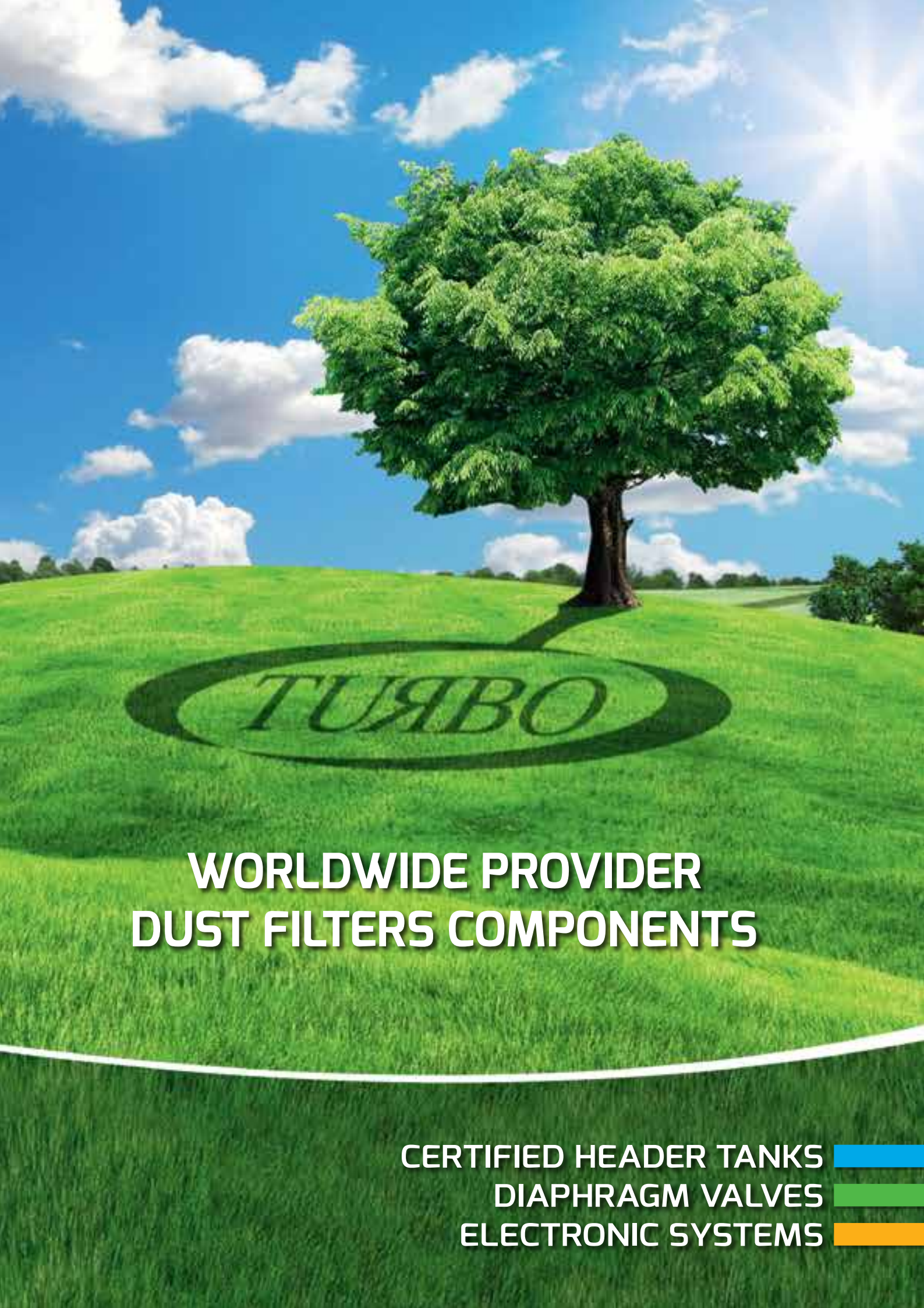


# WORLDWIDE PROVIDER
# DUST FILTERS COMPONENTS

CERTIFIED HEADER TANKS
DIAPHRAGM VALVES
ELECTRONIC SYSTEMS

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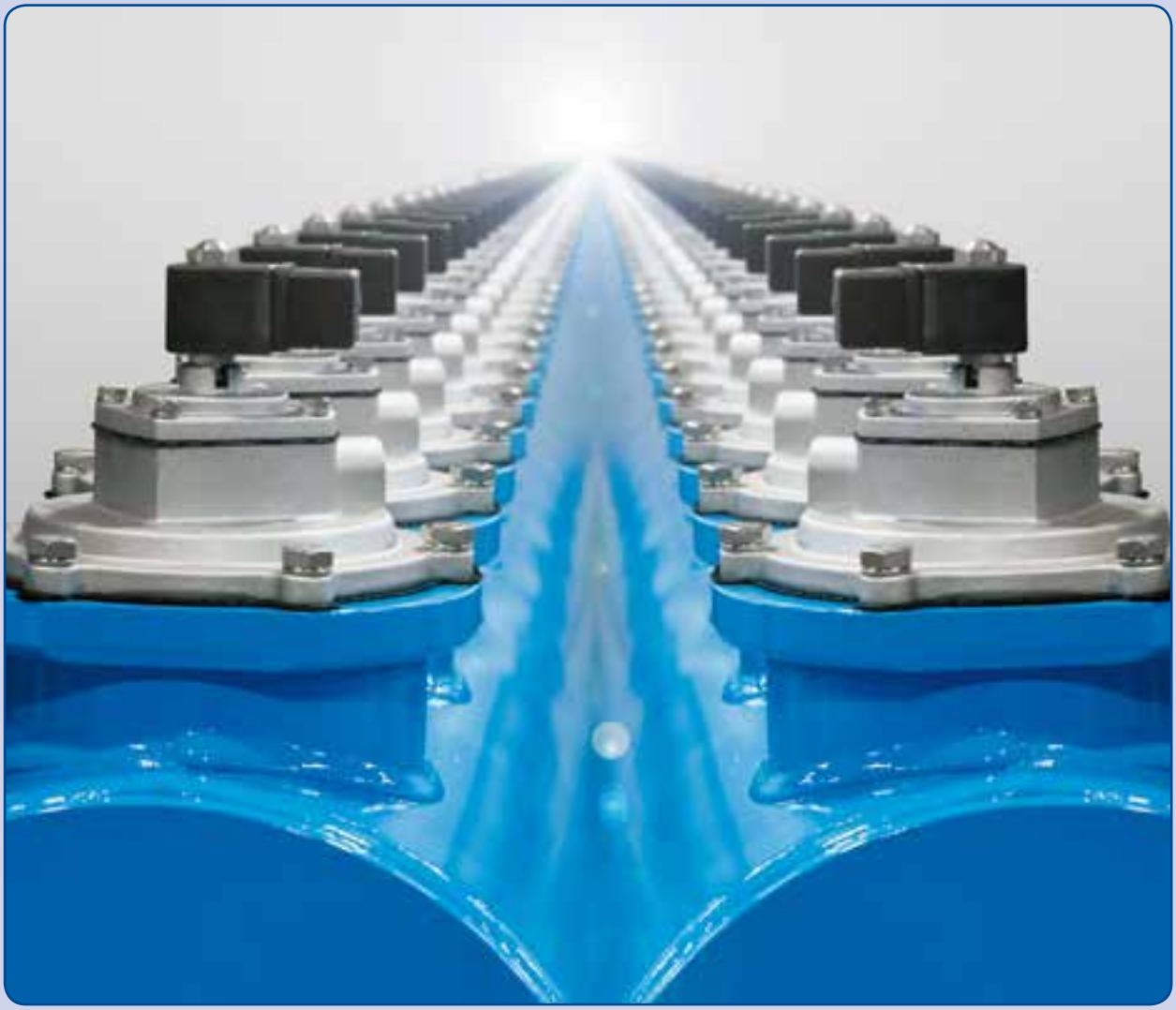
INDEX


Turbo Srl was established in 1998 as the result of its founders' extensive experience in the environmentally-friendly design and manufacture of dust filters.

We have a wide range of diaphragm valves; PED 2014/68/EU and ASME VIII div.1 U and Um Stamp certified header tanks; control electronics; multi-connection and serial electric cabling; several accessories such as bulkheads and air cannons.

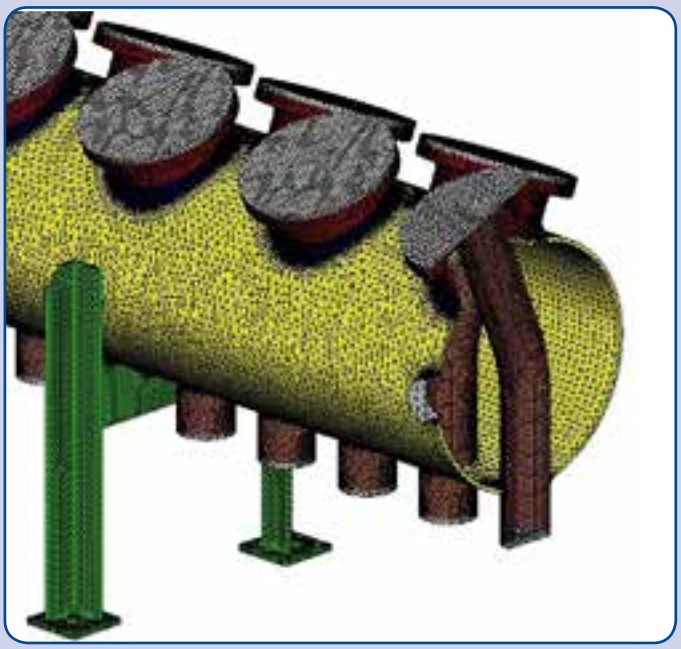


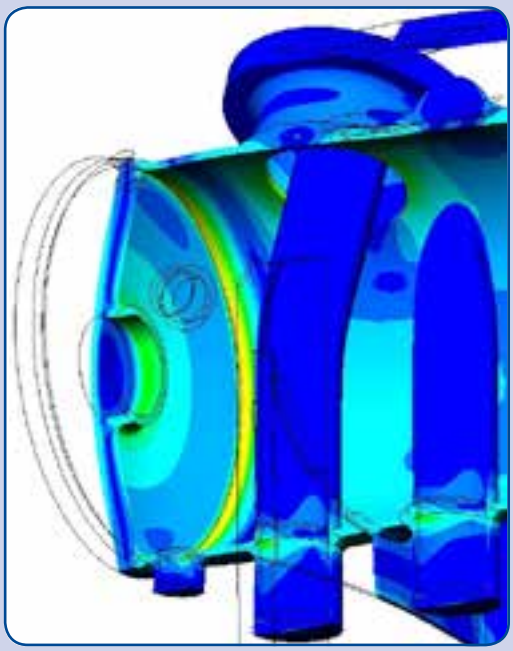
Our technical dept. carries out construction drawings on specific customer request, the highly automated production guarantees flexibility and respect of deliveries requested by customers, all our products are 100% tested and are Made in Italy.

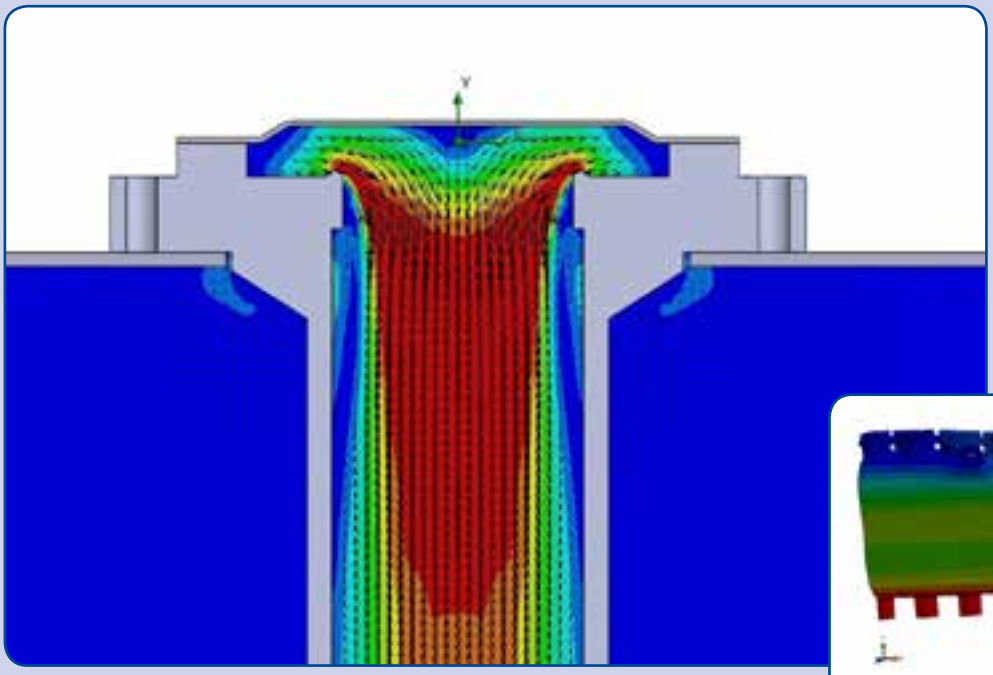
Our company policy is aimed completely at Customer Satisfaction. Since its establishment, Turbo Srl has chosen to share and implement the principles of "Total Quality" and continuous improvement envisioned by the ISO 9001: 2015 Standard.

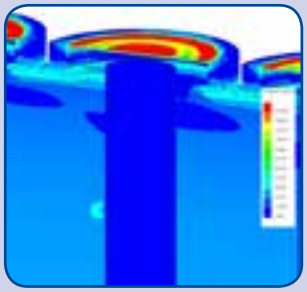
via Po, 33 - 20811 CESANO MADERNO - MB (ITALY)
phone ++39 0362 574024 - fax ++39 0362 574092 - info@turbocontrols.it - www.turbocontrols.it

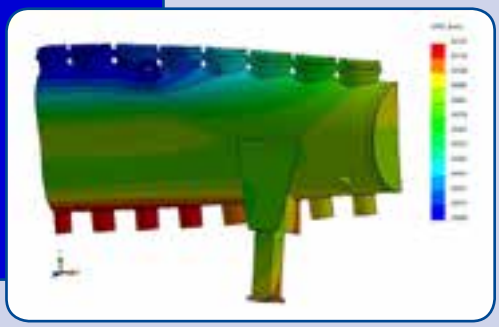
*www.turbocontrols.eu*

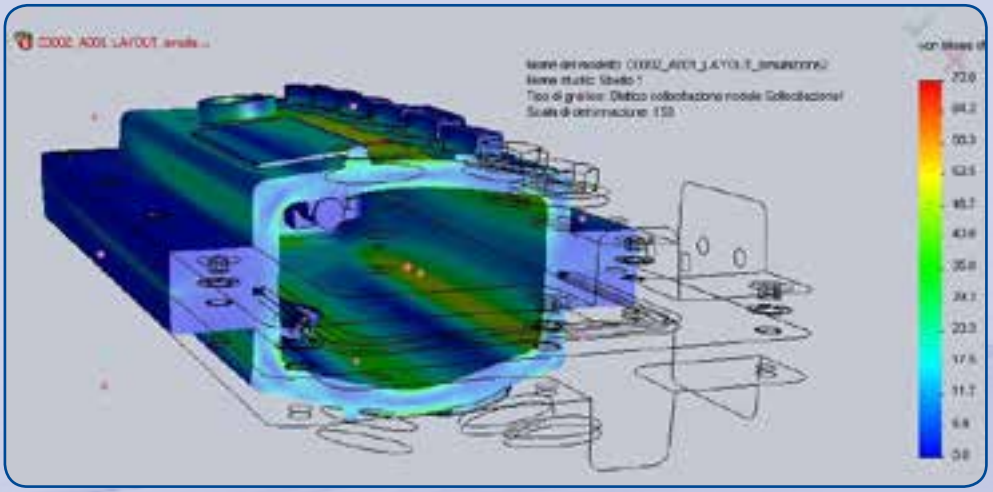












CERTIFICATE

MS CERT

# Certificato di Conformità

del SISTEMA di GESTIONE della QUALITÀ

**Si certifica che il Sistema di Gestione per la Qualità di**

## TURBO S.R.L.

**Indirizzo: Via Po, 33/35 – 20811 – Cesano Maderno (MB)**

**è conforme alla norma e allo scopo sotto riportati**

## ISO 9001:2015

Scopo:

**Progettazione, produzione e commercializzazione di componenti per filtri depolveratori.**

**ANZSIC CODE: 2499**

**CERTIFICAZIONE N °: ITA/QMS/00191**

Emissione n: 01

Data Delibera: 04.09.2017 Valido fino a: 03.09.2020

Revisione n: 01 Data revisione: 05.07.2018

Data Certificazione originale: 23.07.2004

June 2018

*Sorveglianza Audit 1° anno*

Responsabile della Certificazione

June 2019

*Sorveglianza Audit 2° anno*

MS CERT JAS-ANZ IAF

MSCS Critical Location: **MS CERTIFICATION SERVICES PVT. LTD.,** 3/23 R.K.CHATTERJEE ROAD KOLKATA-700042, INDIA.
Local Office (Other Location): **MS CERTIFICATION EUROPE S.R.L.,** VIALE FERRUCCI 10 – 28100, NOVARA (NO), ITALY.
☎: +39 0321 3961 - email: management.msce@gmail.com
www.mscertification.net
The validity of this certificate can be verified at www.jas-anz.org/register and www.mscertification.net
The Certificate is valid only if the annual surveillance mark is signed by auditor on original.

F60.rev.05

The American Society of Mechanical Engineers

CERTIFICATE OF AUTHORIZATION

U

The named company is authorized by the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the certification mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this certification mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

TURBO Srl
via Po 33/35
Cesano Maderno (MB) 20811
Italy

SCOPE:

Manufacture of pressure vessels at the above location only

AUTHORIZED: May 18, 2018
EXPIRES: July 30, 2021
CERTIFICATE NUMBER: 43,296

Board Chair, Conformity Assessment

Managing Director, Conformity Assessment

The American Society of Mechanical Engineers

CERTIFICATE OF AUTHORIZATION

UM

The named company is authorized by the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the certification mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this certification mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

TURBO Srl
via Po 33/35
Cesano Maderno (MB) 20811
Italy

SCOPE:

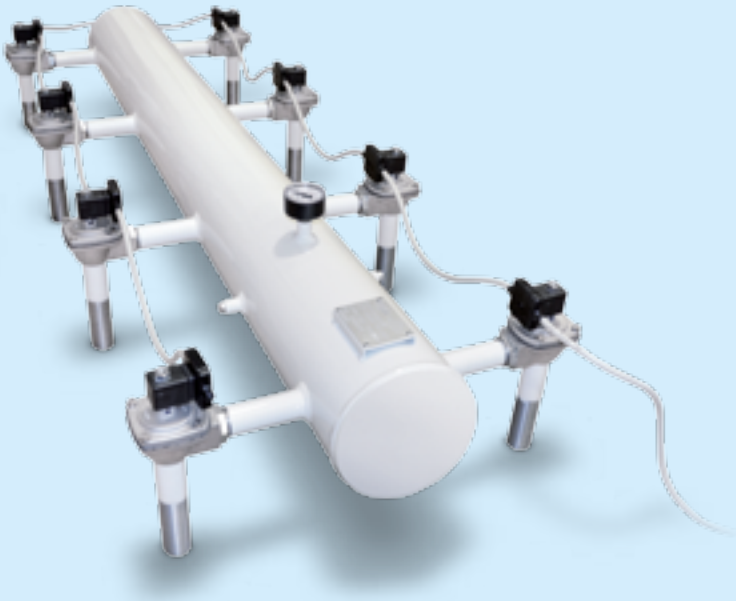
Manufacture of miniature pressure vessels at the above location only

AUTHORIZED: May 18, 2018
EXPIRES: July 30, 2019
CERTIFICATE NUMBER: 43,297

Board Chair, Conformity Assessment

Managing Director, Conformity Assessment

# TURBO HEADER TANKS



## CERTIFIED HEADER TANKS

Turbo boasts a full range of dust collector header tanks compliant with the PED 2014/68/EU Directives. Our header tanks stand out for their high performance and durability.

Our expertise and product customisation allow us to meet the requirements of dust collector system and machine manufacturers.

Turbo mainly makes three types of header tanks:

**1. Steel header tanks**
(Integral, TF, TL, TD, and Pack series)

**2. Aluminium header tanks**
(Alutank series)

**3. AISI 304 and 316 stainless steel header tanks**
(Integral, TF, TL, TD, and Pack series)

We have a wide range of accessories available, among which air cannons, bulkhead connectors, Matrix cabling system, and Eco-Net bus serial cabling system.

Turbo also provides header tanks manufactured in compliance with the ATEX 2014/34/EC Directive compliant with the following marking:

ATEX II 2GD (zone 1 and 21)
ATEX II 3GD(zone 2 and 22).

(The ATEX directive is illustrated at page 109/110)

# TECHNICAL FEATURES

| | | |
|---|---|---|
| **COIL** | | |
| Coil insulation | Class H | |
| Connector | PG 9 EN 175301-803 | |
| Connector + coil protection | IP 65 EN 60529 | |
| the 2014/34 EU Atex Directive | Group II Cat. 2GD + Group II Cat. 3GD | |
| Voltage | | |
| 24V / 50-60 Hz (± 10%) 19VA | | |
| 115V / 50-60 Hz (± 10%) 19VA | | |
| 230V / 50-60 Hz (± 10%) 19VA | | |
| 24 DC (± 10%) 18 Watt | | |
| **VALVE CONSTRUCTION** | | |
| Cover | Die-cast aluminium | |
| Valve body | Die-cast aluminium | |
| Pilot unit | Stainless Steel | |
| Screws | Stainless Steel | |
| Std diaphragm | -20 °C + 80 °C | |
| Viton diaphragm | -20 °C + 200°C | |
| Low temperature diaphragm | Elastomer textile -40°C; + 80°C | |
| Diaphragm disk | Stainless Steel | |
| **TANK OPERATION** | | |
| Fluids | Compressed air - nitrogen | |
| Operating pressure | between 0.5 and 8 bar | |
| Carbon steel operating temperature | -20 °C + 80 °C | |
| Carbon steel low operating temperature | -40°C + 80 °C | |
| Stainless steel operating temperature | -50°C + 200°C | |
| the 2014/34 EU Atex Directive | Group II Cat. 2 GD | |
| | Group II Cat. 3 GD | |
| **TANK CAPACITY** | | |
| Dn 4” (114 mm) | 8.9 | litres/metre |
| Dn 5” (141.3 mm) | 13.6 | litres/metre |
| Dn 6” (168 mm) | 19.8 | litres/metre |
| Dn 8” (219 mm) | 33.4 | litres/metre |
| Dn 10” (273 mm) | 53.2 | litres/metre |
| Dn 12” (324 mm) | 76 | litres/metre |
| Dn 14” (356 mm) | 91 | litres/metre |

La range of TURBO header tanks

- **Global immersion**
  In global immersion header tanks, the diaphragm valve is fully immersed in the fluid.
  This feature ensures a particularly high yield.
- **With threaded stubs**
  These ensure a perfectly rigid valve assembly and alignment.
  The valves used for these header tanks have threaded connections.
- **With plain stubs**
  This solution allows for extremely quick and efficient valve assembly.
- **Alutank aluminium header tanks**
  These lightweight header tanks are fully made according to customer requirements and are particularly easy to handle. The anodised aluminium provides particular resistance against weather agents whilst preventing oxidation. It also ensures clean compressed air supply.

# HEADER TANKS

| | | |
|---|---|---|
| GLOBAL IMMERSION HEADER TANKS | INTEGRAL series | PED 2014/68/EU |
| HEADER TANKS WITH THREADED STUBS | TF series | PED 2014/68/EU |
| HEADER TANKS WITH THREADED STUBS FOR STRAIGHT THROUGH VALVES | TL series | PED 2014/68/EU |
| HEADER TANKS WITH PLAIN STUBS | TD series | PED 2014/68/EU |
| STAINLESS STEEL HEADER TANKS | XTF - INX series | PED 2014/68/EU |
| GLOBAL IMMERSION HEADER TANKS | ALUTANK series | PED 2014/68/EU |
| DEPACKING HEADER TANKS | PACK series | PED 2014/68/EU |

## CERTIFICATES COMPLIANT WITH THE 2014/68/EU - PED DIRECTIVES

# HOW TO ORDER

| *example* | INTEGRAL | 6 | P | 25 | 02450 | N10 | P150 | F | G1 |
|---|---|---|---|---|---|---|---|---|---|

**HEADER TANK MODEL**

| | |
|---|---|
| GLOBAL IMMERSION = | INTEGRAL |
| WITH THREADED STUBS = | TF - TL |
| WITH PLAIN STUBS = | TD |
| ALUMINIUM = | ALUTANK |

**TANK DIAMETER**

| | |
|---|---|
| 4” = | 4 |
| 5” = | 5 |
| 6” = | 6 |
| 8” = | 8 |
| 10” = | 10 |
| 12” = | 12 |
| 14” = | 14 |

| | |
|---|---|
| BUILT-IN PILOT = | P |
| REMOTE PILOT = | M |

**VALVE DIAMETER**

| | |
|---|---|
| 1/2” = | 10 |
| 3/4” = | 20 |
| 1” = | 25 |
| 1 ½" = | 30 |
| 1 ½" = | 35 |
| 1 ½" = | 40 |
| 1 ½" = | 45 |
| 2” = | 50 |
| 2” = | 54 |
| 2” = | 55 |
| 2 ½" = | 65 |
| 2 ½" = | 71 |
| 3” = | 75 |
| 3” = | 80 |
| 3 ½" = | 100 |

**COIL VOLTAGE**

| | |
|---|---|
| 24V/50-60Hz = | 02450 |
| 115V/50-60Hz = | 11050 |
| 230V/50-60Hz = | 22050 |
| 24VDC = | 024DC |

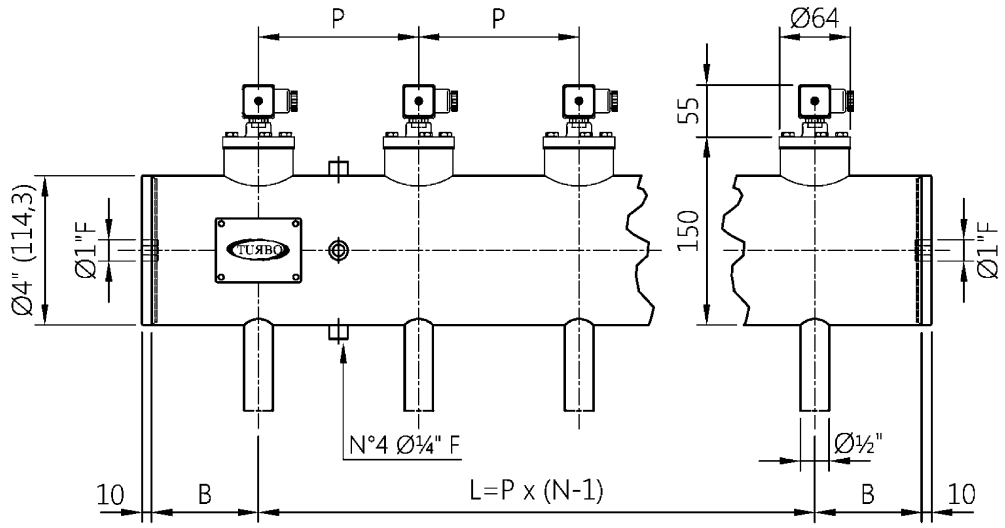
| | |
|---|---|
| N = | NUMBER OF VALVES |
| P = | PITCH |
| FLAT ENDS = | F |

**ONLY FOR INTEGRAL - ALUTANK series**

| | |
|---|---|
| SHORT PLAIN OUTLET PIPE = | G1 |
| LONG PLAIN OUTLET PIPE = | G2 |
| LONG THREADED OUTLET PIPE = | G3 |
| SHORT THREADED OUTLET PIPE = | G4 |

The code, INTEGRAL 6P2502450N10P150FG1 represents a global immersion header tank of the Integral series, which has a 6’’ diameter (6), electric pilots installed (P), 10 (N10) x 1’’ valves (25) powered by a 24V 50Hz voltage (02450) and having a 150 mm pitch (P150). The bottoms are flat (F) and the outlet pipes are short and plain (G1).

# 4" INTEGRAL SERIES WITH ½" DN VALVES




P min = 102 / B min = 55

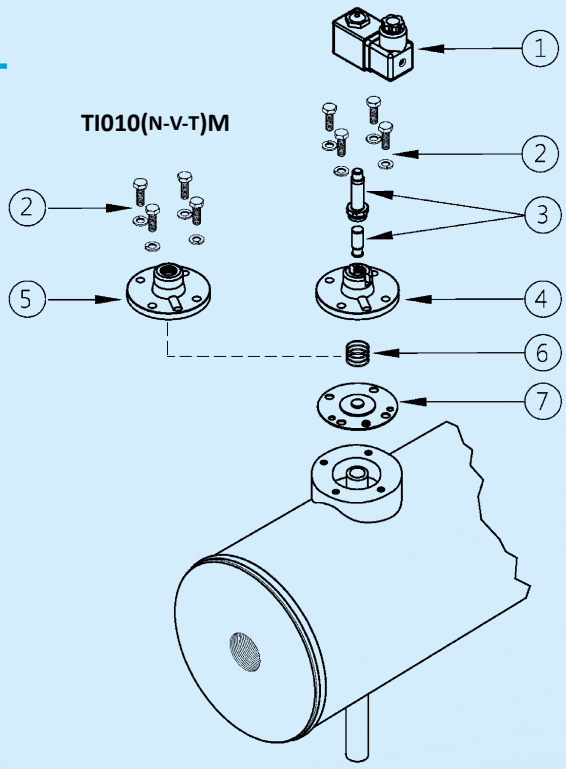
For special versions of P min and B min, please contact our technical department

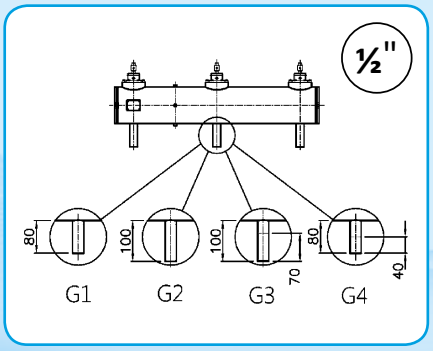
| DESCRIPTION | | TI010(N-V-T)P / TI010(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

**TI010(N-V-T)P**

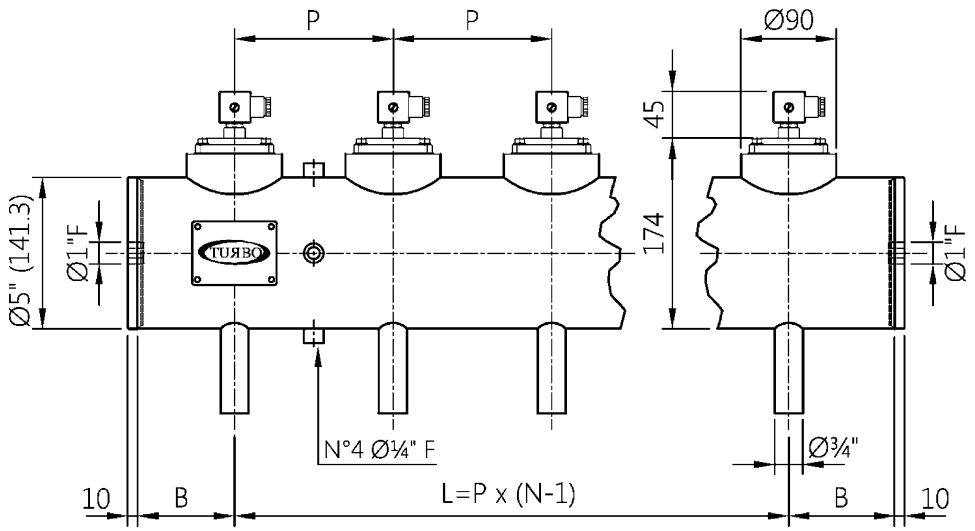
**TI010(N-V-T)M**




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

# 5" INTEGRAL SERIES WITH ¾" DN VALVES




P min = 120 / B min = 90

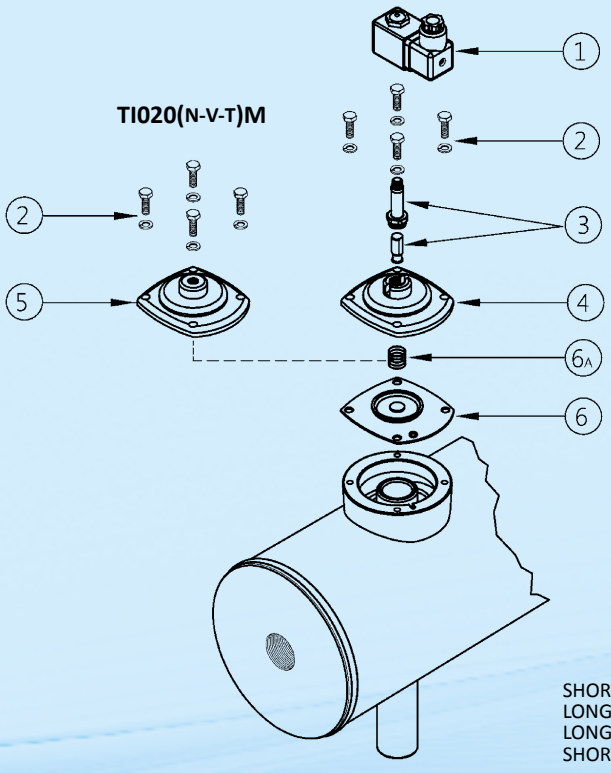
For special versions of P min and B min, please contact our technical department

| DESCRIPTION | | TI020(N-V-T)P / TI020(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

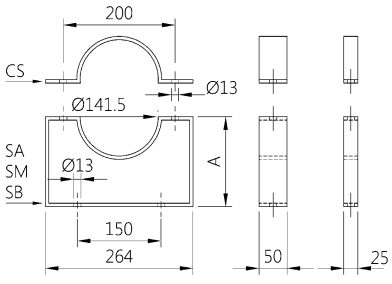
**TI020(N-V-T)P**

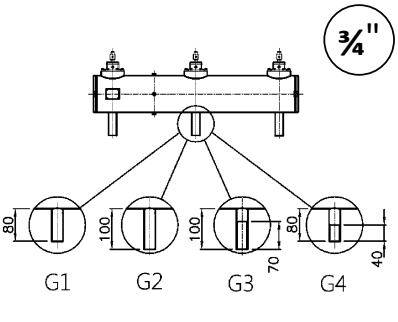
**TI020(N-V-T)M**




BRACKETS

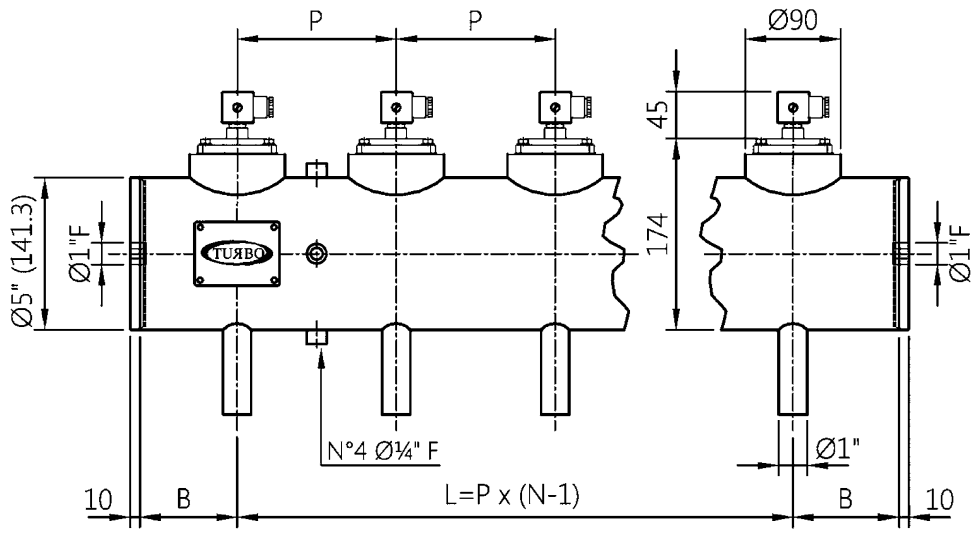
CS = COLLAR
SA = HIGH SUPPORT A = 180
SM= MEDIUM SUPPORT A = 160
SB = LOW SUPPORT A = 95




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

# 5" INTEGRAL SERIES WITH 1" DN VALVES

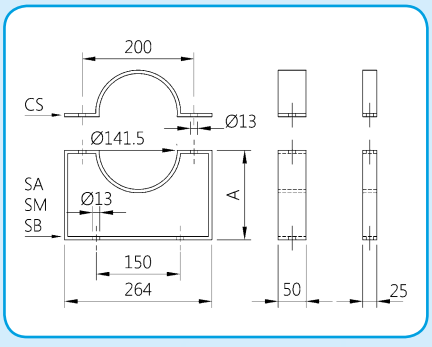



P min = 120 / B min = 90

For special versions of P min and B min, please contact our technical department

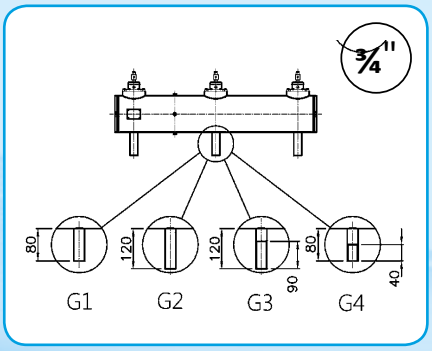
| DESCRIPTION | | TI025(N-V-T)P / TI025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

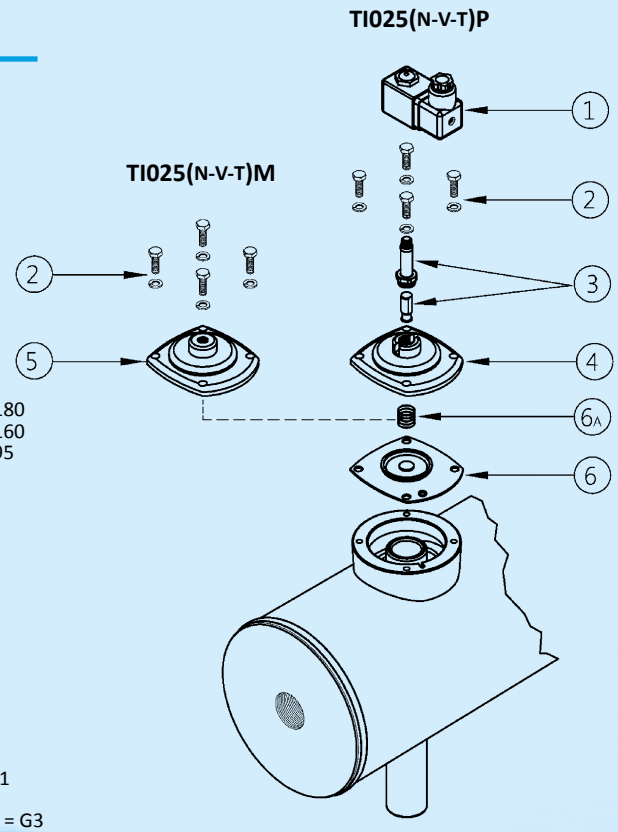



BRACKETS

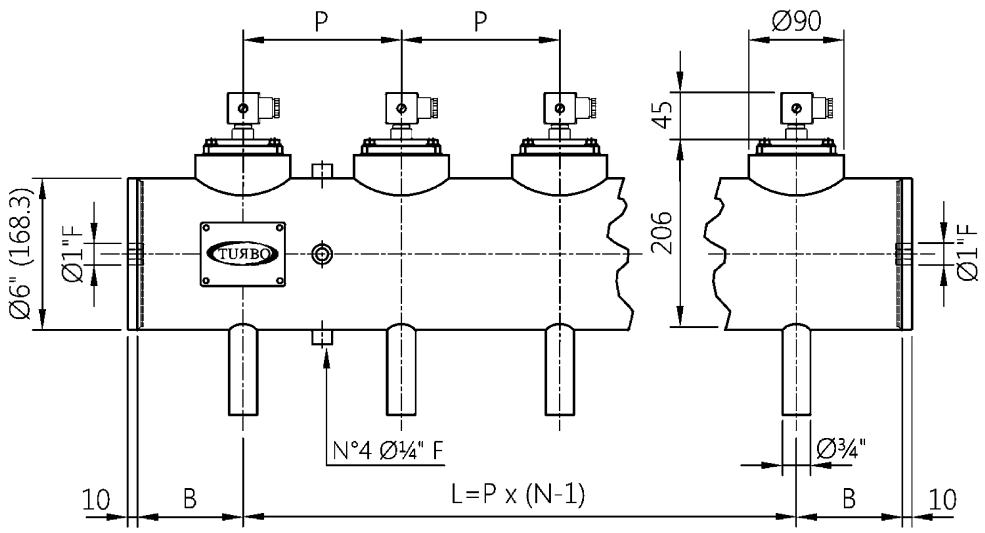
CS = COLLAR
SA = HIGH SUPPORT A = 180
SM= MEDIUM SUPPORT A = 160
SB = LOW SUPPORT A = 95




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4



# 6" INTEGRAL SERIES WITH ¾" DN VALVES




P min = 120 / B min = 90

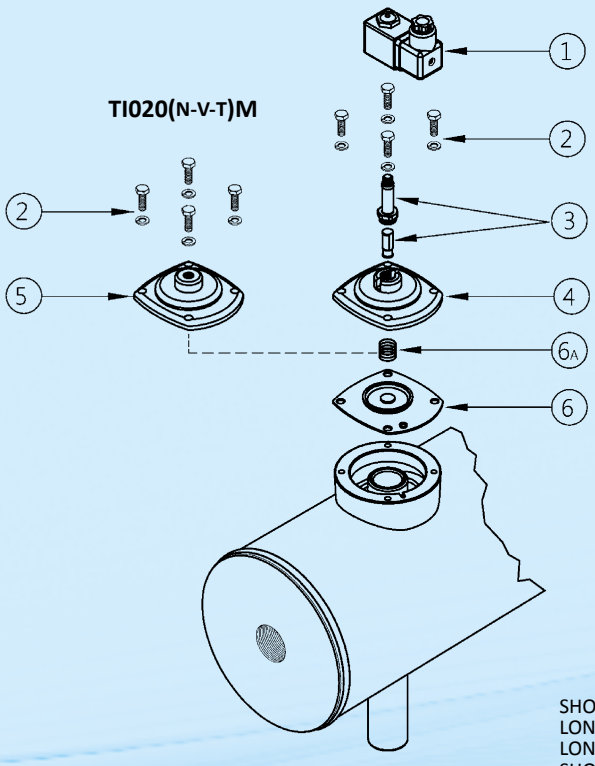
For special versions of P min and B min, please contact our technical department

| DESCRIPTION | | TI020(N-V-T)P / TI020(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

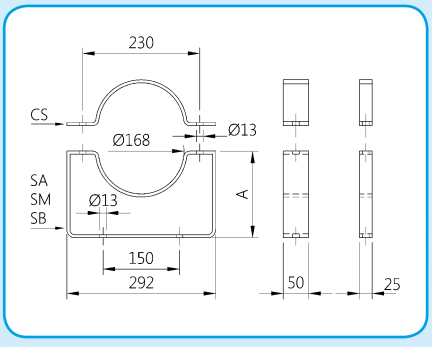
**TI020(N-V-T)P**

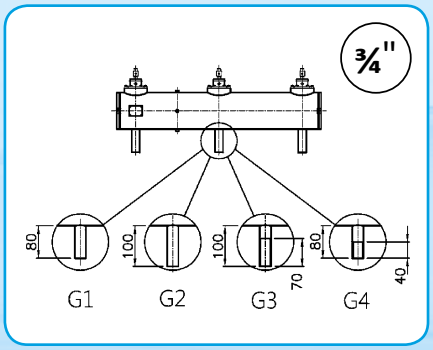
**TI020(N-V-T)M**




BRACKETS

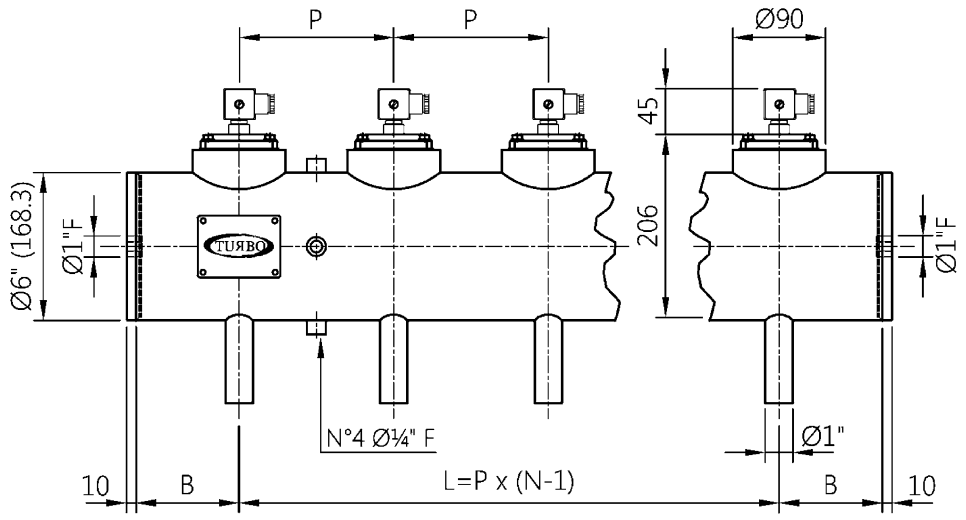
CS = COLLAR
SA = HIGH SUPPORT A = 200
SM= MEDIUM SUPPORT A = 170
SB = LOW SUPPORT A = 109




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

# 6" INTEGRAL SERIES WITH 1" DN VALVES

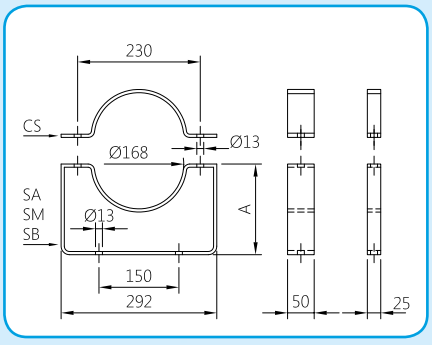



P min = 120 / B min = 90

For special versions of P min and B min, please contact our technical department

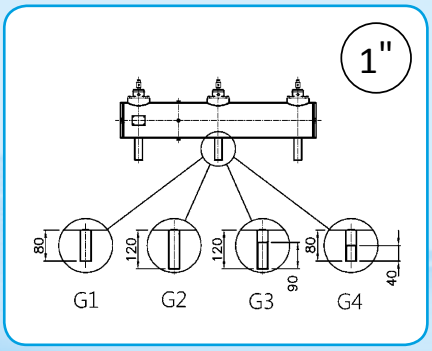
| DESCRIPTION | | TI025(N-V-T)P / TI025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac




BRACKETS

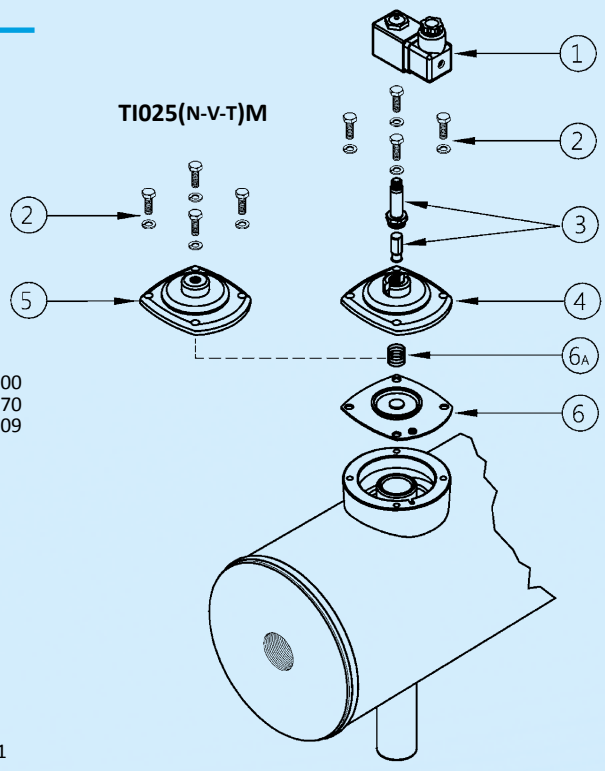
CS = COLLAR
SA = HIGH SUPPORT A = 200
SM= MEDIUM SUPPORT A = 170
SB = LOW SUPPORT A = 109



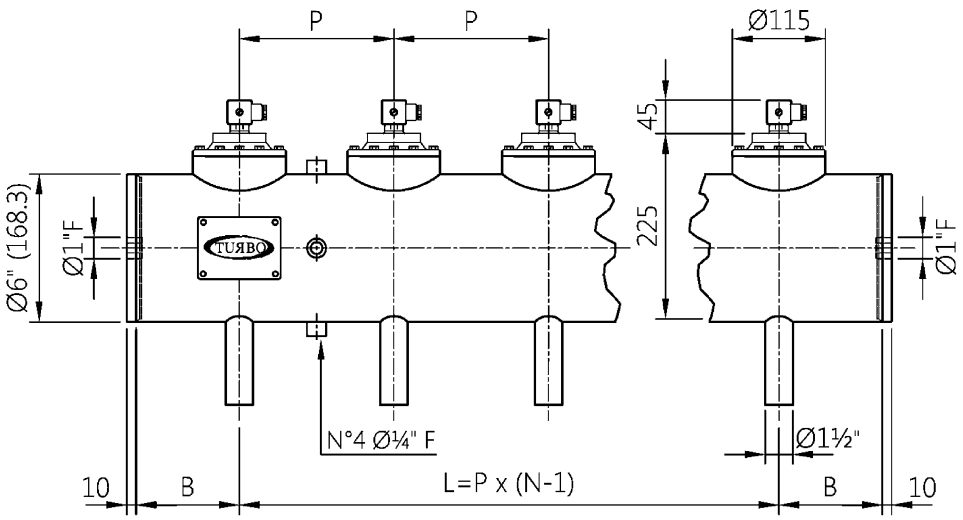

SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

TI025(N-V-T)M

TI025(N-V-T)P



# 6" INTEGRAL SERIES WITH 1½" DN VALVES

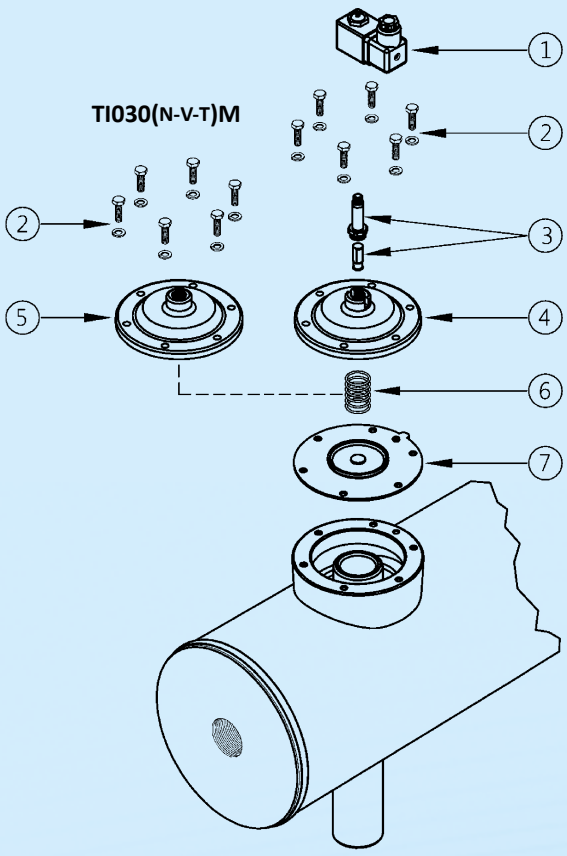



P min = 145 / B min = 100

For special versions of P min and B min, please contact our technical department

**TI030(N-V-T)P**

**TI030(N-V-T)M**

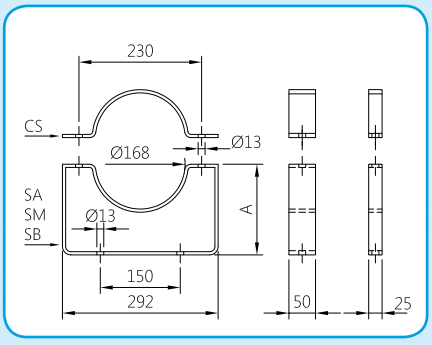


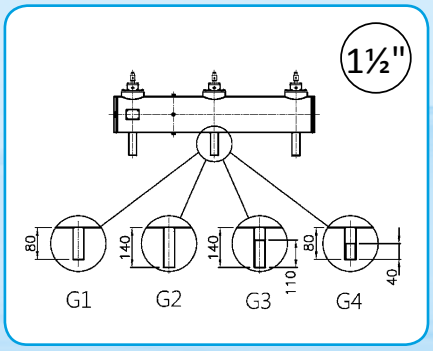

| DESCRIPTION | | TI030(N-V-T)P / TI030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6 | Diaphragm spring | 3241018 |
| 7 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

BRACKETS

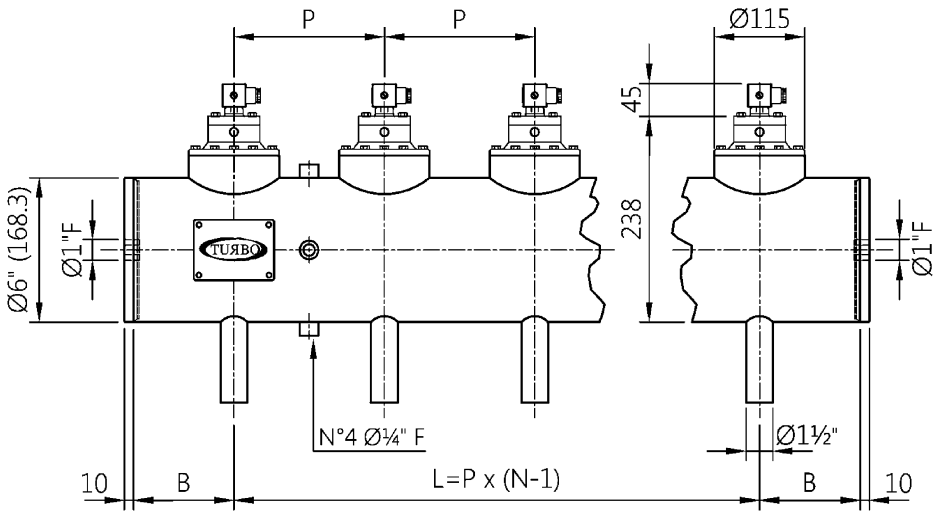
CS = COLLAR
SA = HIGH SUPPORT A = 200
SM= MEDIUM SUPPORT A = 170
SB = LOW SUPPORT A = 109




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

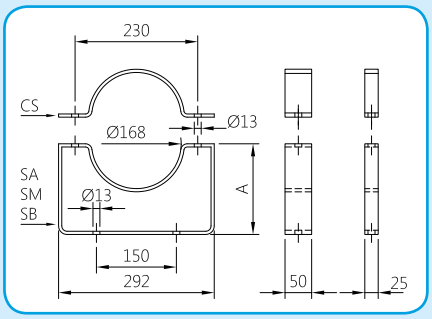
# 6" INTEGRAL SERIES WITH 1½" DN VALVES




P min = 145 / B min = 100

For special versions of P min and B min, please contact our technical department

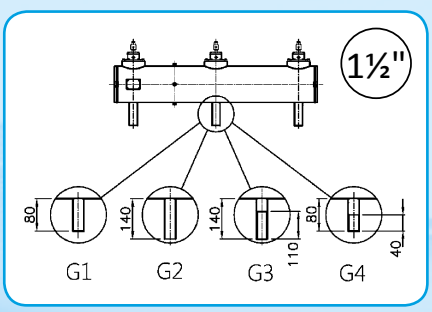
| DESCRIPTION | | TI035(N-V-T)P / TI035(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | 0.5 ÷ 6 bar - 0.5 ÷ 8 bar Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |




V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

BRACKETS

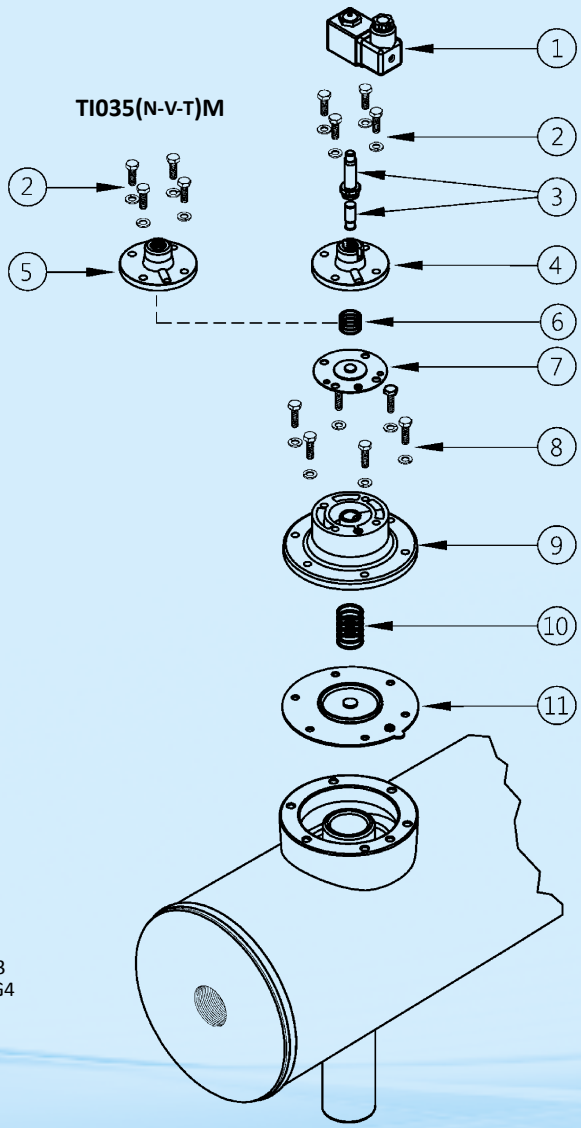
CS = COLLAR
SA = HIGH SUPPORT A = 200
SM= MEDIUM SUPPORT A = 170
SB = LOW SUPPORT A = 109



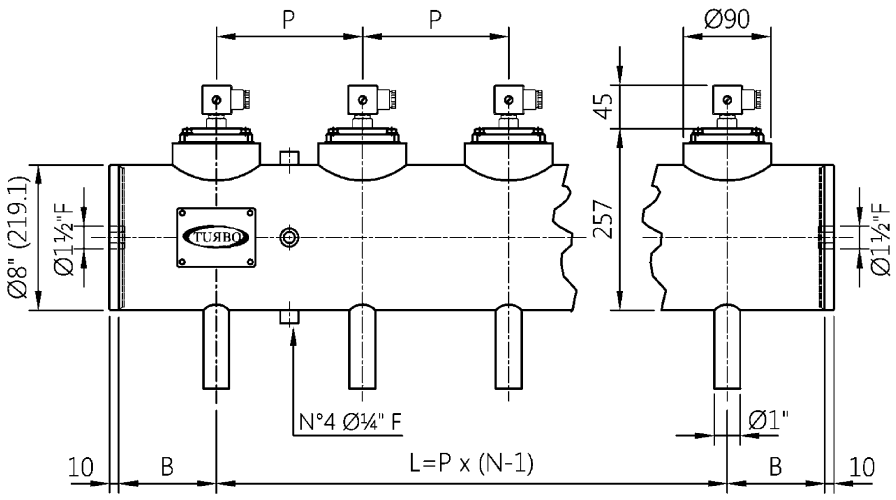

SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

**TI035(N-V-T)P**

**TI035(N-V-T)M**



# 8" INTEGRAL SERIES WITH 1" DN VALVES




P min = 120 / B min = 100

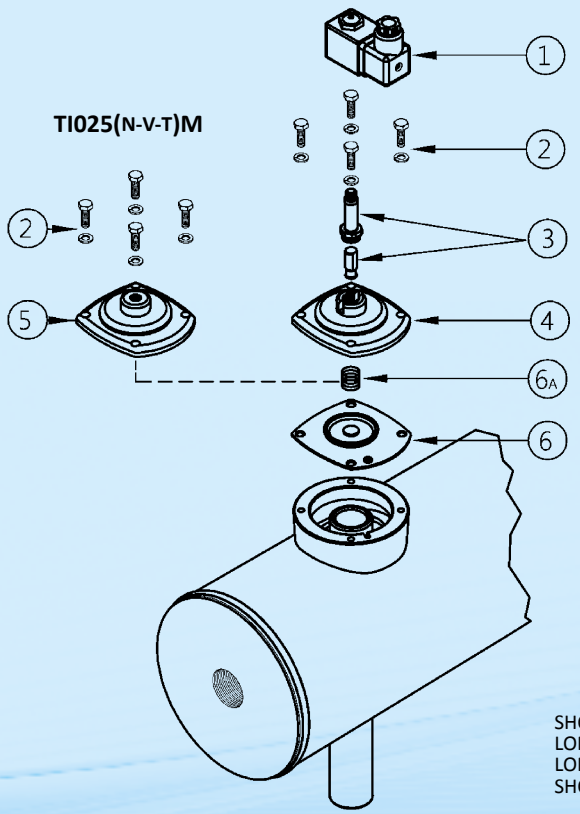
For special versions of P min and B min, please contact our technical department

| DESCRIPTION | | TI025(N-V-T)P / TI025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

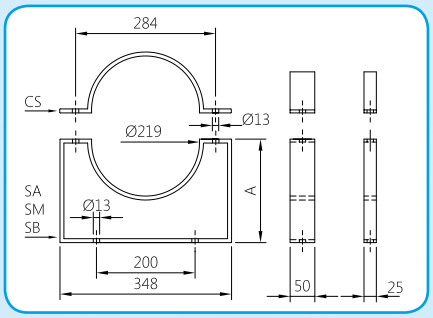
**TI025(N-V-T)P**

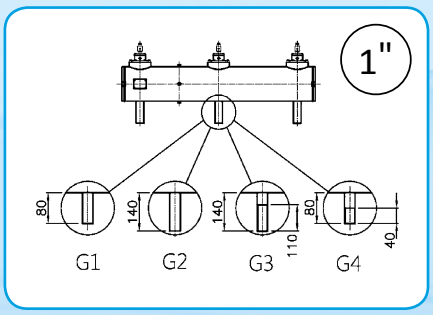
**TI025(N-V-T)M**




BRACKETS

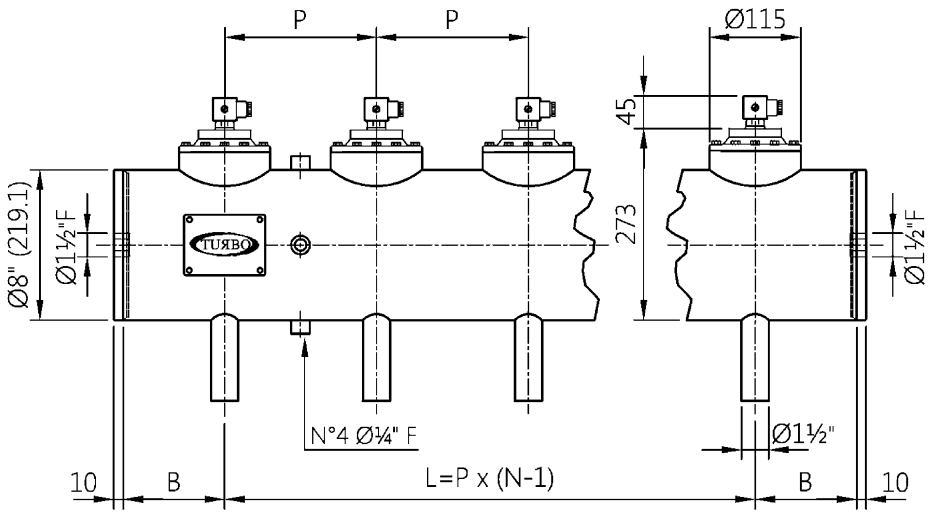
CS = COLLAR
SA = HIGH SUPPORT A = 270
SM= MEDIUM SUPPORT A = 210
SB = LOW SUPPORT A = 134




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

# 8" INTEGRAL SERIES WITH 1½" DN VALVES




P min = 145 / B min = 100

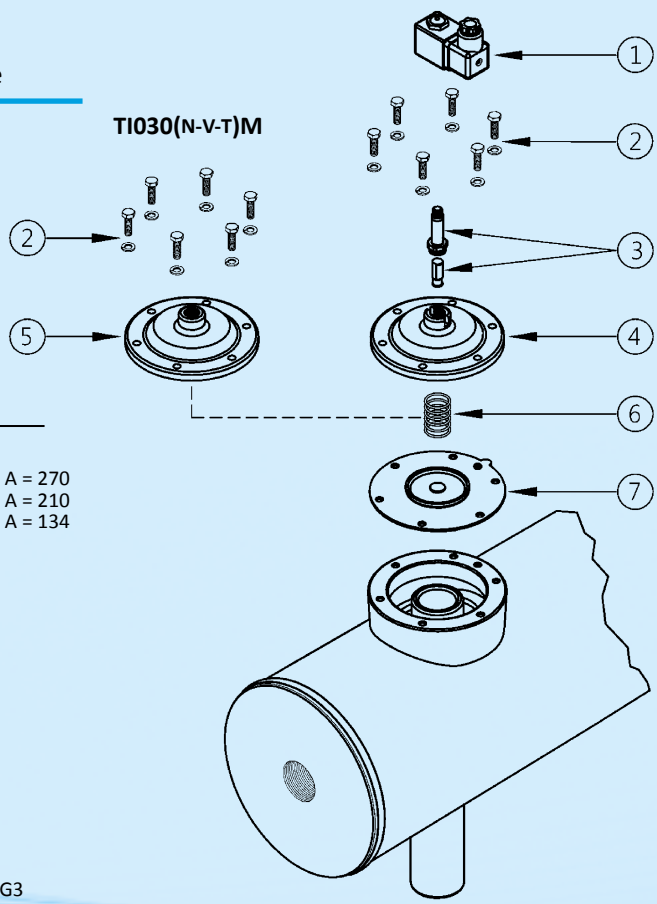
For special versions of P min and B min, please contact our technical department

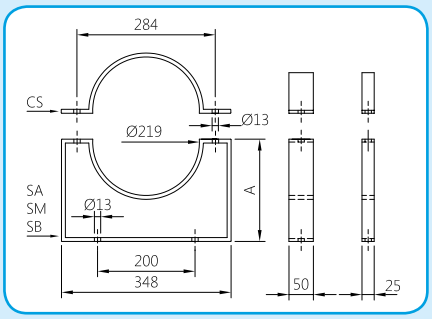
| DESCRIPTION | | TI030(N-V-T)P / TI030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6 | Diaphragm spring | 3241018 |
| 7 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

**TI030(N-V-T)P**

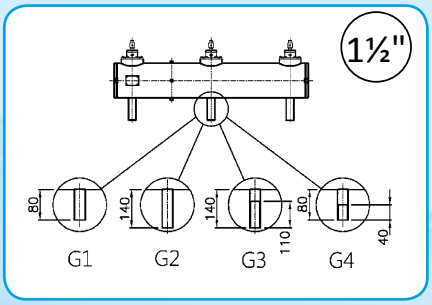
**TI030(N-V-T)M**



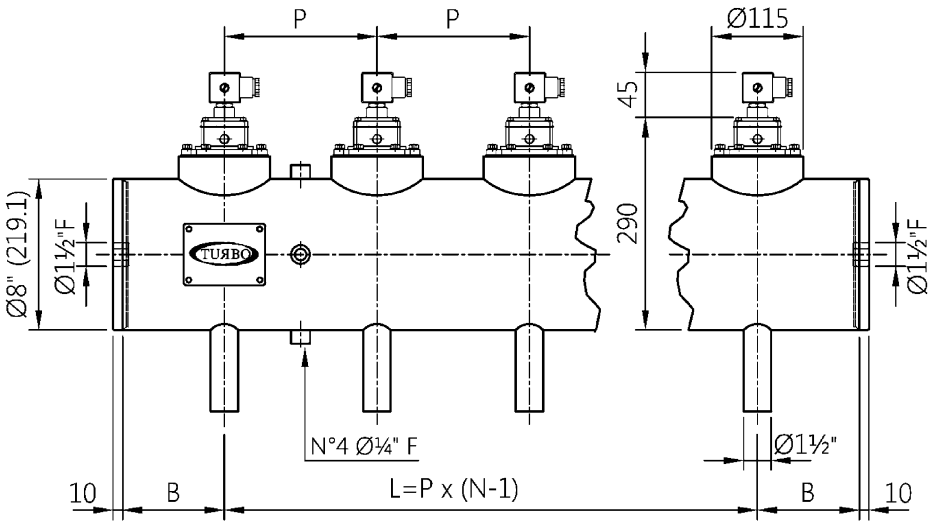

BRACKETS

CS = COLLAR
SA = HIGH SUPPORT A = 270
SM= MEDIUM SUPPORT A = 210
SB = LOW SUPPORT A = 134




SHORT PLAIN STUB = G1
LONG PLAIN STUB = G2
LONG THREADED STUB = G3
SHORT THREADED STUB = G4

# 8" INTEGRAL SERIES WITH 1½" DN VALVES

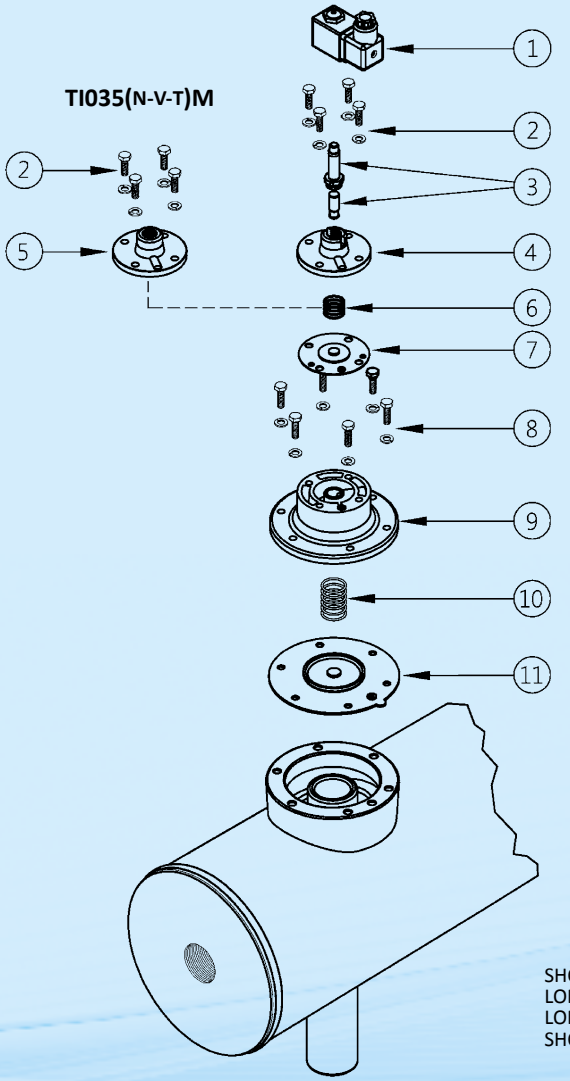



P min = 145 / B min = 100

For special versions of P min and B min, please contact our technical department

**TI035(N-V-T)P**

**TI035(N-V-T)M**

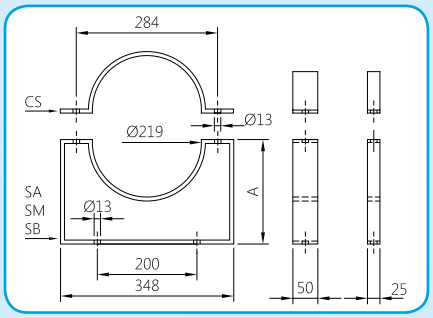


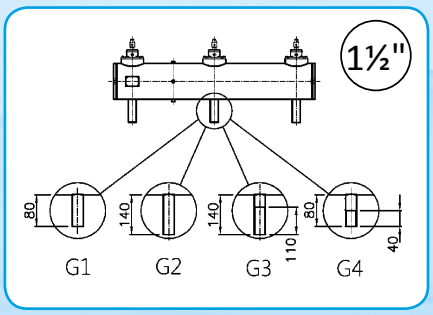

| DESCRIPTION | | TI035(N-V-T)P / TI035(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary Diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |

V## / V## = 24 Vdc - 24 Vac
- 115 Vac - 230 Vac

BRACKETS

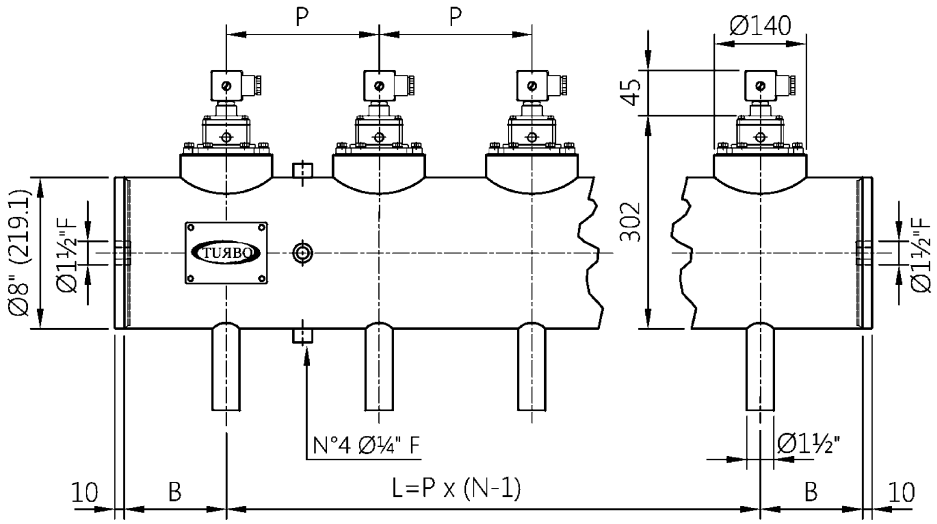
CS = COLLAR
SA = HIGH SUPPORT A = 270
SM= MEDIUM SUPPORT A = 210
SB = LOW SUPPORT A = 134




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

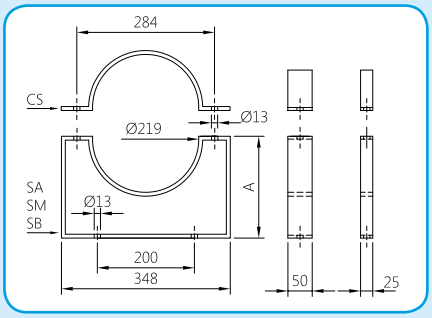
# 8" INTEGRAL SERIES WITH 1½" DN VALVES




P min = 160 / B min = 100

For special versions of P min and B min, please contact our technical department

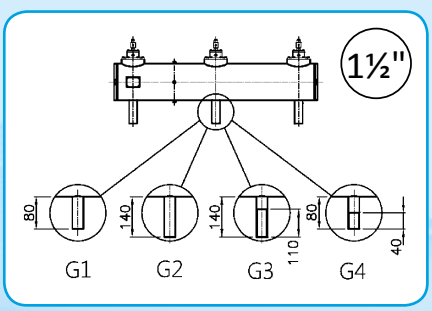
| DESCRIPTION | | TI040(N-V-T)P / TI040(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE08X20X6 |
| 8 | Cover | 1251620 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary diaphragm (N-V-T) | TKISM040N Neoprene<br>TKISM040V Viton<br>TKISM040T Low temperature |




V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

BRACKETS

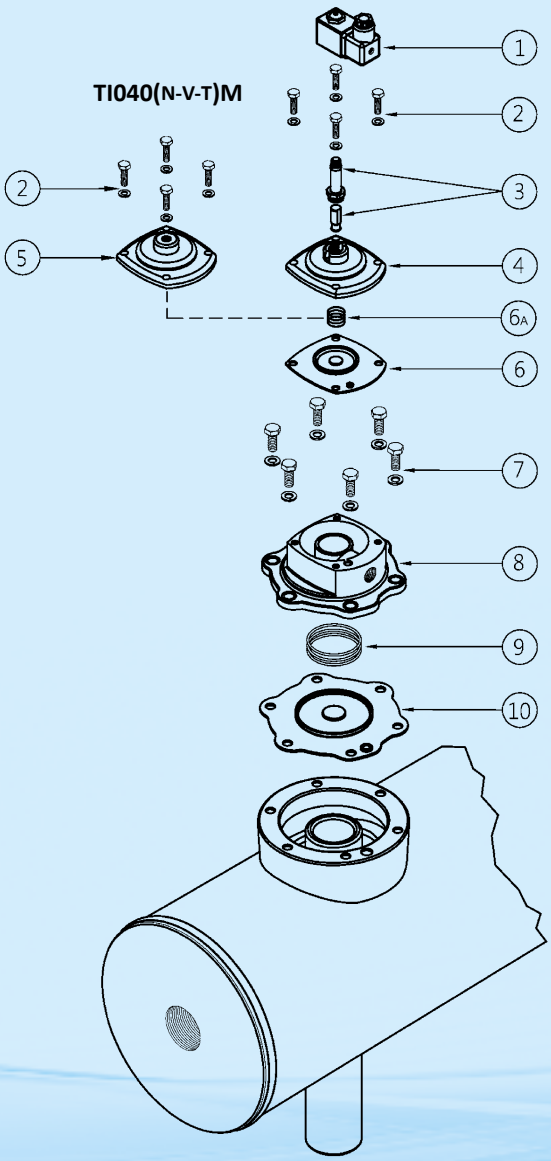
CS = COLLAR
SA = HIGH SUPPORT A = 270
SM= MEDIUM SUPPORT A = 210
SB = LOW SUPPORT A = 134



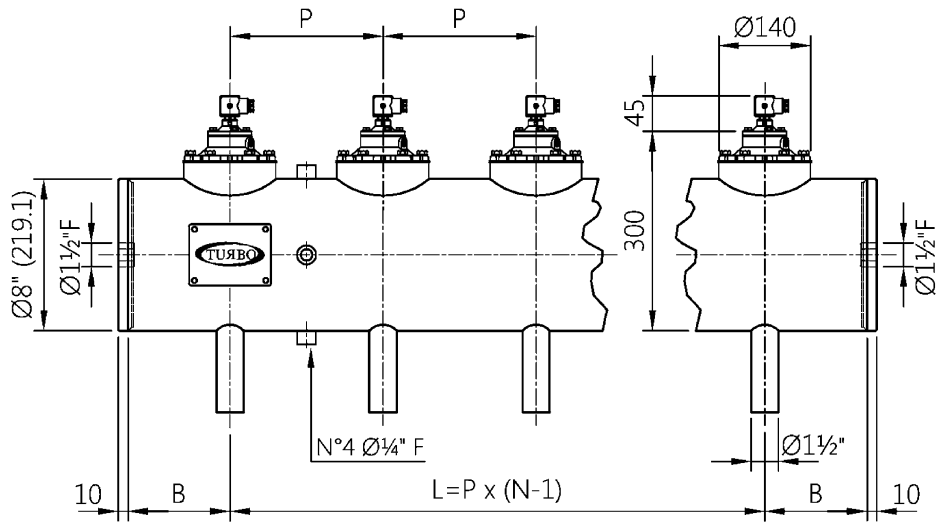

SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

**TI040(N-V-T)P**

**TI040(N-V-T)M**



# 8" INTEGRAL SERIES WITH 1½" DN VALVES

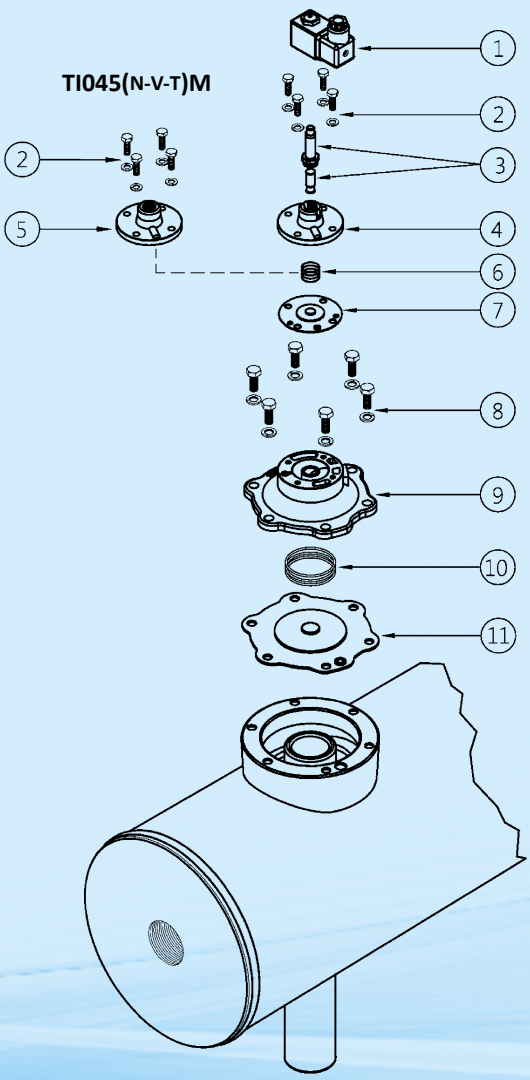



P min = 160 / B min = 100

For special versions of P min and B min, please contact our technical department

**TI045(N-V-T)P**

**TI045(N-V-T)M**

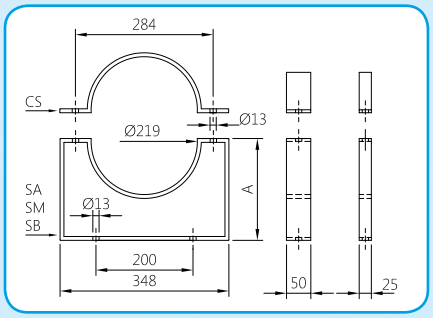


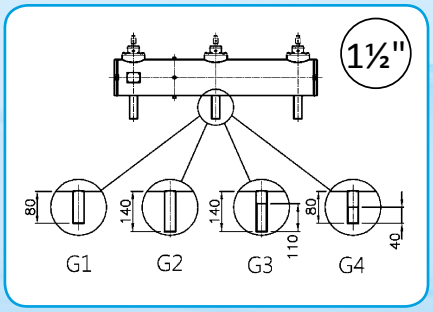

| DESCRIPTION | | TI045(N-V-T)P / TI045(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251715 |
| 5 | Remote cover | 1251745 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE08X20X6 |
| 9 | Cover | 1251840 |
| 10 | Diaphragm spring | 3241024 |
| 11 | Primary diaphragm (N-V-T) | TKISM045N Neoprene<br>TKISM045V Viton<br>TKISM045T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

BRACKETS

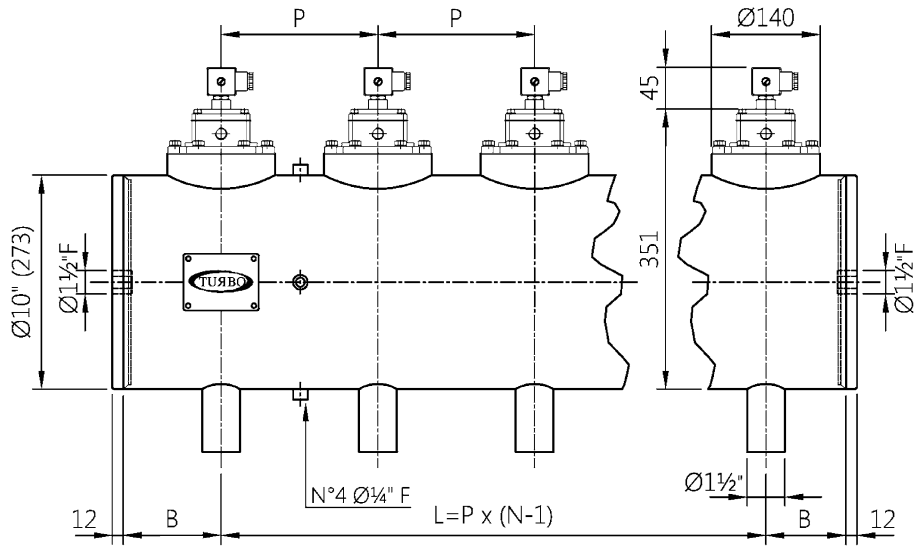
CS = COLLAR
SA = HIGH SUPPORT A = 270
SM= MEDIUM SUPPORT A = 210
SB = LOW SUPPORT A = 134




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

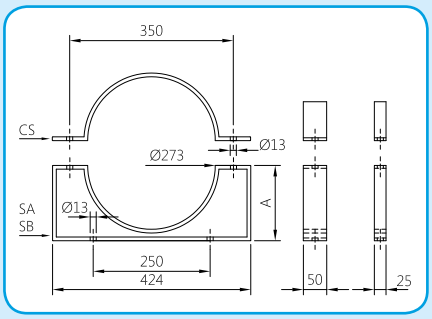
# 10" INTEGRAL SERIES WITH 1½" DN VALVES




P min = 170 / B min = 100

For special versions of P min and B min, please contact our technical department

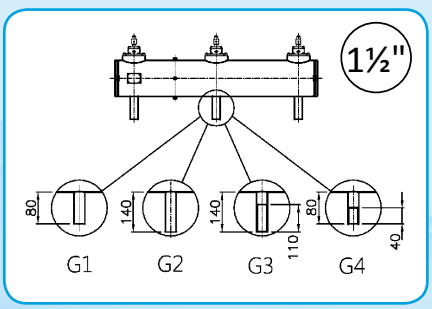
| DESCRIPTION | | TI040(N-V-T)P / TI040(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE08X20X6 |
| 8 | Cover | 1251620 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM040N Neoprene<br>TKISM040V Viton<br>TKISM040T Low temperature |




V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

BRACKETS

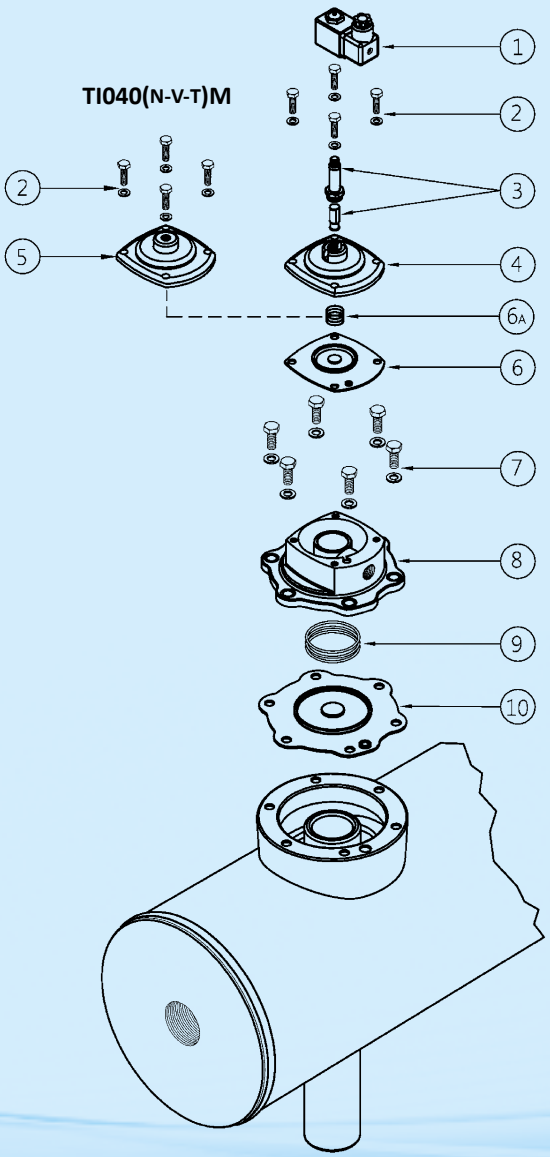
CS = COLLAR
SA = HIGH SUPPORT A = 273
SB = LOW SUPPORT A = 161



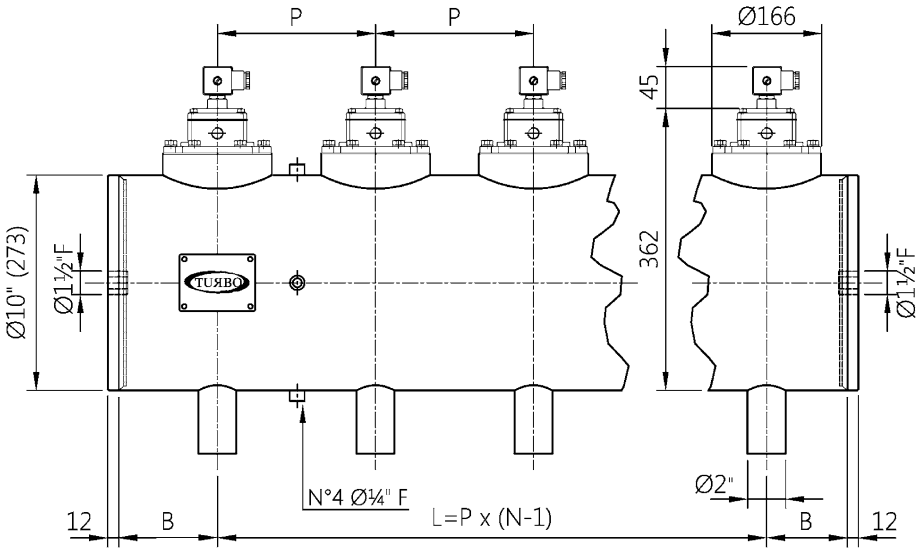

SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

TI040(N-V-T)P

TI040(N-V-T)M



# 10" INTEGRAL SERIES WITH 2" DN VALVES

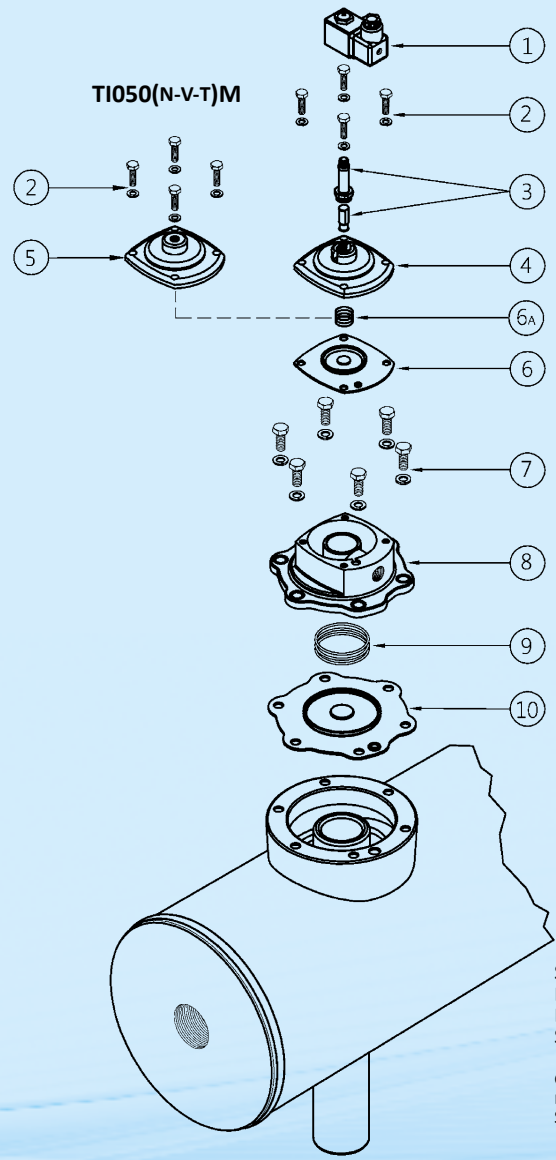



P min = 185 / B min = 115

For special versions of P min and B min, please contact our technical department

**TI050(N-V-T)P**

**TI050(N-V-T)M**

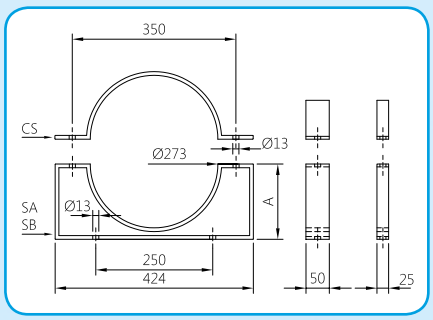


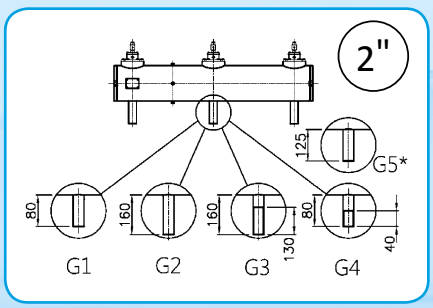

| DESCRIPTION | | TI050(N-V-T)P / TI050(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251650 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM050N Neoprene<br>TKISM050V Viton<br>TKISM050T Low temperature |

V## / V## = 24 Vdc - 24 Vac
- 115 Vac - 230 Vac

BRACKETS

CS = COLLAR
SA = HIGH SUPPORT A = 273
SB = LOW SUPPORT A = 161

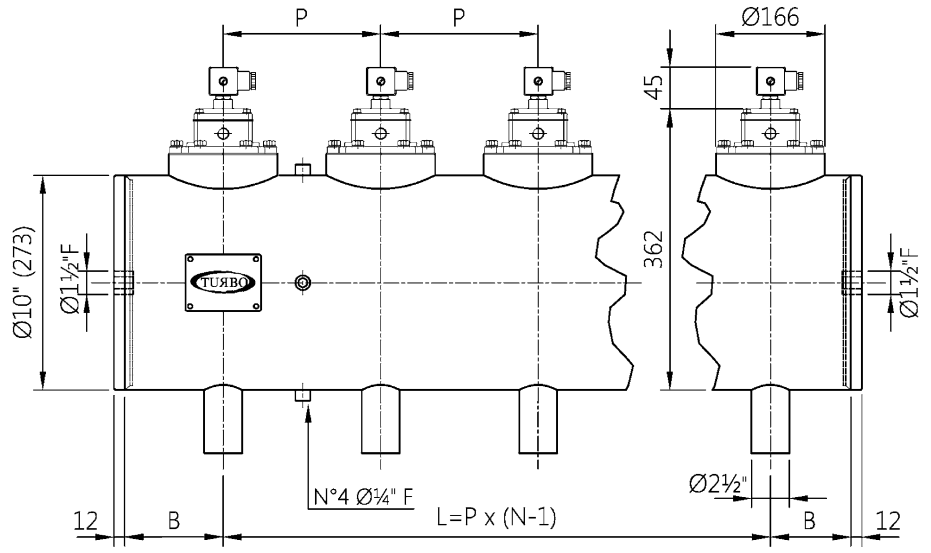



SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

G5(*) USED FOR COUPLING WITH PD55 BULK CONNECTORS VIA SA10 BRACKET

# 10" INTEGRAL SERIES WITH 2½" DN VALVES



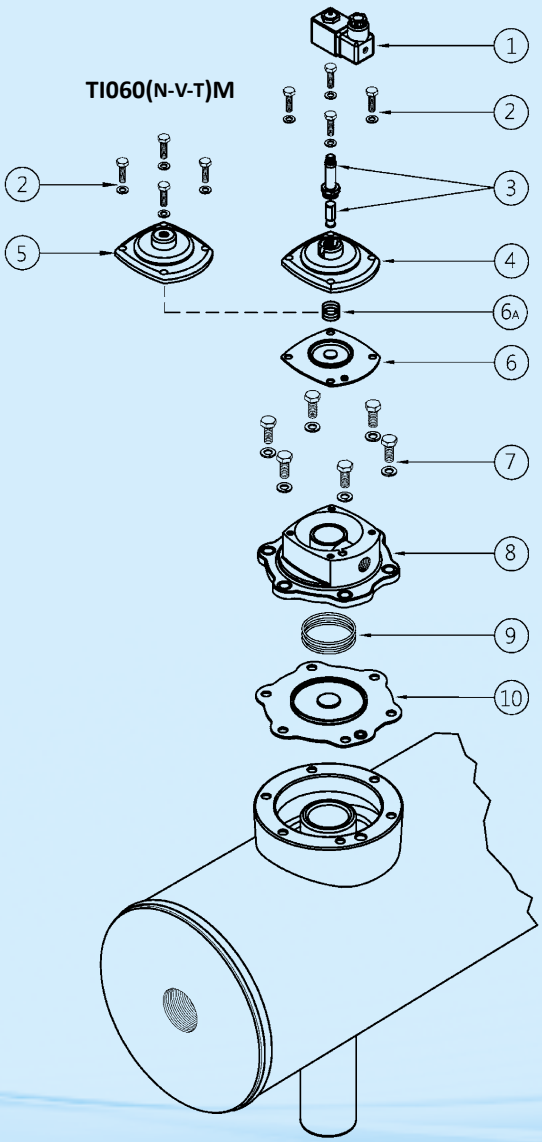

P min = 185 / B min = 120

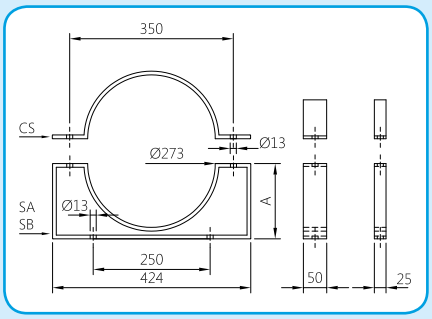
For special versions of P min and B min, please contact our technical department

| DESCRIPTION | | TI060(N-V-T)P / TI060(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251650 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM060N Neoprene<br>TKISM060V Viton<br>TKISM060T Low temperature |

TI060(N-V-T)P

TI060(N-V-T)M

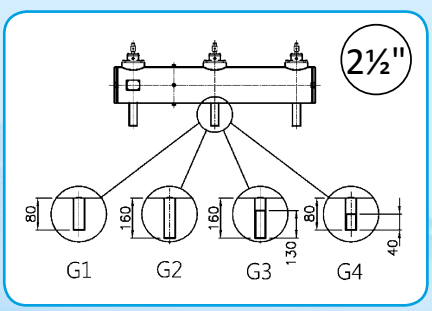



V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

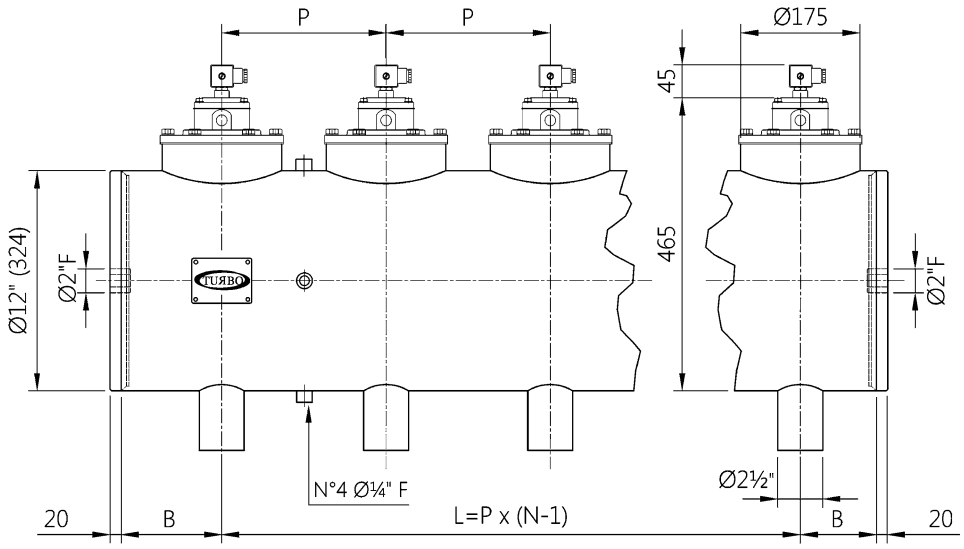
BRACKETS

CS = COLLAR
SA = HIGH SUPPORT A = 273
SB = LOW SUPPORT A = 161




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

# 12" INTEGRAL SERIES WITH 2½" DN VALVES

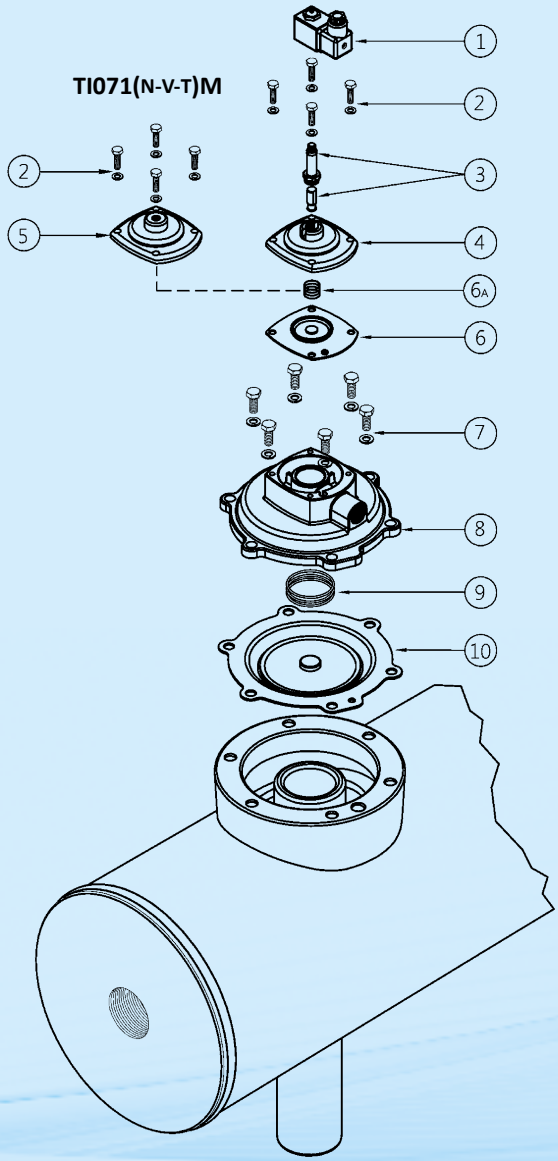



P min = 185 / B min = 120

For special versions of P min and B min, please contact our technical department

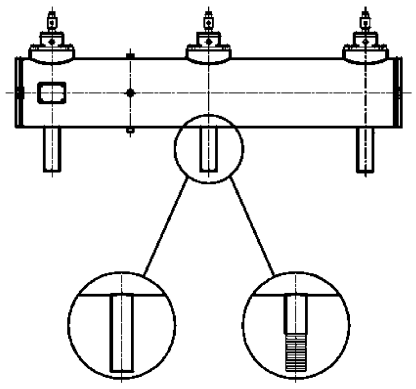
**TI071(N-V-T)P**

**TI071(N-V-T)M**



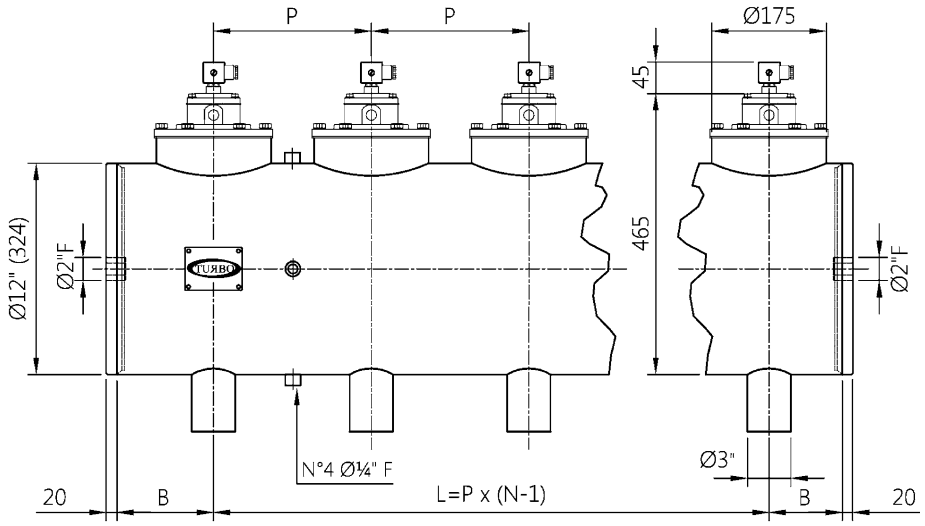

| DESCRIPTION | | TI071(N-V-T)P / TI071(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251850 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM080N Neoprene<br>TKISM080V Viton<br>TKISM080T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac




The customer is responsible for the size and type of outlet pipe

# 12" INTEGRAL SERIES WITH 3" DN VALVES

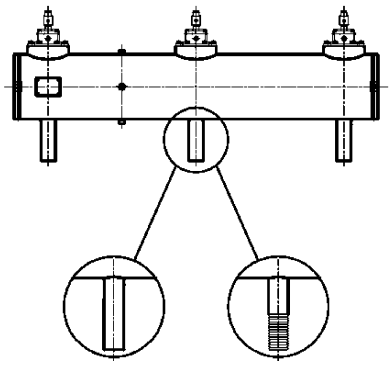



P min = 215 / B min = 125

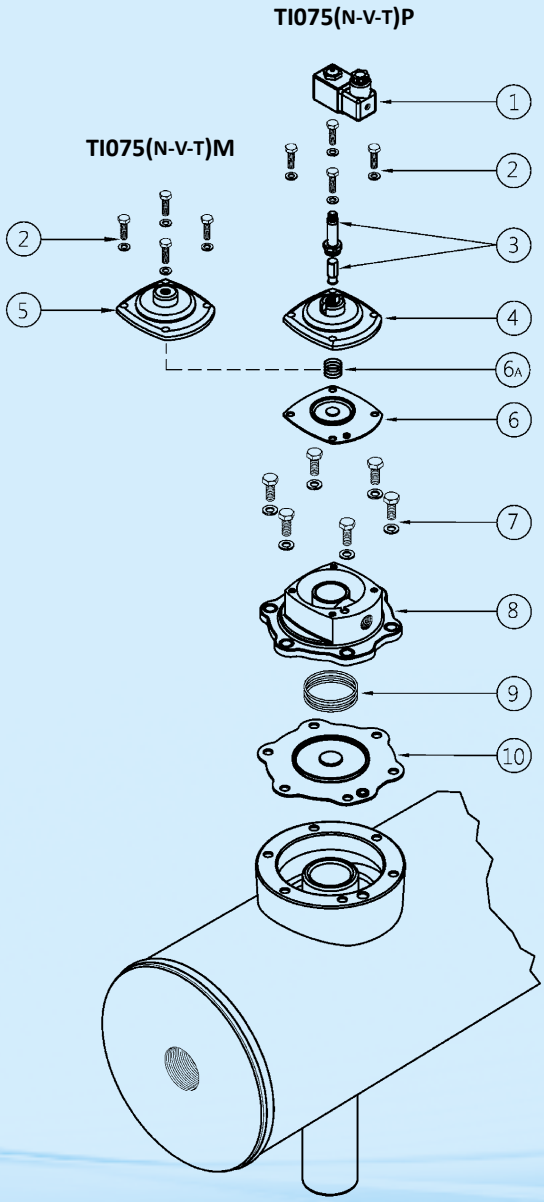
For special versions of P min and B min, please contact our technical department

| DESCRIPTION | | TI075(N-V-T)P / TI075(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251660 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM075N Neoprene<br>TKISM075V Viton<br>TKISM075T Low temperature |

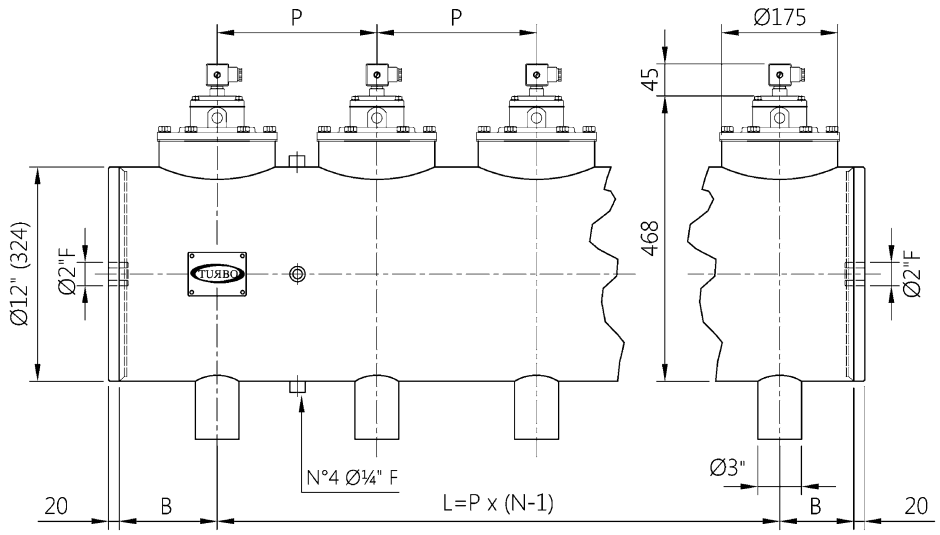
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac




The customer is responsible for the size and type of outlet pipe



# 12" INTEGRAL SERIES WITH 3" DN VALVES

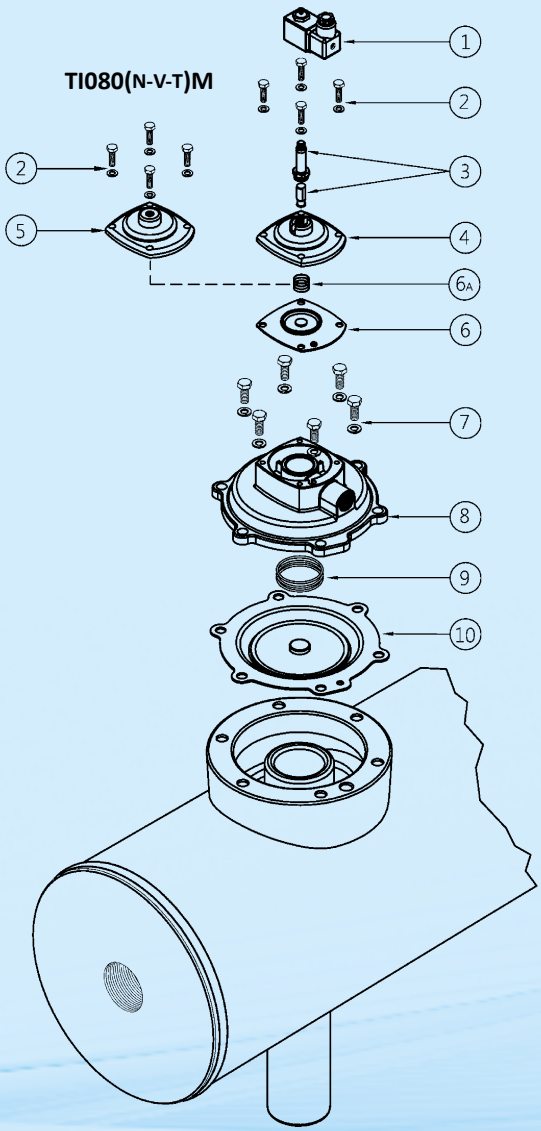



P min = 215 / B min = 125

For special versions of P min and B min, please contact our technical department

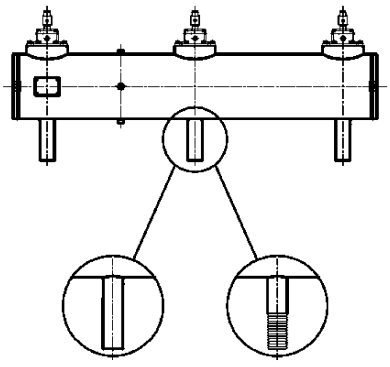
**TI080(N-V-T)P**

**TI080(N-V-T)M**



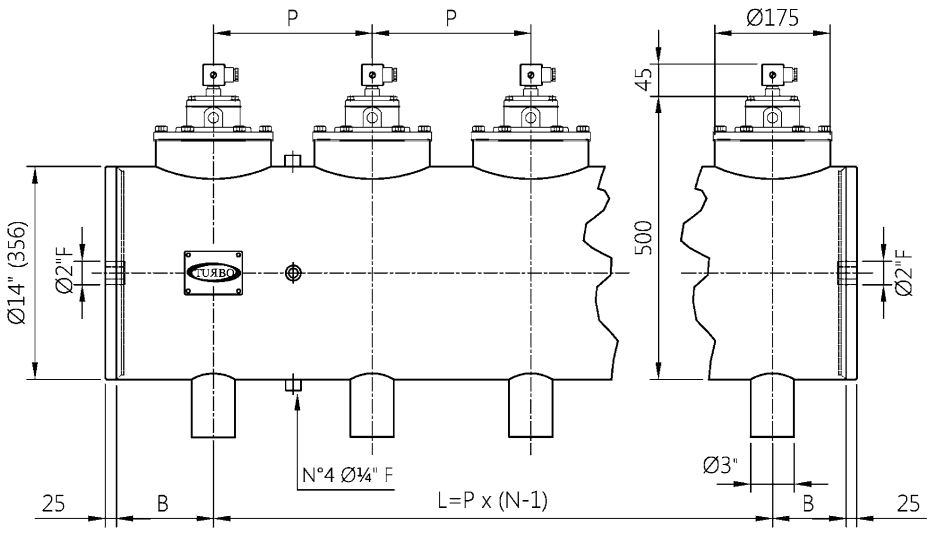

| DESCRIPTION | | TI080(N-V-T)P / TI080(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251850 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM080N Neoprene<br>TKISM080V Viton<br>TKISM080T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac




The customer is responsible for the size and type of outlet pipe

# 14" INTEGRAL SERIES WITH 3" DN VALVES

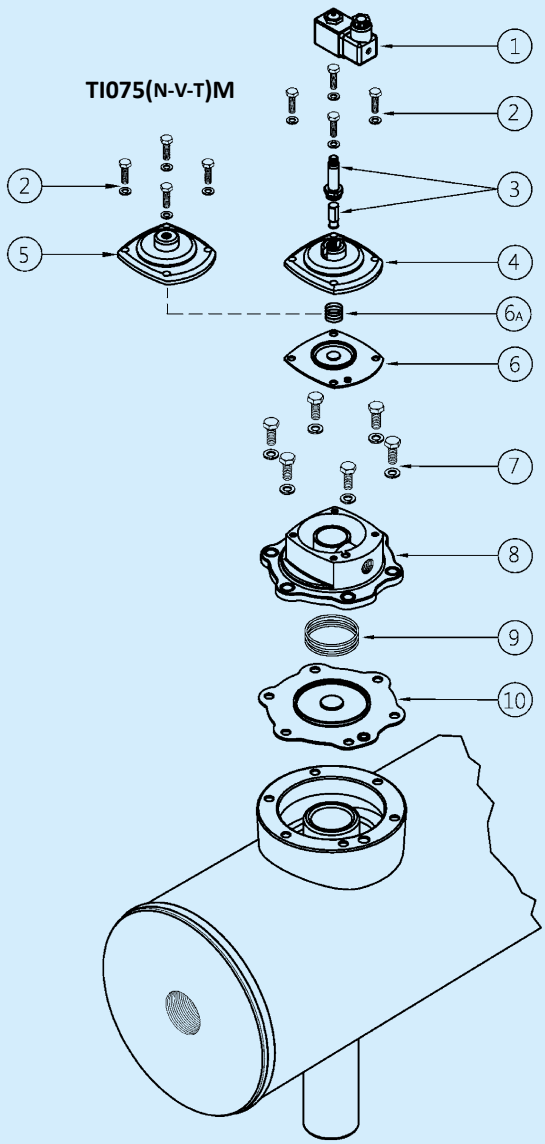



P min = 215 / B min = 125

For special versions of P min and B min, please contact our technical department

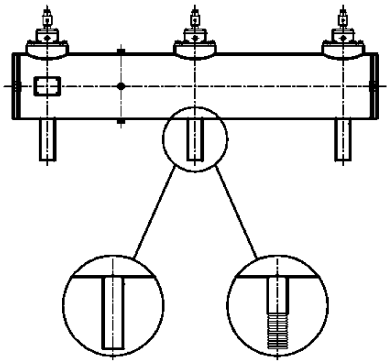
**TI075(N-V-T)P**

**TI075(N-V-T)M**



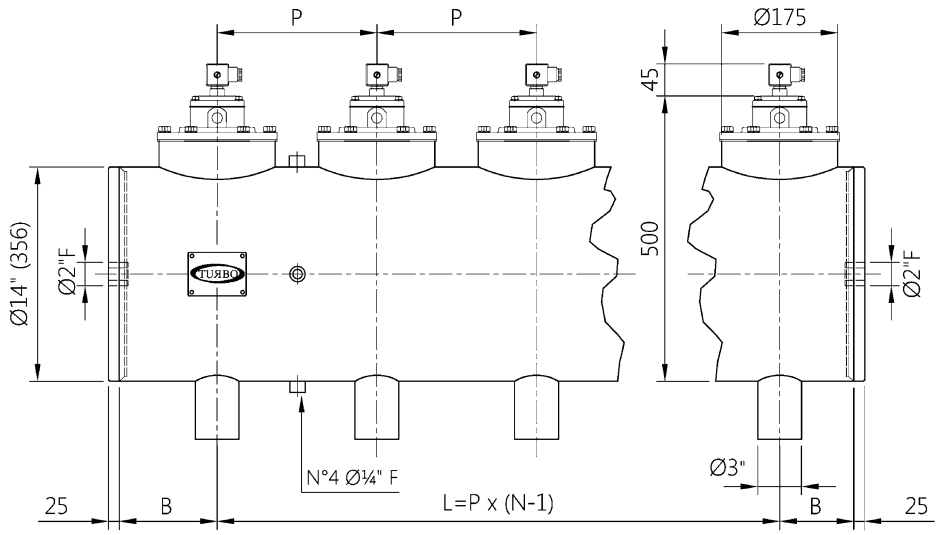

| DESCRIPTION | | TI075(N-V-T)P / TI075(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251660 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM075N Neoprene<br>TKISM075V Viton<br>TKISM075T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac




The customer is responsible for the size and type of outlet pipe

# 14" INTEGRAL SERIES WITH 3" DN VALVES

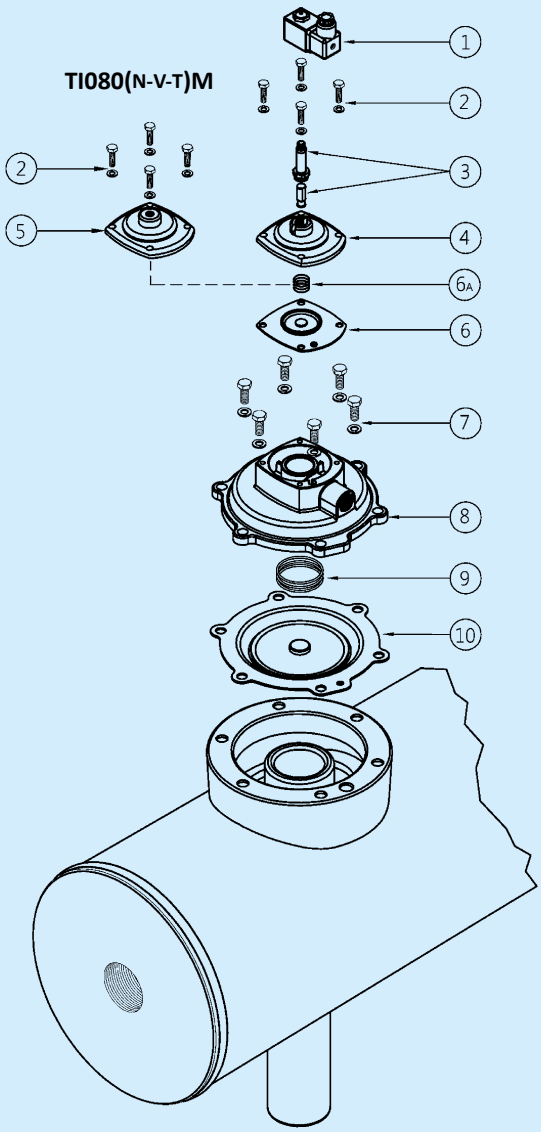



P min = 215 / B min = 125

For special versions of P min and B min, please contact our technical department

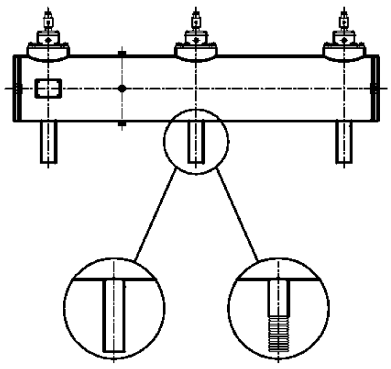
**TI080(N-V-T)P**

**TI080(N-V-T)M**



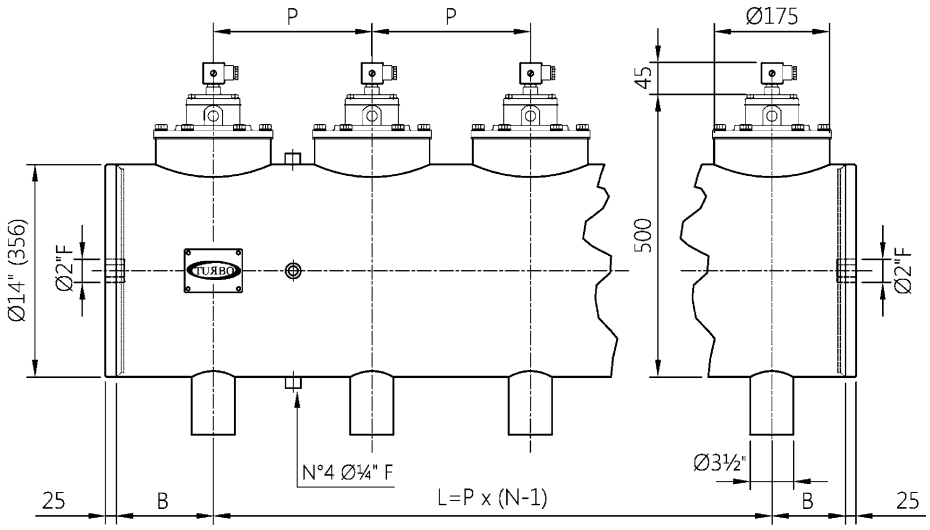

| DESCRIPTION | | TI080(N-V-T)P / TI080(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251850 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM080N Neoprene<br>TKISM080V Viton<br>TKISM080T Low temperature |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac




The customer is responsible for the size and type of outlet pipe

# 14" INTEGRAL SERIES WITH 3½" DN VALVES

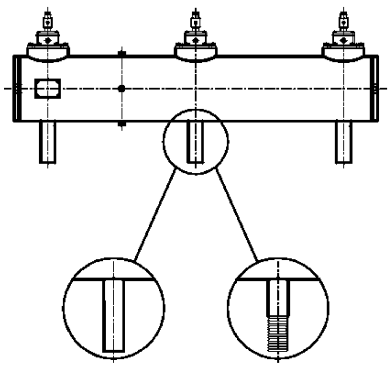



P min = 225 / B min = 125

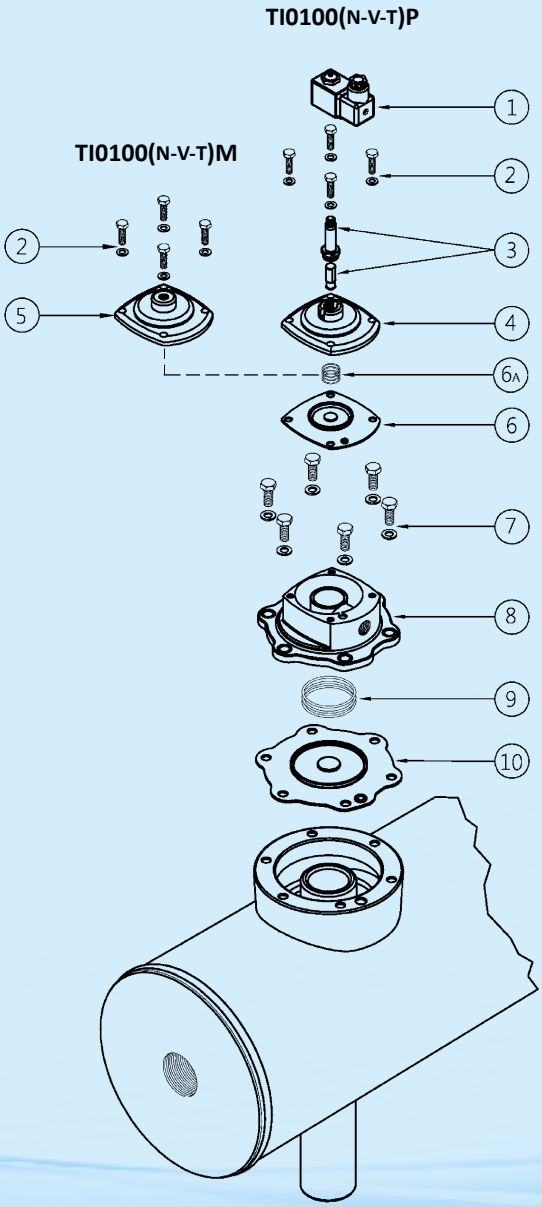
For special versions of P min and B min, please contact our technical department

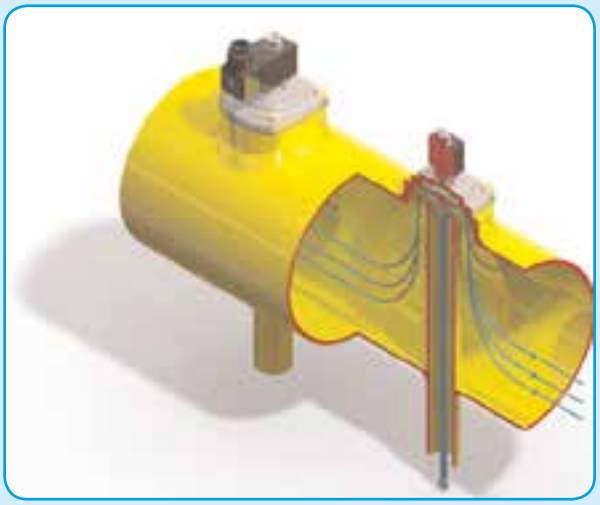
| DESCRIPTION | | TI0100(N-V-T)P / TI0100(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251660 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM0100N Neoprene<br>TKISM0100V Viton<br>TKISM0100T Low temperature |

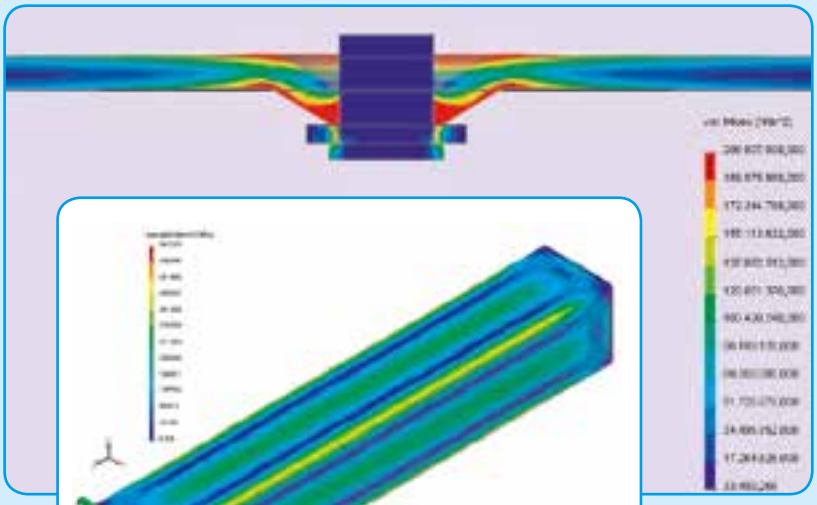
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

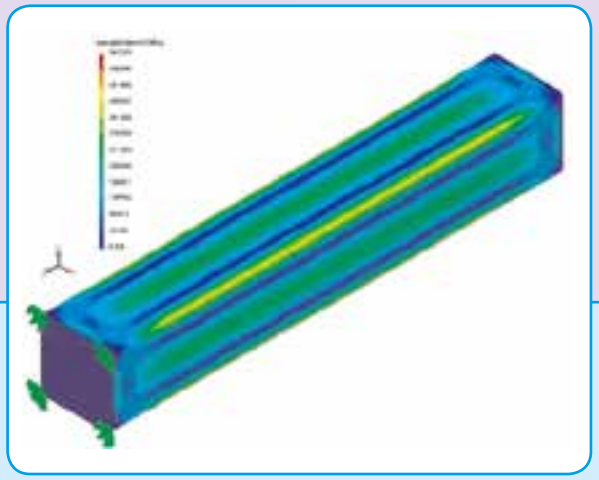


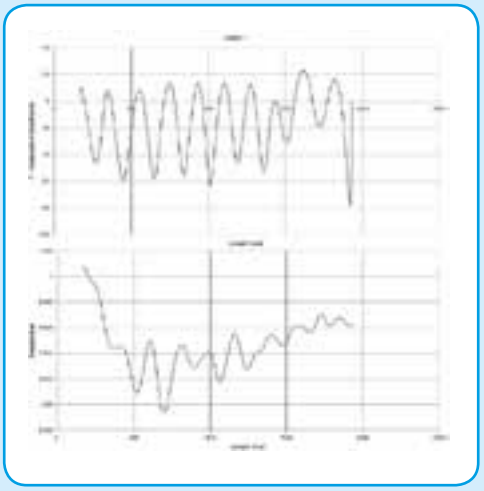

The customer is responsible for the size and type of outlet pipe

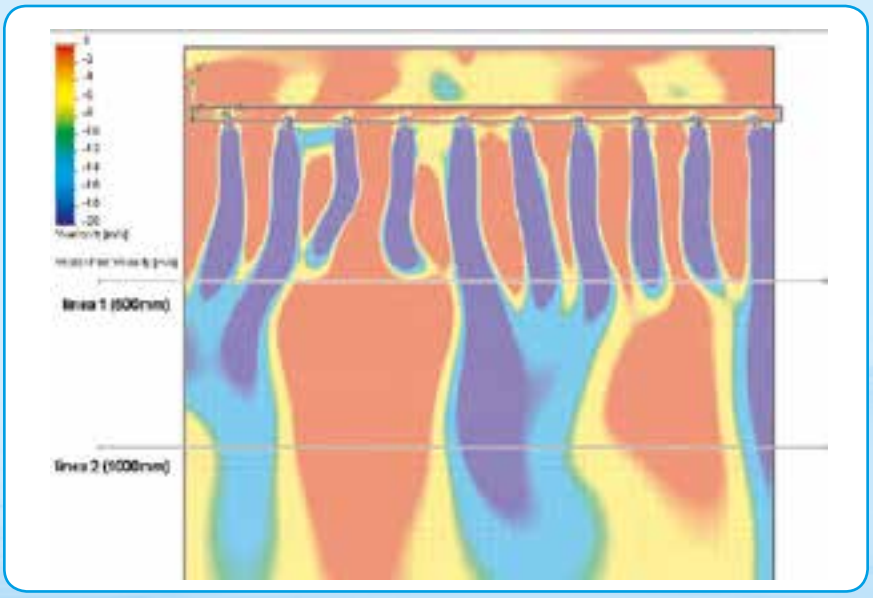




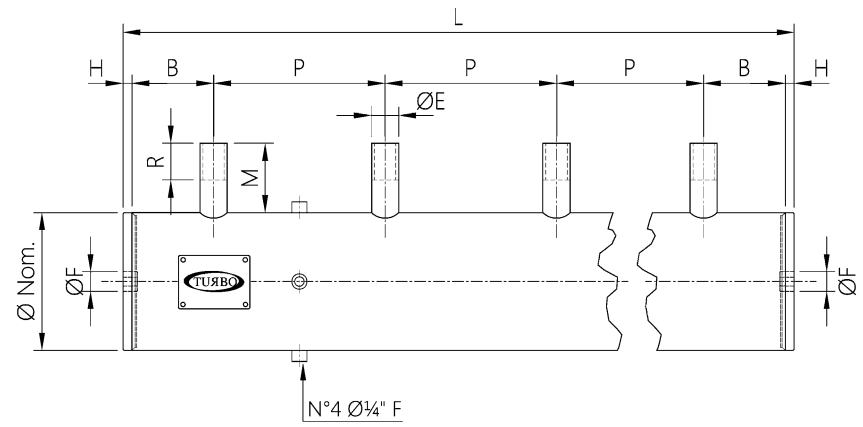


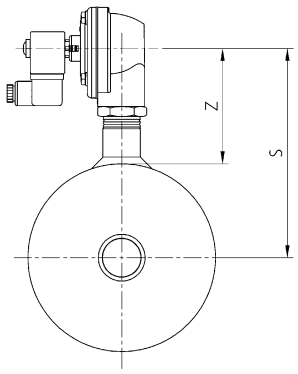






# 5” - 6” - 8” - 10” - 12’’ - 14’’ DN TF SERIES




L = Px(N-1)+2A+2B  P = Distance between the valves  N = Number of valves

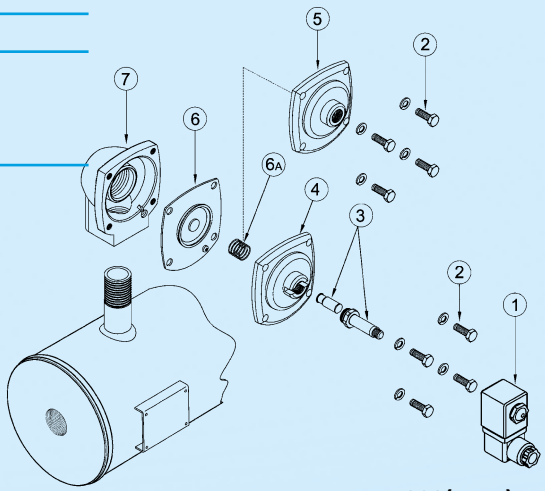
For special versions of P min and B min, please contact our technical department

| Ø (Nom.) | Ø(out) mm | ØE | B(min) | ØF | H | M | R | Z(±) | S(±) | P(min) |
|---|---|---|---|---|---|---|---|---|---|---|
| 5” | 141.3 | ¾ ” | 45 | 1” | 10 | 85 | 40 | 120 | 190 | 85 |
| 5” | 141.3 | 1” | 45 | 1” | 10 | 85 | 40 | 120 | 190 | 85 |
| 6” | 168.3 | ¾ ” | 45 | 1” | 10 | 85 | 40 | 120 | 204 | 85 |
| 6” | 168.3 | 1” | 45 | 1” | 10 | 85 | 40 | 120 | 204 | 85 |
| 6” | 168.3 | 1 ½" | 55 | 1” | 10 | 85 | 40 | 136 | 220 | 150 |
| 8” | 219.1 | 1” | 45 | 1 ½" | 10 | 85 | 40 | 120 | 229 | 85 |
| 8” | 219.1 | 1 ½" | 55 | 1 ½" | 10 | 85 | 40 | 136 | 245 | 150 |
| 8” | 219.1 | 2” | 60 | 1 ½" | 10 | 75 | 40 | 164 | 273 | 210 |
| 10” | 273 | 1 ½" | 55 | 1 ½" | 12 | 85 | 40 | 136 | 272 | 150 |
| 10” | 273 | 2” | 60 | 1 ½" | 12 | 75 | 40 | 164 | 300 | 210 |
| 10” | 273 | 2 ½" | 70 | 1 ½" | 12 | 70 | 45 | 164 | 300 | 210 |
| 12” | 324 | 2” | 60 | 2” | 20 | 75 | 40 | 164 | 325 | 210 |
| 12” | 324 | 2 ½" | 65 | 2” | 20 | 75 | 40 | 164 | 325 | 210 |
| 14” | 356 | 2 ½" | 80 | 2” | 25 | 70 | 45 | 164 | 342 | 210 |
| 14” | 356 | 3” | 110 | 2” | 25 | 100 | 65 | 210 | 390 | 280 |

| | DESCRIPTION | TF020(N-V-T)P / TF020(N-V-T)M | TF025(N-V-T)P / TF025(N-V-T)M |
|---|---|---|---|
| 1 | Coil + Connector | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws + Washers | TKITVTE06X20X4 | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251750 |
| 5 | Remote cover | 1251770 | 1251770 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 | 3241002 |
| 7 | Valve body | 1251120 | 1251190 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

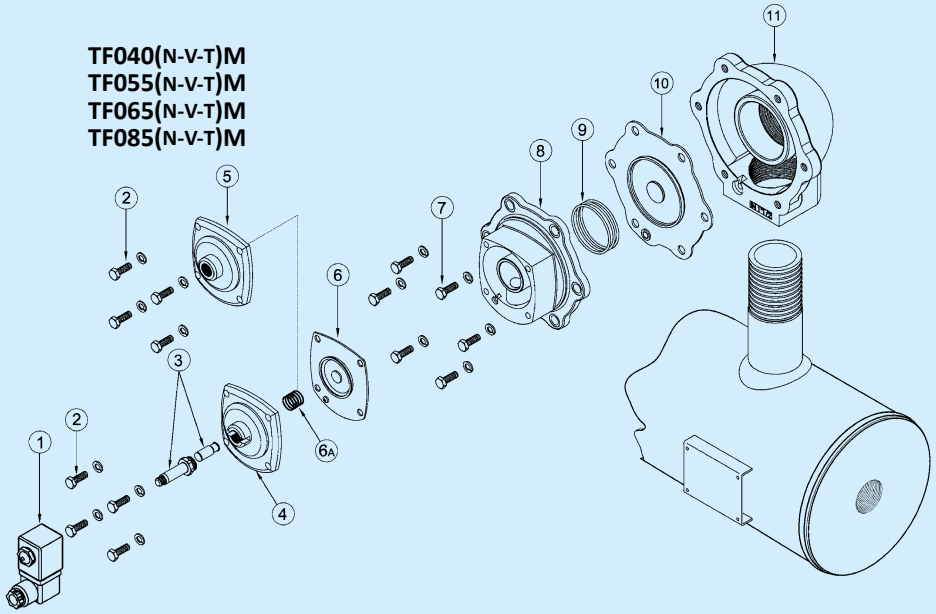
**TF020(N-V-T)M**
**TF025(N-V-T)M**




**TF020(N-V-T)P**
**TF025(N-V-T)P**

# 5” - 6” - 8” - 10” - 12’’ - 14’’ DN TF SERIES

**TF040(N-V-T)M**
**TF055(N-V-T)M**
**TF065(N-V-T)M**
**TF085(N-V-T)M**



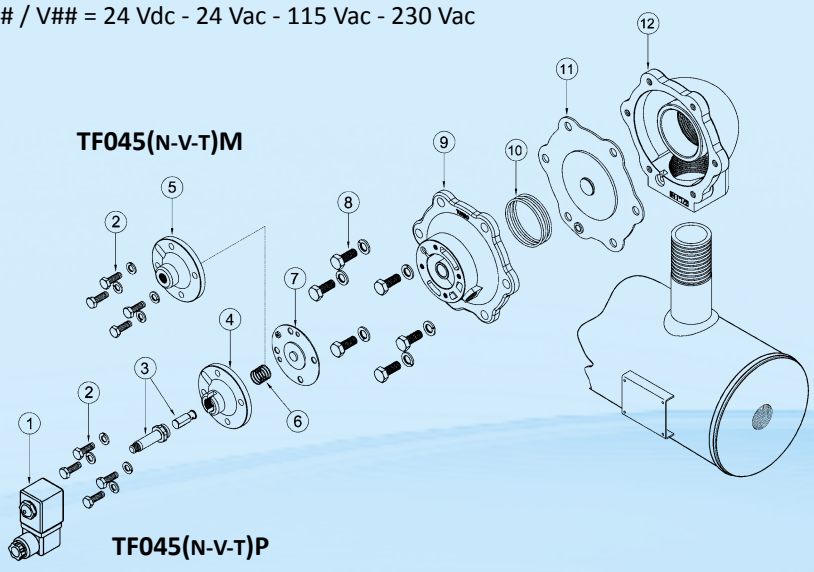

**TF040(N-V-T)P**
**TF055(N-V-T)P**
**TF065(N-V-T)P**
**TF085(N-V-T)P**

| DESCRIPTION | | TF040(N-V-T)P<br>TF040(N-V-T)M | TF055(N-V-T)P<br>TF055(N-V-T)M | TF065(N-V-T)P<br>TF065(N-V-T)M | TF085(N-V-T)P<br>TF085(N-V-T)M |
|---|---|---|---|---|---|
| 1 | Coil + Connector | BH10 V## / V## | BH10 V## / V## | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws + Washers | TKITVTE06X20X4 | TKITVTE06X20X4 | TKITVTE06X20X4 | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 | 1331080 | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251750 | 1251750 | 1251750 |
| 5 | Remote cover | 1251770 | 1251770 | 1251770 | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 | 3241002 | 3241002 | 3241002 |
| 7 | Screws + Washers | TKITVTE08X20X6 | TKITVTE10X25X6 | TKITVTE10X25X6 | TKITVTE10X30X8 |
| 8 | Cover | 1251620 | 1251660 | 1251660 | 1251680 |
| 9 | Diaphragm spring | 3241024 | 3241024 | 3241024 | 3241024 |
| 10 | Primary diaphragm (N-V-T) | TKISM040N Neoprene<br>TKISM040V Viton<br>TKISM040T Low temperature | TKISM055N Neoprene<br>TKISM055V Viton<br>TKISM055T Low temperature | TKISM065N Neoprene<br>TKISM065V Viton<br>TKISM065T Low temperature | TKISM085N Neoprene<br>TKISM085V Viton<br>TKISM085T Low temperature |
| 11 | Valve body | 1251400 | 1251470 | 1251500 | 1251570 |

| DESCRIPTION | | TF045(N-V-T)P / TF045(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251715 |
| 5 | Remote cover | 1251745 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE08X20X6 |
| 9 | Cover | 1251840 |
| 10 | Diaphragm spring | 3241024 |
| 11 | Primary Diaphragm (N-V-T) | TKISM045N Neoprene<br>TKISM045V Viton<br>TKISM045T Low temperature |
| 12 | Valve body | 1251400 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

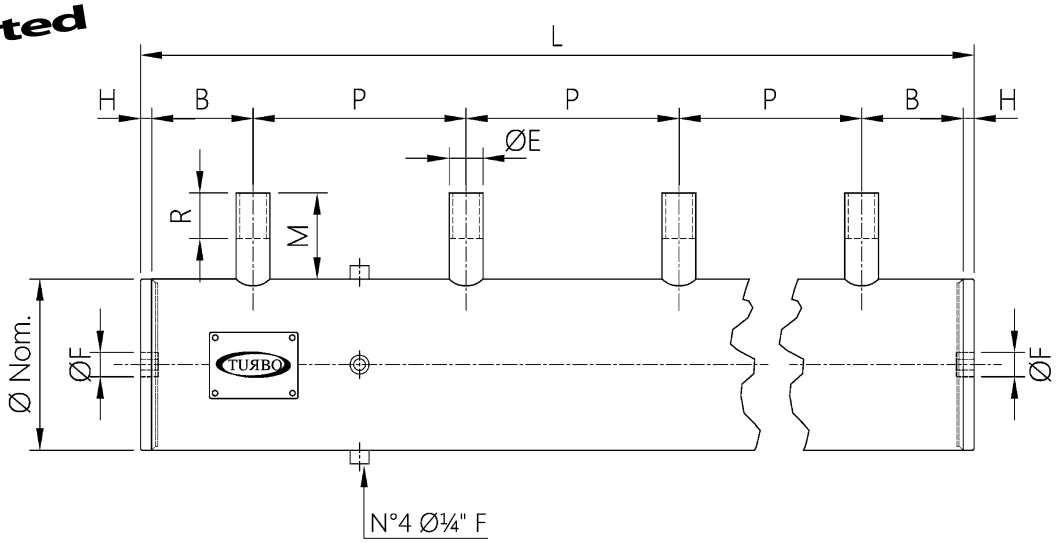
**TF045(N-V-T)M**




**TF045(N-V-T)P**

TFP version with built-in pilot / TFM version with remote pilot

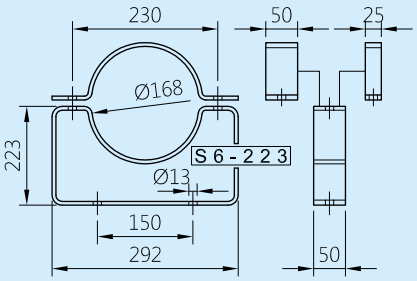
# 6”- 8” TL SERIES

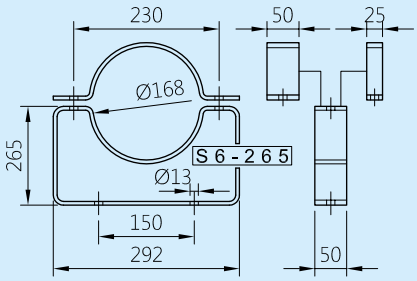


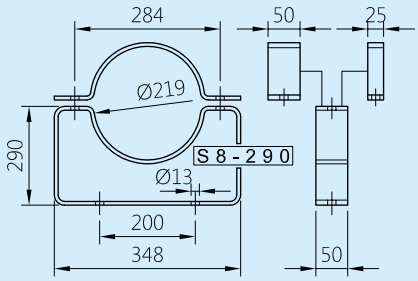

L = Px(N-1)+2A+2B  P = Distance between the valves  N = Number of valves

For special versions of P min and B min, please contact our technical department

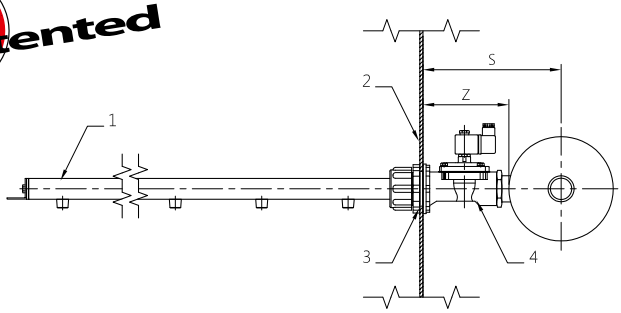
| Ø | Ø(out) mm | ØE | A | B(min) | ØF | H | M | R | Z(±) | S(±) | P(min) | Brackets |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6” | 168.3 | 1 ¼" | 50 | 50 | 1” | 10 | 45 | 30 | 139 | 223 | 85 | S6-223 |
| 6” | 168.3 | 2” | 50 | 60 | 1” | 10 | 45 | 30 | 180 | 265 | 120 | S6-265 |
| 8” | 219.1 | 2” | 70 | 60 | 1 ½" | 10 | 45 | 30 | 180 | 290 | 120 | S8-290 |



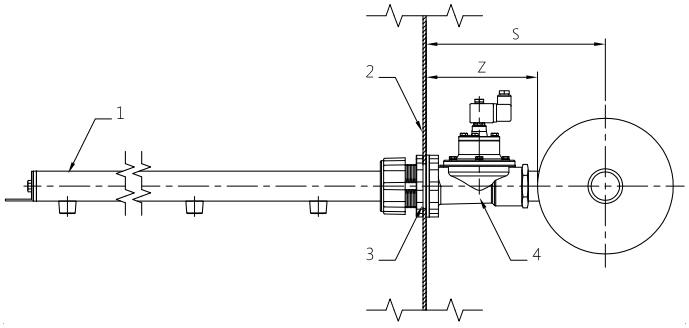




1. 1" AIR CANNON
2. FILTER WALL
3. ASSEMBLY HOLE MIN ø 56 mm
4. 1" STRAIGHT THROUGH VALVE

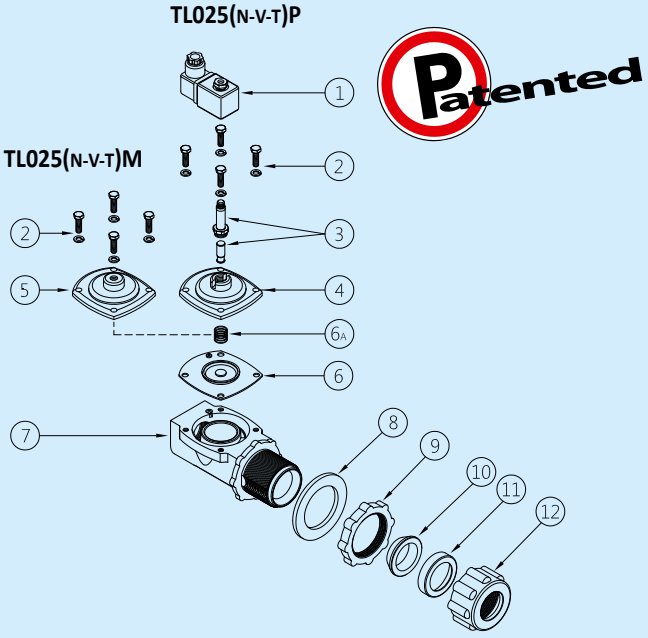



1. 1 ½" AIR CANNON
2. FILTER WALL
3. ASSEMBLY HOLE MIN ø 72 mm
4. 1½" STRAIGHT THROUGH VALVE



# TL SERIES / PART LIST

TL025(N-V-T)P

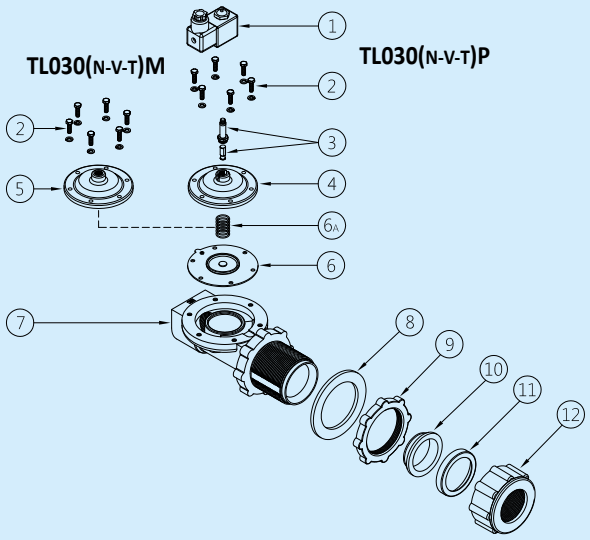



| DESCRIPTION | | TL025(N-V-T)P / TL025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 7 | Valve body | 1251250 |
| 8 | Seal | 3141702 |
| 9 | Lock nut | 3181036 |
| 10 | Conical seal | 3301013 |
| 11 | Retaining ring | 1321010 |
| 12 | Hose Clamp High Nut | 1281045 |

| DESCRIPTION | | TL030(N-V-T)P / TL030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6a | Diaphragm spring | 3241018 |
| 6 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |
| 7 | Valve body | 1251330 |
| 8 | Seal | 3141706 |
| 9 | Lock nut | 3181032 |
| 10 | Conical seal | 3301017 |
| 11 | Retaining ring | 1321012 |
| 12 | Hose Clamp High Nut | 1281050 |

TL030(N-V-T)M

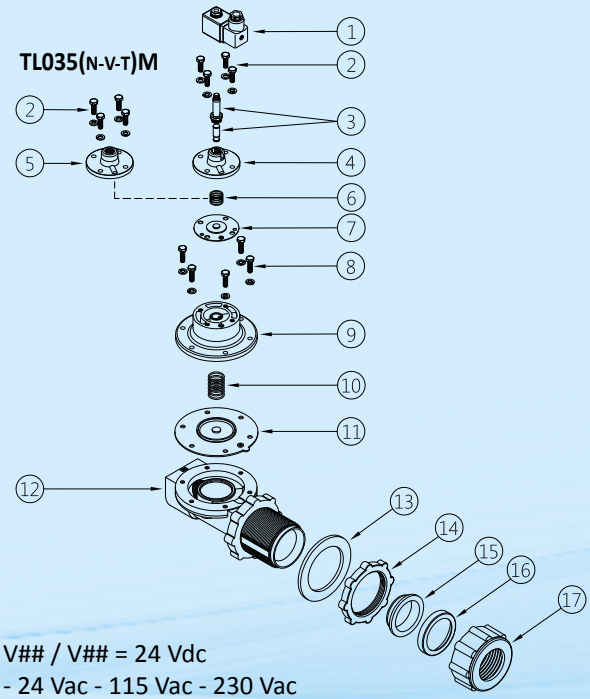
TL030(N-V-T)P




| DESCRIPTION | | TL035(N-V-T)P / TL035(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary Diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |
| 12 | Valve body | 1251330 |
| 13 | Seal | 3141706 |
| 14 | Lock nut | 3181032 |
| 15 | Conical seal | 3301017 |
| 16 | Retaining ring | 1321012 |
| 17 | Hose clamp high nut | 1281050 |

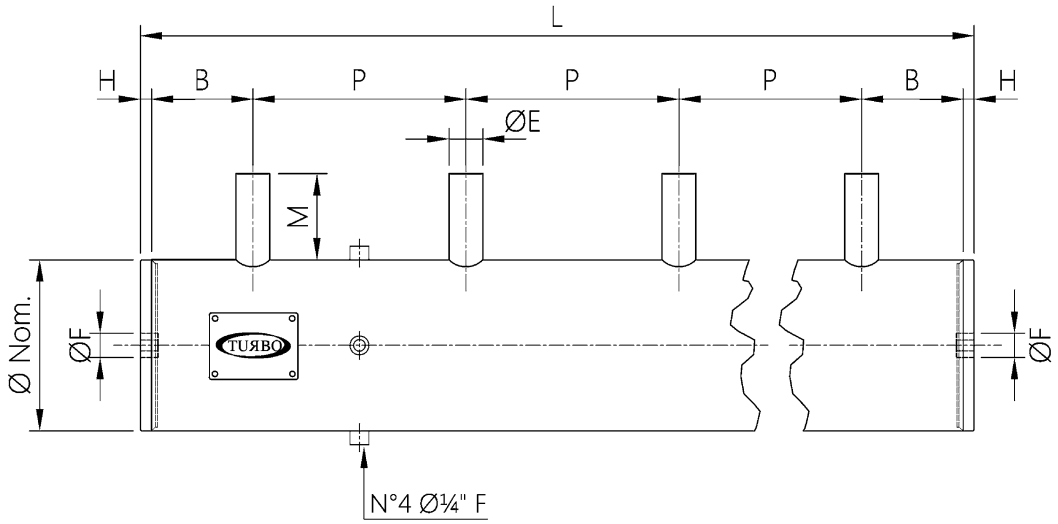
TL035(N-V-T)P

TL035(N-V-T)M




V## / V## = 24 Vdc
- 24 Vac - 115 Vac - 230 Vac

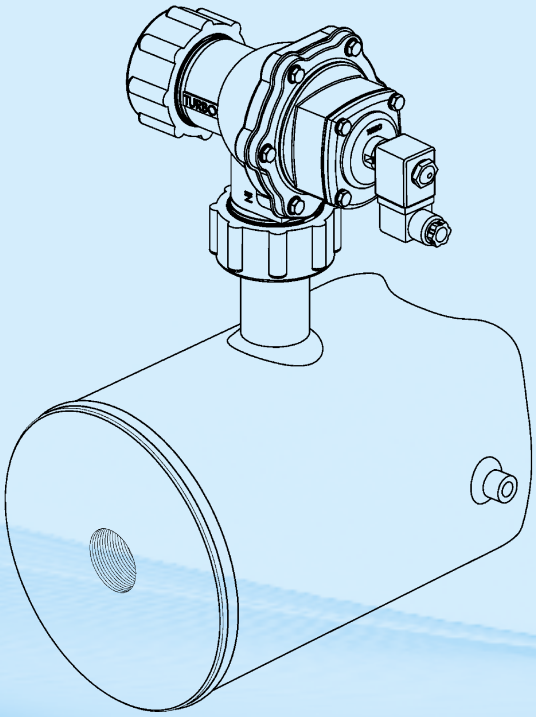
# 5” - 6” - 8’’ - 10’’ DN TD SERIES

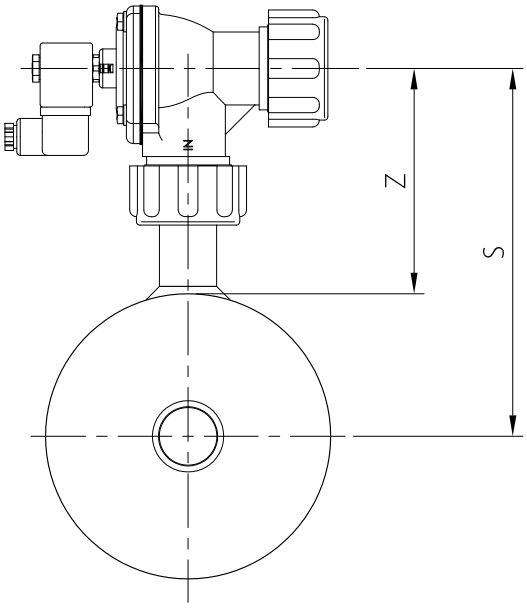



L = Px(N-1)+2A+2B  P = Distance between the valves  N = Number of valves

For special versions of P min and B min, please contact our technical department

| Ø (NOM) | Ø(out) mm | ØE | A | B(min) | ØF | H | M | Z(±) | S(±) | P(min) |
|---|---|---|---|---|---|---|---|---|---|---|
| 5” | 141.3 | ¾” | 50 | 45 | 1” | 10 | 85 | 130 | 200 | 85 |
| 5” | 141.3 | 1” | 50 | 45 | 1” | 10 | 85 | 130 | 200 | 85 |
| 6” | 168.3 | ¾” | 50 | 45 | 1” | 10 | 85 | 130 | 215 | 85 |
| 6” | 168.3 | 1” | 50 | 45 | 1” | 10 | 85 | 130 | 215 | 85 |
| 6” | 168.3 | 1 ½" | 50 | 55 | 1” | 10 | 85 | 138 | 223 | 150 |
| 8” | 219.1 | 1” | 70 | 45 | 1 ½" | 10 | 85 | 130 | 240 | 85 |
| 8” | 219.1 | 1 ½" | 70 | 55 | 1 ½" | 10 | 85 | 138 | 248 | 150 |
| 10” | 273 | 1 ½" | 90 | 55 | 1 ½" | 12 | 85 | 138 | 275 | 150 |

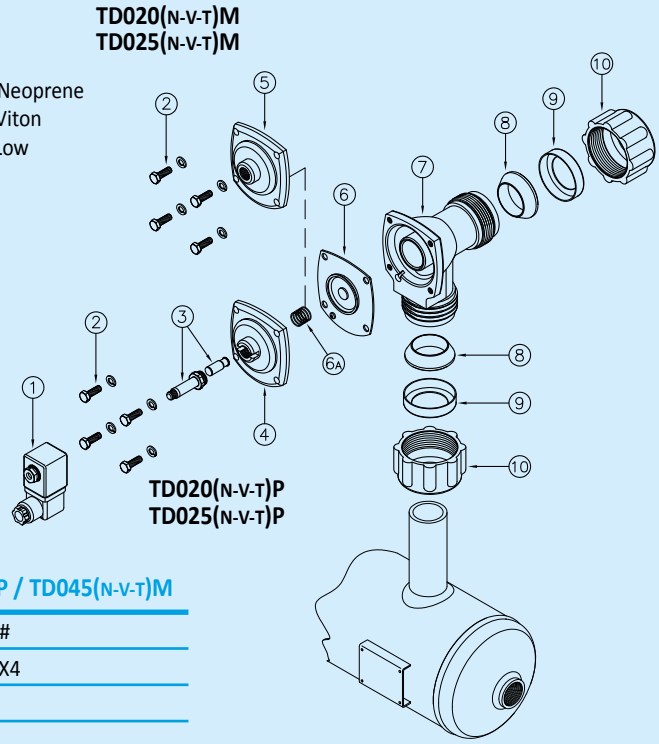




# 5” - 6” - 8’’ - 10’’ DN TD SERIES

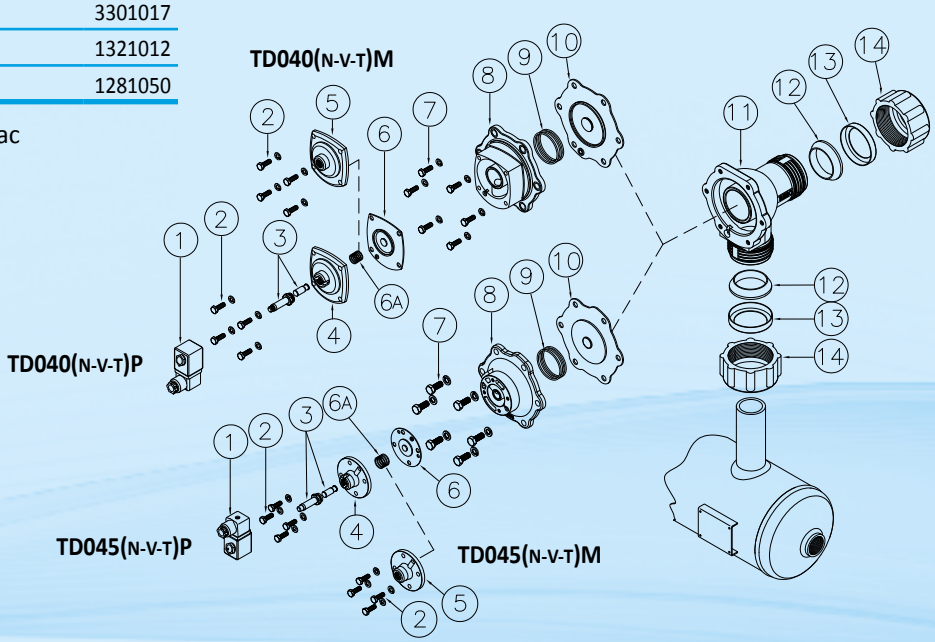
| | DESCRIPTION | TD020(N-V-T)P / TD020(N-V-T)M | TD025(N-V-T)P / TD025(N-V-T)M |
|---|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251750 |
| 5 | Remote cover | 1251770 | 1251770 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 | 3241002 |
| 7 | Valve body | 1251110 | 1251310 |
| 8 | Conical seal | 3301010 | 3301013 |
| 9 | Retaining ring | 1321006 | 1321010 |
| 10 | Hose clamp high nut | 1281040 | 1281045 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

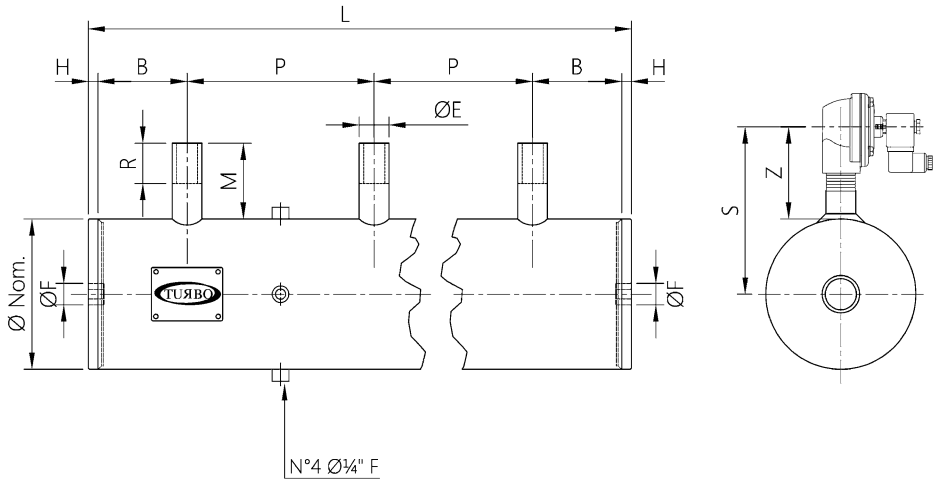



| | DESCRIPTION | TD040(N-V-T)P / TL040(N-V-T)M | TD045(N-V-T)P / TD045(N-V-T)M |
|---|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251715 |
| 5 | Remote cover | 1251770 | 1251745 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 6a | Diaphragm spring | 3241002 | 3241006 |
| 7 | Screws - Washers | TKITVTE08X20X6 | TKITVTE08X20X6 |
| 8 | Cover | 1251620 | 1251620 |
| 9 | Diaphragm spring | 3241002 | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM040N Neoprene<br>TKISM040V Viton<br>TKISM040T Low temperature | TKISM045N Neoprene<br>TKISM045V Viton<br>TKISM045T Low temperature |
| 11 | Valve body | 1251440 | 1251440 |
| 12 | Conical seal | 3301017 | 3301017 |
| 13 | Retaining ring | 1321012 | 1321012 |
| 14 | Hose clamp high nut | 1281050 | 1281050 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac



# XTF SERIES DN 5” - 6” - 8” - 10” - WITH THREADED STUMPS



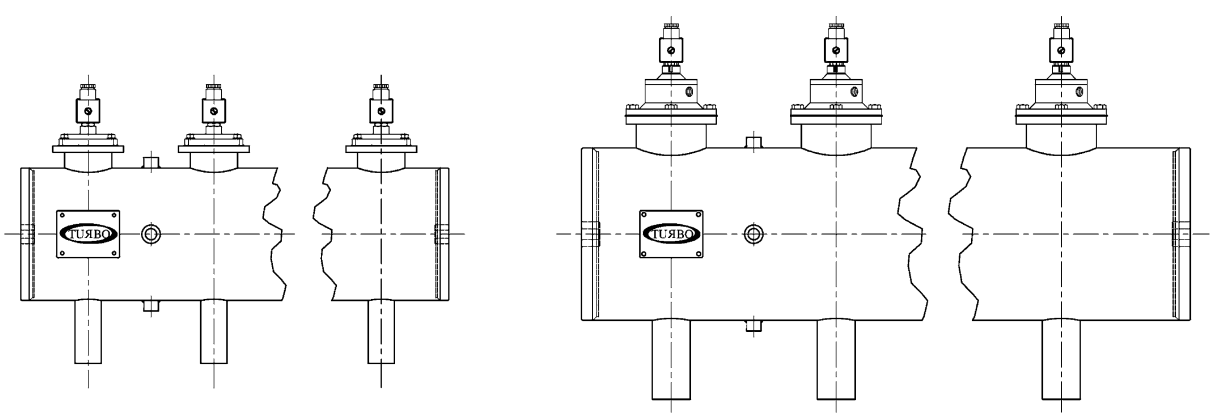

L = Px(N-1)+2A+2B  P = Distance between valves  N = Number of valves

For special versions of P min and B min, please contact our technical department

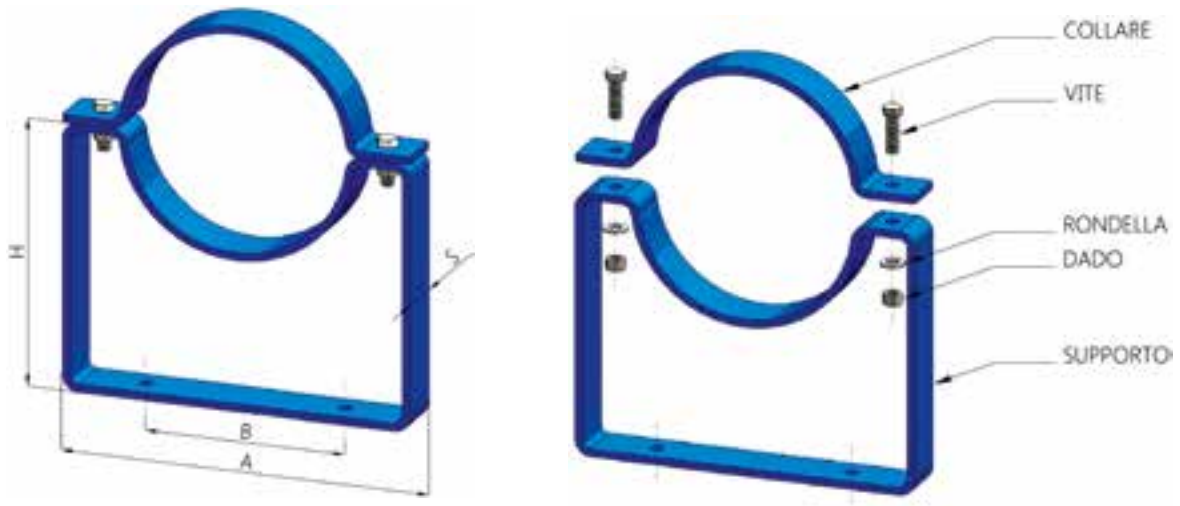
| Ø (NOM) | Ø(out) mm | ØE | B(min) | ØF | H | M | R | Z(±) | S(±) | P(min) |
|---|---|---|---|---|---|---|---|---|---|---|
| 5” | 140 | ¾” | 40 | 1” | 10 | 85 | 40 | 120 | 190 | 85 |
| 5” | 140 | 1” | 45 | 1” | 10 | 85 | 40 | 120 | 190 | 85 |
| 5” | 140 | 1 ½" | 50 | 1” | 10 | 85 | 40 | 120 | 205 | 150 |
| 6” | 168.3 | ¾” | 40 | 1” | 10 | 85 | 40 | 120 | 204 | 85 |
| 6” | 168.3 | 1” | 45 | 1” | 10 | 85 | 40 | 120 | 204 | 85 |
| 6” | 168.3 | 1 ½" | 55 | 1” | 10 | 85 | 40 | 136 | 220 | 150 |
| 6” | 168.3 | 2” | 60 | 1” | 10 | 75 | 40 | 164 | 248 | 210 |
| 8” | 219.1 | 1” | 45 | 1 ½" | 10 | 85 | 40 | 120 | 229 | 85 |
| 8” | 219.1 | 1 ½" | 55 | 1 ½" | 10 | 85 | 40 | 136 | 245 | 150 |
| 8” | 219.1 | 2” | 60 | 1 ½" | 10 | 75 | 40 | 164 | 273 | 210 |
| 8” | 219.1 | 2 ½" | 65 | 1 ½" | 10 | 85 | 40 | 164 | 273 | 210 |
| 10” | 273 | 1 ½" | 55 | 1 ½" | 12 | 85 | 40 | 136 | 272 | 150 |
| 10” | 273 | 2” | 60 | 1 ½" | 12 | 75 | 40 | 164 | 300 | 210 |
| 10” | 273 | 2 ½" | 70 | 1 ½" | 12 | 70 | 45 | 164 | 300 | 210 |

Operating temperature: -50°C/+200°C

# 5” - 6” - 8” - 10” DN INX INTEGRAL SERIES - GLOBAL IMMERSION HEADER TANKS



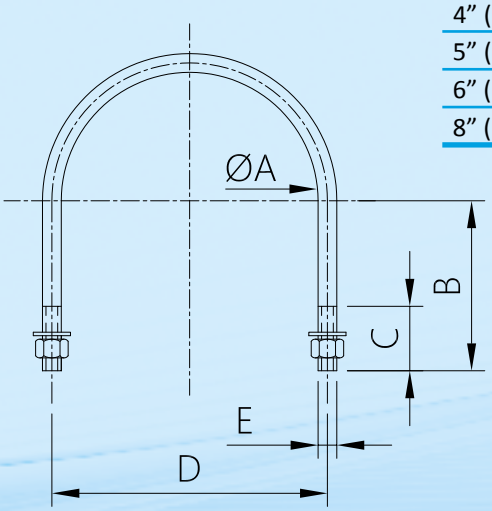

Please contact our technical department for the dimensions
Operating temperature: -50°C/+200°C




| TANK DIAMETER | BRACKET MODEL | BRACKET CODE | A (mm) | B (mm) | H mm | S (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|
| 5" (Ø 141.3) | Low bracket | SB5 | 264 | 150 | 95 | 50 | 2.6 |
| | Medium bracket | SM5 | 264 | 150 | 160 | 50 | 3.0 |
| | High bracket | SA5 | 264 | 150 | 180 | 50 | 3.1 |
| 6" (Ø 168.3) | Low bracket | SB6 | 292 | 150 | 109 | 50 | 2.8 |
| | Medium bracket | SM6 | 292 | 150 | 170 | 50 | 3.3 |
| | High bracket | SA6 | 292 | 150 | 200 | 50 | 3.5 |
| | TL series bracket | S6 - 223 | 292 | 150 | 223 | 50 | 3.7 |
| | TL series bracket | S6 - 265 | 292 | 150 | 265 | 50 | 4.0 |
| 8" (Ø 219.1) | Low bracket | SB8 | 348 | 200 | 134 | 50 | 4.6 |
| | Medium bracket | SM8 | 348 | 200 | 210 | 50 | 5.0 |
| | High bracket | SA8 | 348 | 200 | 270 | 50 | 5.4 |
| | TL series bracket | S8 - 290 | 348 | 200 | 290 | 50 | 5.5 |
| 10" (Ø 273) | Low bracket | SB10 | 424 | 250 | 161 | 50 | 5.6 |
| | High bracket | SA10 | 424 | 250 | 273 | 50 | 6.5 |

For special brackets, please contact our technical department

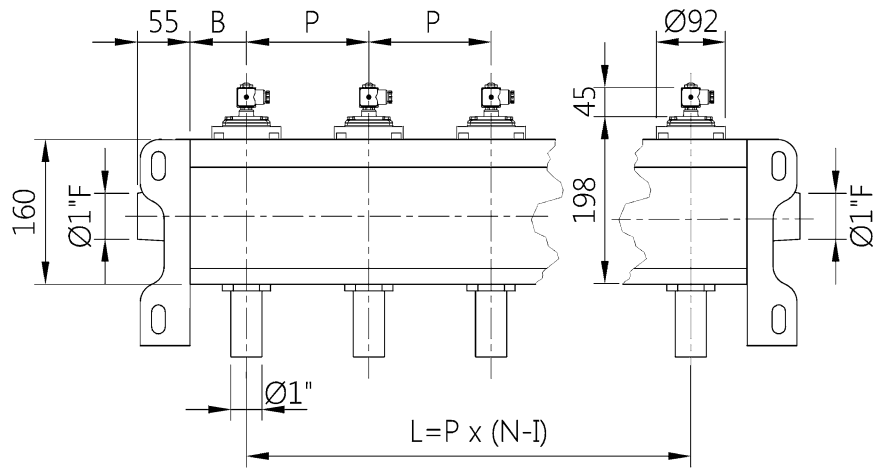
## U-BOLTS




| TANK DIAMETER | ØA (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|---|---|---|---|---|---|
| 4" (Ø 114.3) | 115 | 87.5 | 45 | 124 | M10 |
| 5" (Ø 141.3) | 155 | 92.5 | 45 | 164 | M10 |
| 6" (Ø 168.3) | 175 | 116.5 | 45 | 185 | M16 |
| 8" (Ø 219.1) | 225 | 141.5 | 45 | 235 | M16 |

U-Bolts are available in galvanised steel or stainless steel, on request

# 6” ALUTANK SERIES WITH 1” DN VALVES




| | | |
|---|---|---|
| 6 bar PRESSURE | B min.= 51 | P min.= 92 |
| 8 bar PRESSURE | B min.= 61 | P min.= 121 |

For special versions of P min and B min, please contact our technical department

## TECHNICAL FEATURES

Tank body
Extruded anodised aluminium

Ends
Die-cast aluminium

Air cannons
Galvanised steel

O-Ring
NBR

Operating temperature
-20°C +80°C

Operating pressure
0.5 ÷ 6 bar - 0.5 ÷ 8 bar

Low temperature version
- 40°C +80°C

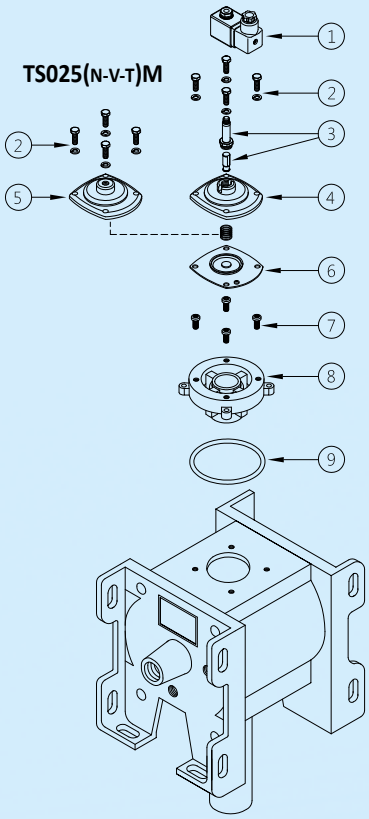
(Aluminium air cannons)

| DESCRIPTION | | TS025(N-V-T)P / TS025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE06X16X4 |
| 8 | Valve body | 1251300 |
| 9 | O-R gasket | 3301285 |

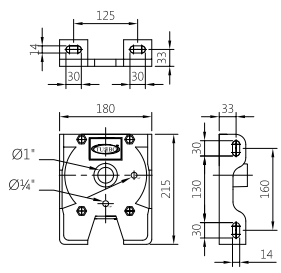
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

TS025(N-V-T)P

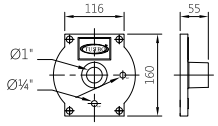
TS025(N-V-T)M



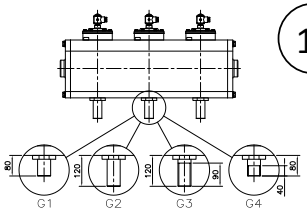

DETAIL OF BOTTOM DIMENSIONS AND FIXING




STANDARD

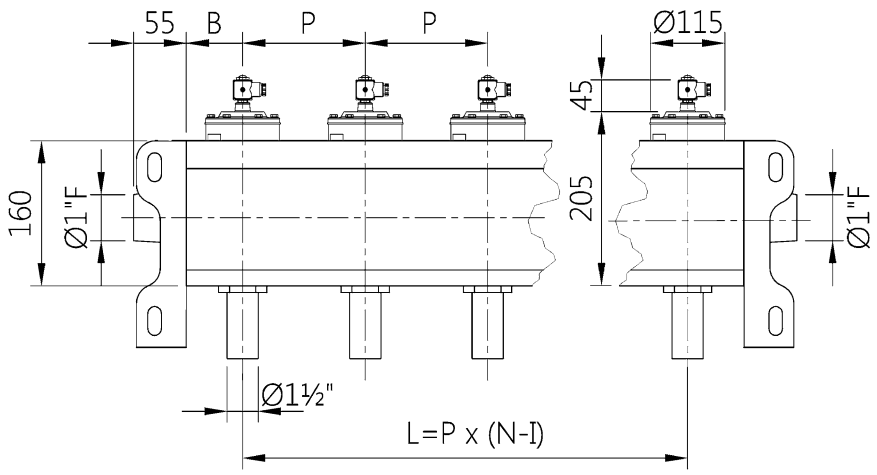



WITHOUT BRACKETS




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

# 6" ALUTANK SERIES WITH 1½" DN VALVES




6 bar PRESSURE — B min.= 58 — P min.= 115
8 bar PRESSURE — B min.= 73 — P min.= 145

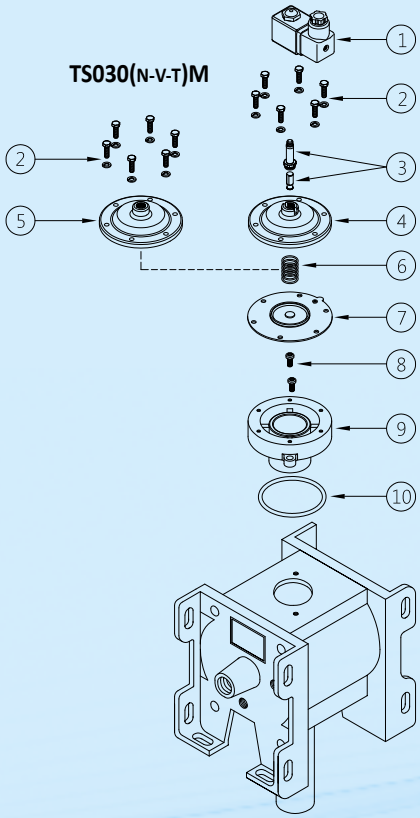
For special versions of P min and B min, please contact our technical department

## TECHNICAL FEATURES

| |
|---|
| Tank body<br>Extruded anodised aluminium |
| Ends<br>Die-cast aluminium |
| Air cannons<br>Galvanised steel |
| O-Ring<br>NBR |
| Operating temperature<br>-20°C +80°C |
| Operating pressure<br>0.5 ÷ 6 bar - 0.5 ÷ 8 bar |
| Low temperature version<br>- 40°C +80°C<br><br>(Aluminium air cannons) |

**TS030(N-V-T)P**

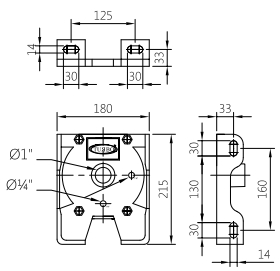
**TS030(N-V-T)M**



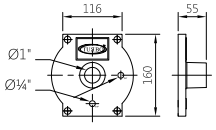

| DESCRIPTION | | TS030(N-V-T)P / TS030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6 | Diaphragm spring | 3241018 |
| 7 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X2 |
| 9 | Valve body | 1251350 |
| 10 | O-R gasket | 3301276 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

DETAIL OF BOTTOM DIMENSIONS AND FIXING

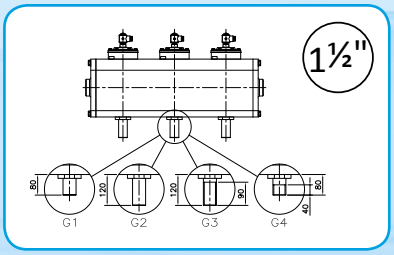



STANDARD

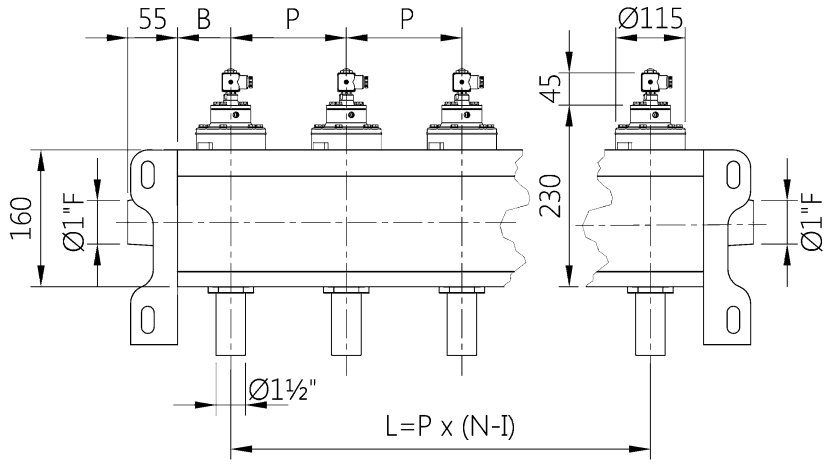



WITHOUT BRACKETS

SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4



# 6" ALUTANK SERIES WITH 1½" DN VALVES




| | | |
|---|---|---|
| 6 bar PRESSURE | B min.= 58 | P min.= 115 |
| 8 bar PRESSURE | B min.= 73 | P min.= 145 |

## TECHNICAL FEATURES

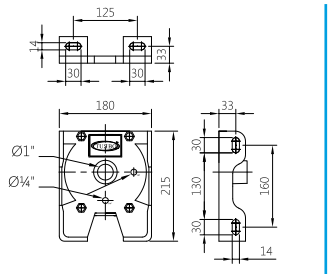
| |
|---|
| Tank body<br>Extruded anodised aluminium |
| Ends<br>Die-cast aluminium |
| Air cannons<br>Galvanised steel |
| O-Ring<br>NBR |
| Operating temperature<br>-20°C +80°C |
| Operating pressure<br>0.5 ÷ 6 bar - 0.5 ÷ 8 bar |
| Low temperature version<br>- 40°C +80°C<br><br>(Aluminium air cannons) |

For special versions of P min and B min, please contact our technical department

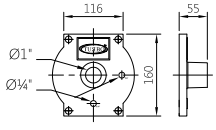
| DESCRIPTION | | TS035(N-V-T)P / TS035(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary Diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |
| 12 | Screws - Washers | TKITVTE08X20X2 |
| 13 | Valve body | 1251370 |
| 14 | O-R gasket | 3301276 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

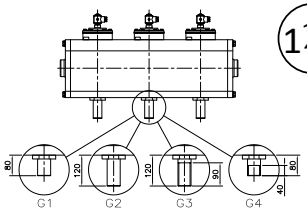
DETAIL OF BOTTOM DIMENSIONS AND FIXING




STANDARD



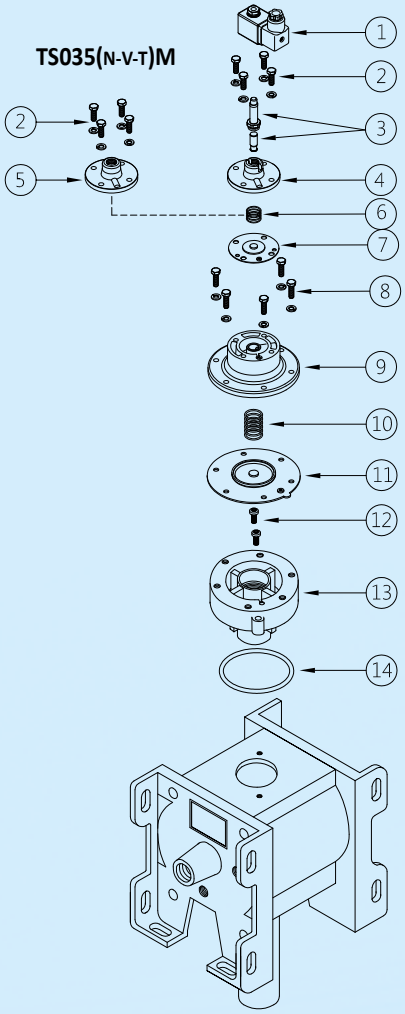

WITHOUT BRACKETS




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

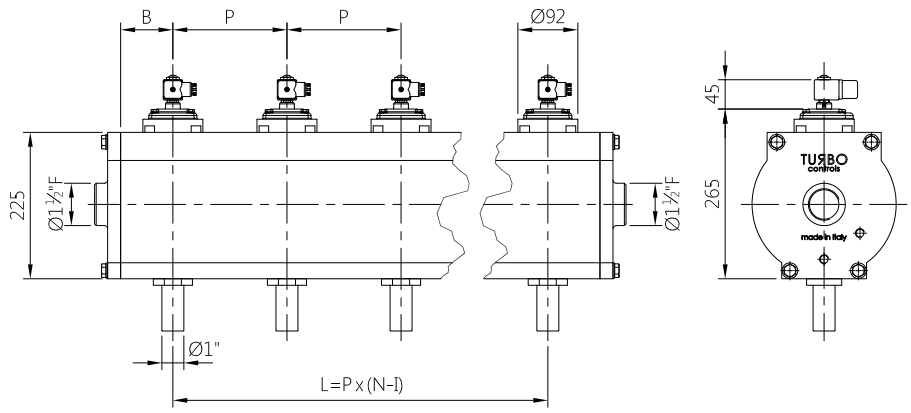
TS035(N-V-T)P

TS035(N-V-T)M



# 8” ALUTANK SERIES WITH 1” DN VALVES






## TECHNICAL FEATURES

Tank body
Extruded anodised aluminium

Ends
Die-cast aluminium

Air cannons
Galvanised steel

O-Ring
NBR

Operating temperature
-20°C +80°C

Operating pressure
0.5 ÷ 6 bar - 0.5 ÷ 8 bar

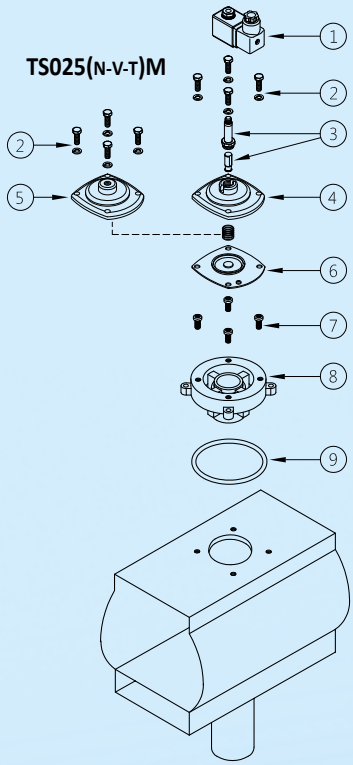
Low temperature version
- 40°C +80°C

(Aluminium air cannons)

Please contact our technical department for P min and B min values

**TS025(N-V-T)P**

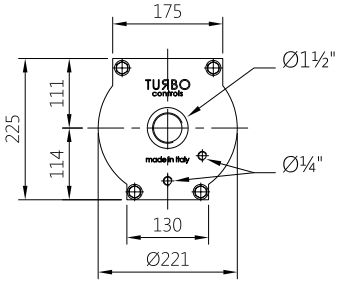
**TS025(N-V-T)M**

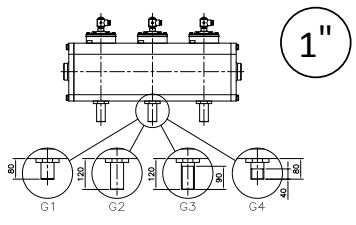



| DESCRIPTION | | TS025(N-V-T)P / TS025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM0250T Low temperature |
| 7 | Screws - Washers | TKITVTE06X16X4 |
| 8 | Valve body | 1251300 |
| 9 | O-R gasket | 3301285 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

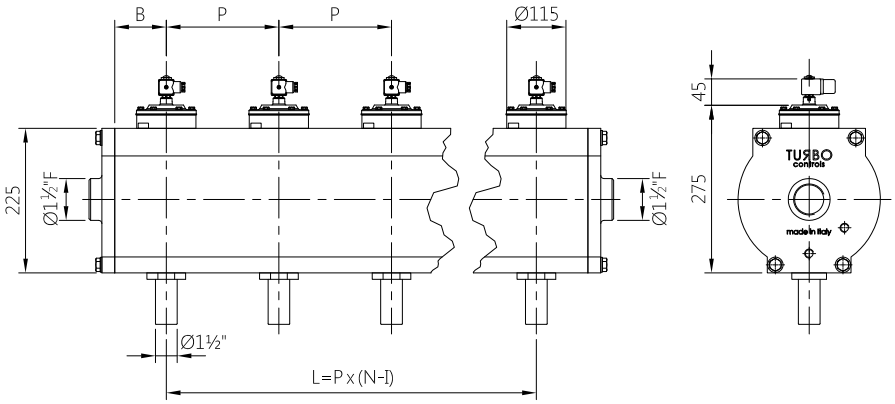
BOTTOM DIMENSIONS




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

# 8" ALUTANK SERIES WITH 1½" DN VALVES




## TECHNICAL FEATURES

Tank body
Extruded anodised aluminium

Ends
Die-cast aluminium

Air cannons
Galvanised steel

O-Ring
NBR

Operating temperature
-20°C +80°C

Operating pressure
0.5 ÷ 6 bar - 0.5 ÷ 8 bar

Low temperature version
- 40°C +80°C

(Aluminium air cannons)

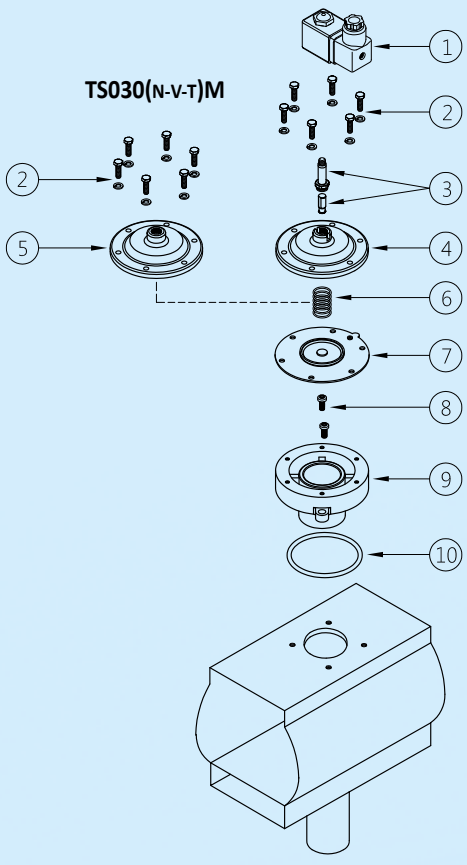
Please contact our technical department for P min and B min values

| DESCRIPTION | | TS030(N-V-T)P / TS030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6 | Diaphragm spring | 3241018 |
| 7 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X2 |
| 9 | Valve body | 1251370 |
| 10 | O-R gasket | 3301276 |

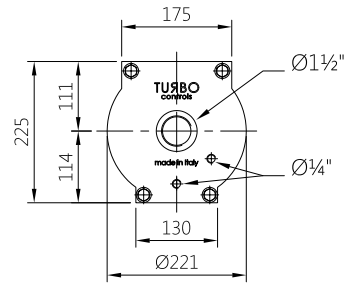
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

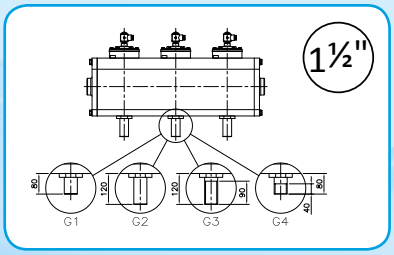
TS030(N-V-T)P

TS030(N-V-T)M



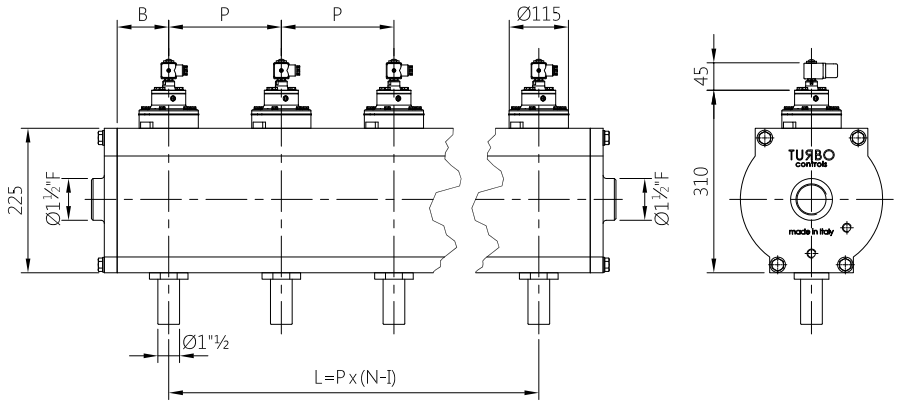

BOTTOM DIMENSIONS




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

# 8" ALUTANK SERIES WITH 1½" DN VALVES



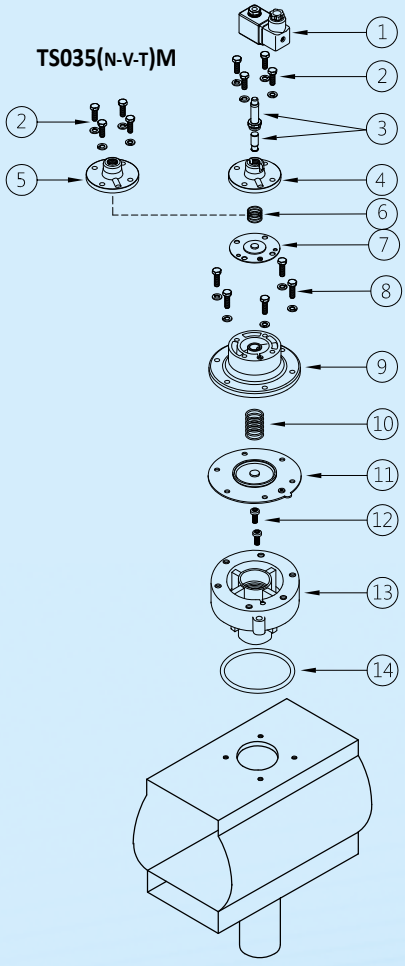

## TECHNICAL FEATURES

| |
|---|
| Tank body<br>Extruded anodised aluminium |
| Ends<br>Die-cast aluminium |
| Air cannons<br>Galvanised steel |
| O-Ring<br>NBR |
| Operating temperature<br>-20°C +80°C |
| Operating pressure<br>0.5 ÷ 6 bar - 0.5 ÷ 8 bar |
| Low temperature version<br>- 40°C +80°C<br><br>(Aluminium air cannons) |

Please contact our technical department for P min and B min values

**TS035(N-V-T)P**

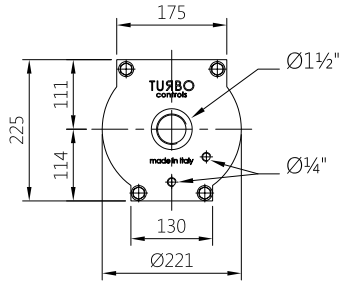
**TS035(N-V-T)M**



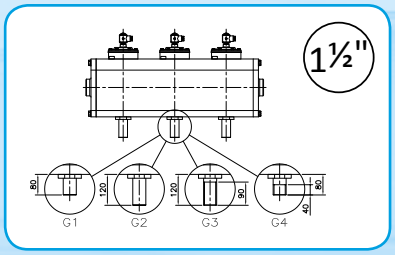

| DESCRIPTION | | TS035(N-V-T)P / TS035(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary Diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |
| 12 | Screws - Washers | TKITVTE08X20X2 |
| 13 | Valve body | 1251370 |
| 14 | O-R gasket | 3301276 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

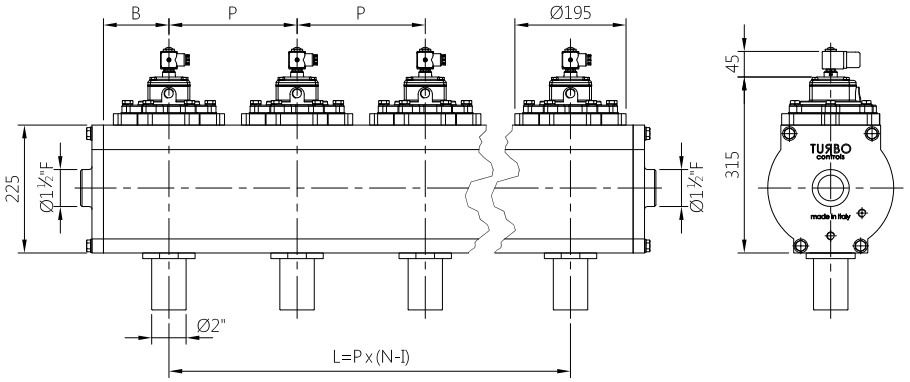
BOTTOM DIMENSIONS




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4



# 8” ALUTANK SERIES WITH 2” DN VALVES




## TECHNICAL FEATURES

Tank body
Extruded anodised aluminium

Ends
Die-cast aluminium

Air cannons
Galvanised steel

O-Ring
NBR

Operating temperature
-20°C +80°C

Operating pressure
0.5 ÷ 6 bar - 0.5 ÷ 8 bar

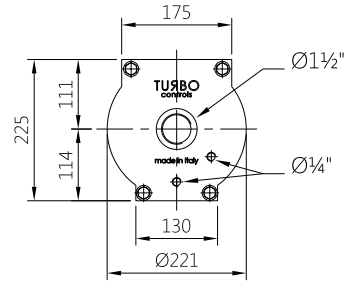
Low temperature version
- 40°C +80°C

(Aluminium air cannons)

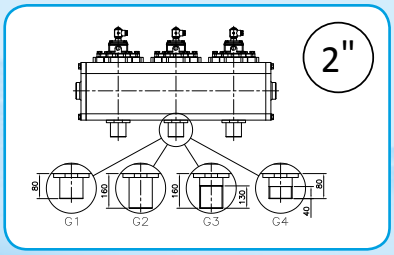
Please contact our technical department for P min and B min values

| DESCRIPTION | | TS050(N-V-T)P / TS050(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251650 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM050N Neoprene<br>TKISM050V Viton<br>TKISM050T Low temperature |
| 11 | Valve body | 1251460 |
| 12 | O-R gasket | 3301203 |

BOTTOM DIMENSIONS



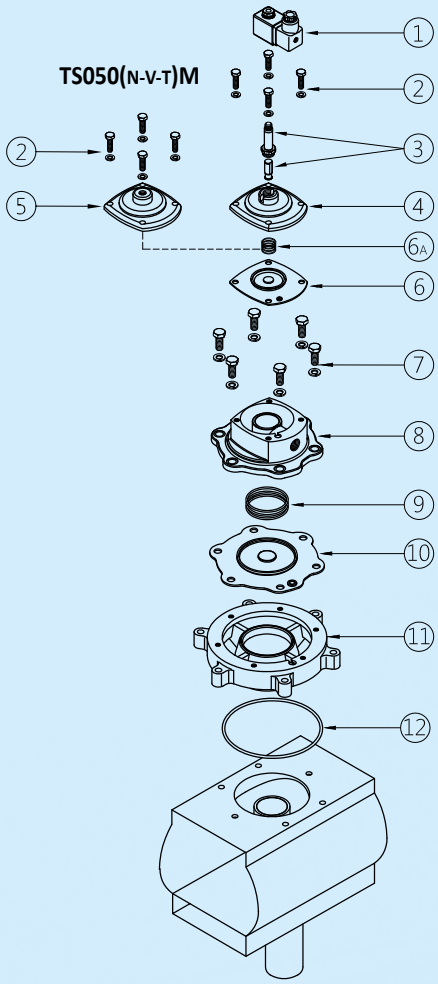

V## / V## = 24 Vdc
- 24 Vac - 115 Vac - 230 Vac




SHORT PLAIN OUTLET PIPE = G1
LONG PLAIN OUTLET PIPE = G2
LONG THREADED OUTLET PIPE = G3
SHORT THREADED OUTLET PIPE = G4

TS050(N-V-T)P

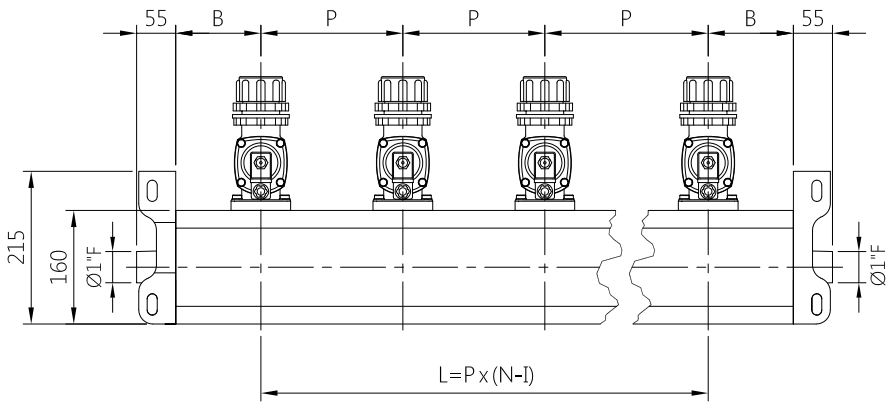
TS050(N-V-T)M



# 6” ALUTANK SERIES WITH 1” DN VALVES



Patented




P min = 120 / B min = 70

For special versions of P min and B min, please contact our technical department

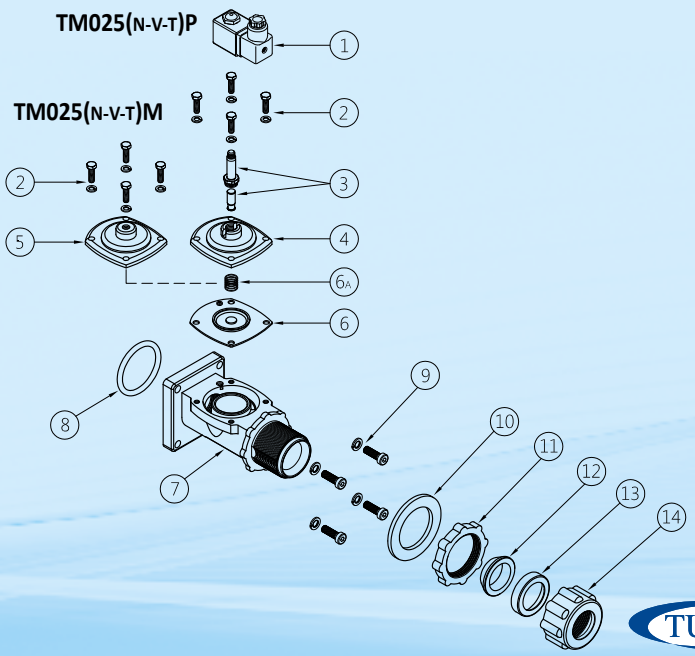
## TECHNICAL FEATURES

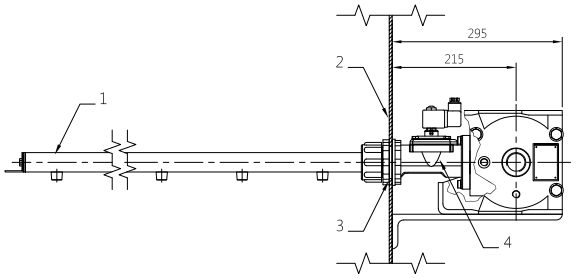
| |
|---|
| Tank body<br>Extruded anodised aluminium |
| Ends<br>Aluminium |
| Air cannons<br>Galvanised steel |
| O-Ring<br>NBR |
| Operating temperature<br>-20°C +80°C |
| Operating pressure<br>0.5 ÷ 6 bar - 0.5 ÷ 8 bar |

N.B. configuration for low temperature - 40°C +80°C

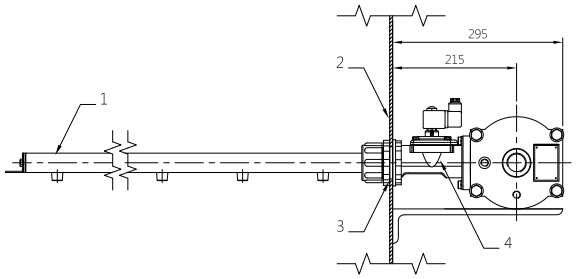
| DESCRIPTION | | TM025(N-V-T)P / TM025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Valve body | 1251180 |
| 8 | O-R gasket | 3301271 |
| 9 | Screws - Washers | TKITVTE08X25X4 |
| 10 | Seal | 3141702 |
| 11 | Lock nut | 3181036 |
| 12 | Conical seal | 3301013 |
| 13 | Retaining ring | 1321010 |
| 14 | Hose Clamp High Nut | 1281045 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac



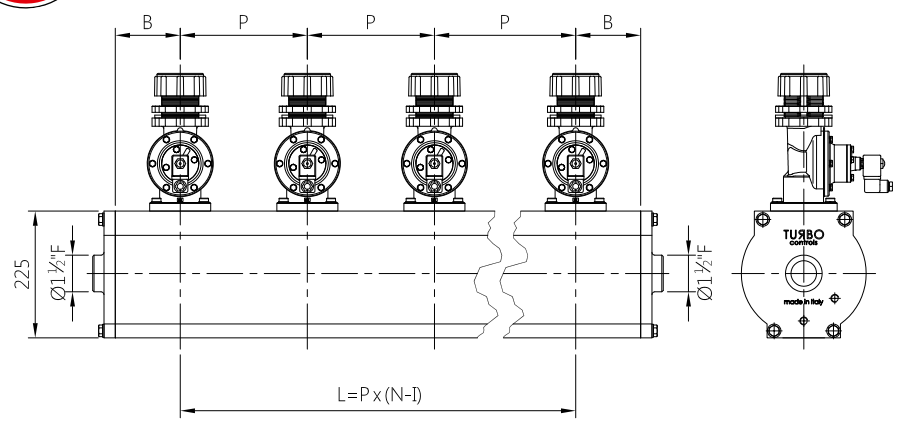

1. 1" AIR CANNON
2. FILTER WALL
3. HOLE ON WALL MIN ø 56 mm
4. 1" STRAIGHT THROUGH VALVE




1. 1" AIR CANNON
2. FILTER WALL
3. HOLE ON WALL MIN ø 56 mm
4. 1" STRAIGHT THROUGH VALVE

# 8” ALUTANK SERIES WITH 1” 1½ DN VALVES’

Patented

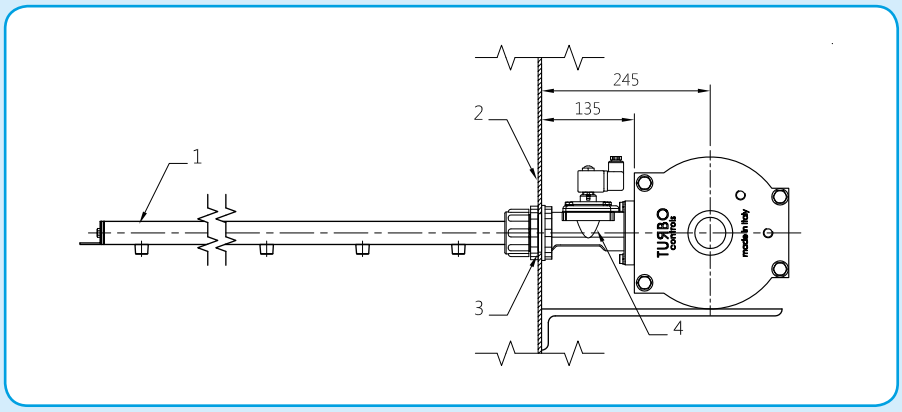



## TECHNICAL FEATURES

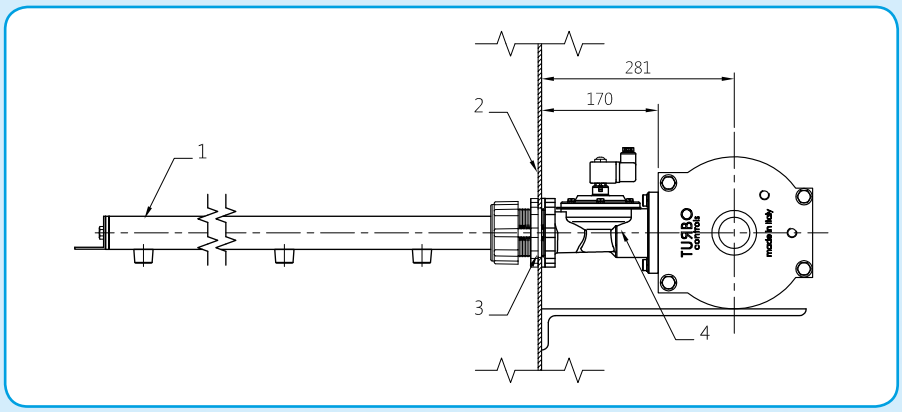
| | |
|---|---|
| Tank body | Extruded anodised aluminium |
| Ends | Aluminium |
| Air cannons | Galvanised steel |
| O-Ring | NBR |
| Operating temperature | -20°C +80°C |
| Operating pressure | 0.5 ÷ 6 bar - 0.5 ÷ 8 bar |
| Configuration for low temperature | - 40°C +80°C |

Please contact our technical department for P min and B min values

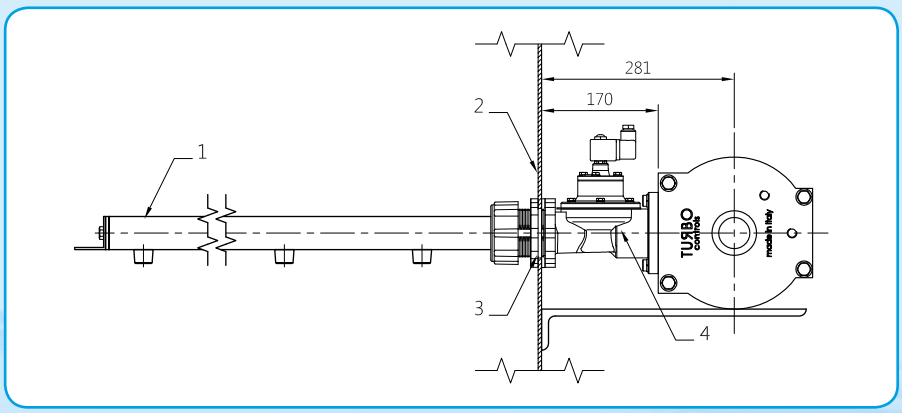
1. 1" AIR CANNON
2. FILTER WALL
3. HOLE ON WALL MIN ø 56 mm
4. 1" STRAIGHT THROUGH VALVE




1. 1 ½" AIR CANNON
2. FILTER WALL
3. HOLE ON WALL MIN ø 72 mm
4. 1½" STRAIGHT THROUGH VALVE

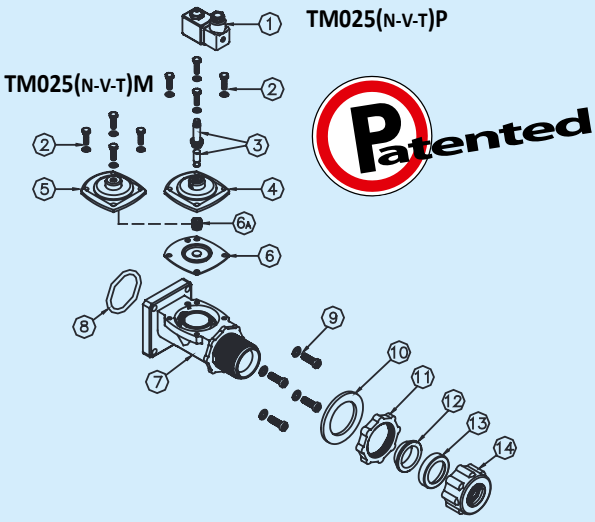



1. 1 ½" AIR CANNON
2. FILTER WALL
3. HOLE ON WALL MIN ø 72 mm
4. 1½" STRAIGHT THROUGH VALVE

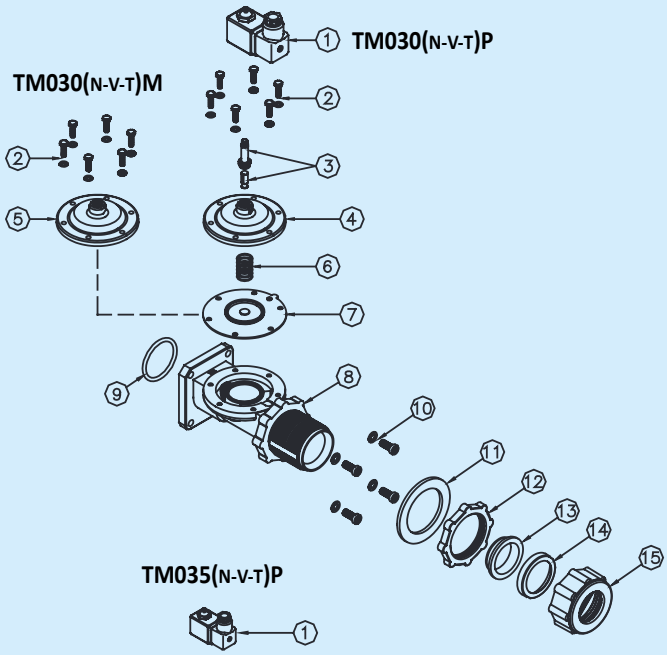


# 8” ALUTANK SERIES WITH 1” 1½ DN VALVES

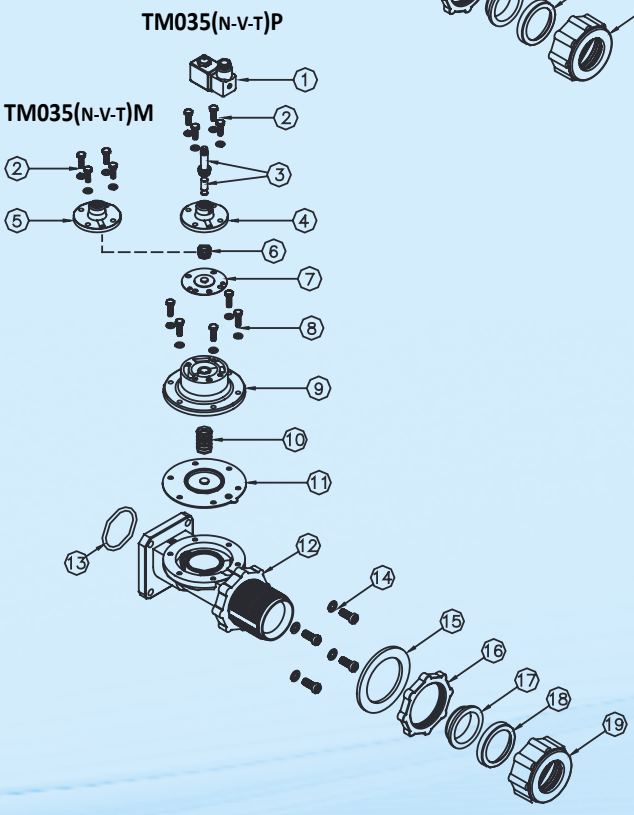





| DESCRIPTION | | TM025(N-V-T)P / TM025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Valve body | 1251180 |
| 8 | O-R gasket | 3301271 |
| 9 | Screws - Washers | TKITVTE08X25X4 |
| 10 | Seal | 3141702 |
| 11 | Lock nut | 3181036 |
| 12 | Conical seal | 3301013 |
| 13 | Retaining ring | 1321010 |
| 14 | Hose clamp high nut | 1281045 |



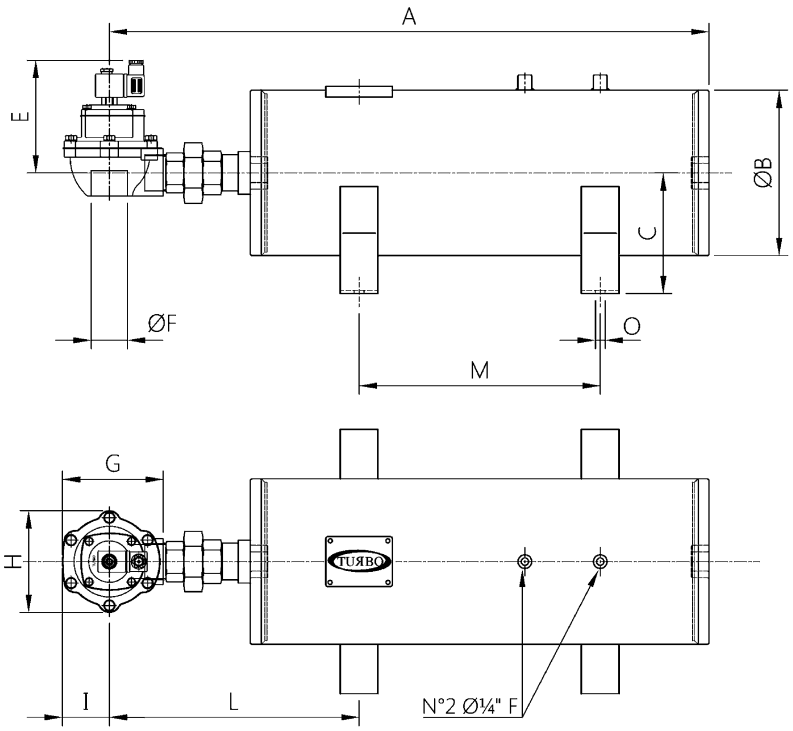

| DESCRIPTION | | TM030(N-V-T)P / TM030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6 | Diaphragm spring | 3241018 |
| 7 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |
| 8 | Valve body | 1251320 |
| 9 | O-R gasket | 3301281 |
| 10 | Screws - Washers | TKITVTE10X25X4 |
| 11 | Seal | 3141706 |
| 12 | Lock nut | 3181032 |
| 13 | Conical seal | 3301017 |
| 14 | Retaining ring | 1321012 |
| 15 | Hose clamp high nut | 1281050 |




| DESCRIPTION | | TM035(N-V-T)P / TM035(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary Diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary Diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |
| 12 | Valve body | 1251320 |
| 13 | O-R gasket | 3301281 |
| 14 | Screws - Washers | TKITVTE10X25X4 |
| 15 | Seal | 3141706 |
| 16 | Lock nut | 3181032 |
| 17 | Conical seal | 3301017 |
| 18 | Retaining ring | 1321012 |
| 19 | Hose clamp high nut | 1281050 |

V## / V## = 24 Vdc
- 24 Vac - 115 Vac - 230 Vac

# PACK SERIES



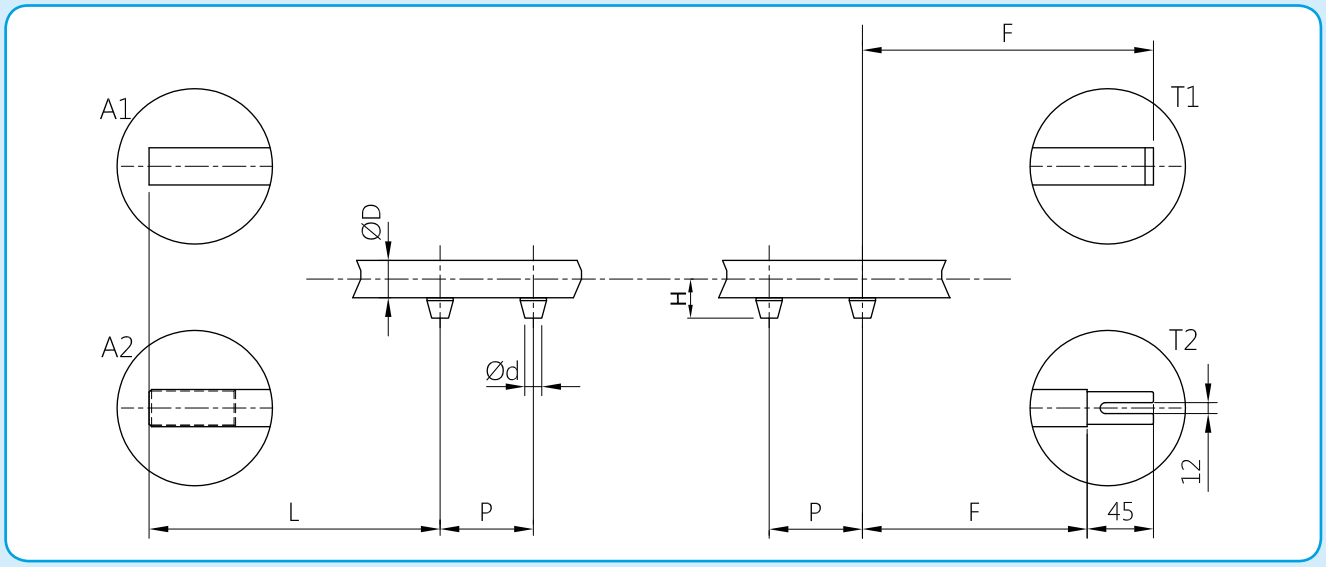

| Model | A | ØB | C | E | ØF | G | H | I | L | M | N | ØO | Ø P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PACK 5 | 545 | 141.3 (ø5”) | 100 | 100 | ¾” | 90 | 73 | 38 | 265 | 150 | 120 | 13 | ½” | 250 |
| PACK 15 | 868 | 168.3 (ø6”) | 124 | 100 | 1” | 90 | 73 | 38 | 368 | 280 | 160 | 13 | ½” | 250 |
| PACK 25 | 895 | 219.1 (ø8”) | 160 | 150 | 1 ½" | 133.5 | 135 | 62 | 375 | 320 | 260 | 13 | ½” | 350 |
| PACK 50 | 1174 | 273 ( ø10”) | 214 | 185 | 2” | 198 | 190 | 83 | 539 | 320 | 260 | 13 | ½” | 350 |
| PACK 100 | 1600 | 324 ( ø12”) | 214 | 162 | 2 ½" | 198 | 190 | 83 | 535 | 800 | 260 | 13 | ½” | 350 |

**CODE AND TECHNICAL FEATURES**

TS 25 P100 N10 D10 L150 F200 H15 A2 T2

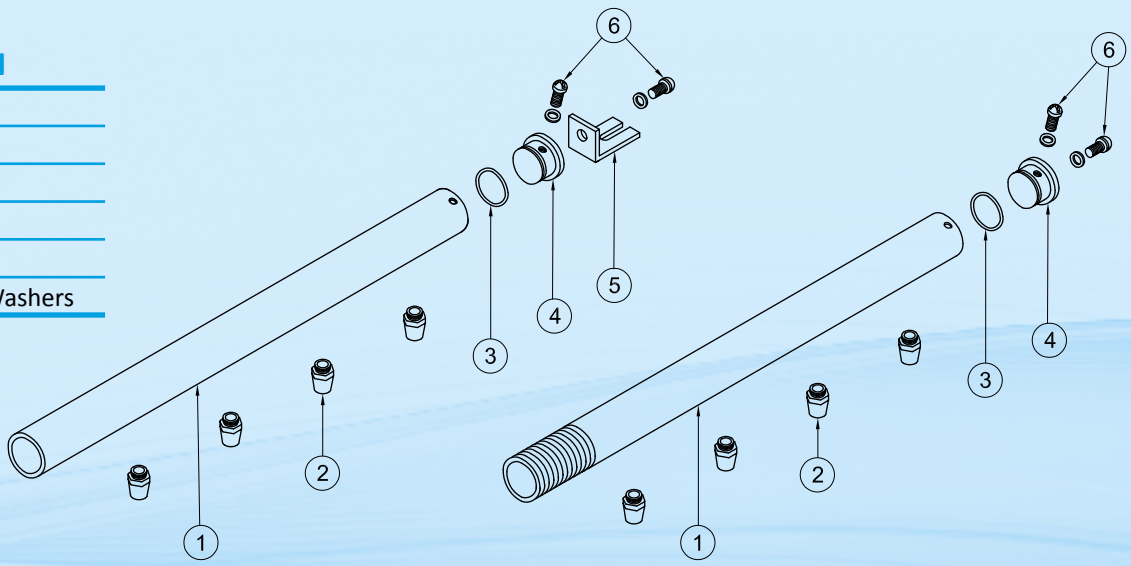
- TS = AIR CANNON
- **Ø D: AIR CANNON DIAMETER**
  - 20 ¾ ”
  - 25 1”
  - 40 1 ½"
  - 50 2”
- P = DISTANCE BETWEEN NOZZLES
- N = NUMBER OF NOZZLES
- D = NOZZLE INNER DIAMETER
- L = DISTANCE BETWEEN START OF AIR CANNON HOSE AND THE FIRST NOZZLE
- F = DISTANCE BETWEEN THE LAST NOZZLE AND THE BRACKET
- H = NOZZLE HEIGHT
- A1 = START OF THE PLAIN PIPE
- A2 = START OF THE THREADED PIPE
- T1 = PIPE END WITH PLUG
- T2 = PIPE END WITH BRACKET

For special executions and boring exceeding 2",
please contact our technical dept.




## DESCRIPTION

| | |
|---|---|
| 1 | Air cannon |
| 2 | Nozzle |
| 3 | O-Ring |
| 4 | Plug |
| 5 | Bracket |
| 6 | Screws + Washers |



# DIAPHRAGM VALVES

In order to satisfy its customers, Turbo has designed and manufactured a series of dust collector valves, which can meet any requirement.

The flexibility and dynamism of our company, combined with our in-depth technical skills, means that any design requirement, even the most particular, can be met very quickly.

All Turbo valves are designed to last over time.

Moreover, the valves' opening and closing allow you to optimise air and energy consumption.

We provide the following ranges of valves:

1 - Diaphragm valves with threaded connectors (TF series)
2 - Diaphragm valves with quick connectors (TD series)
3 - Flanged diaphragm valves (TE series)



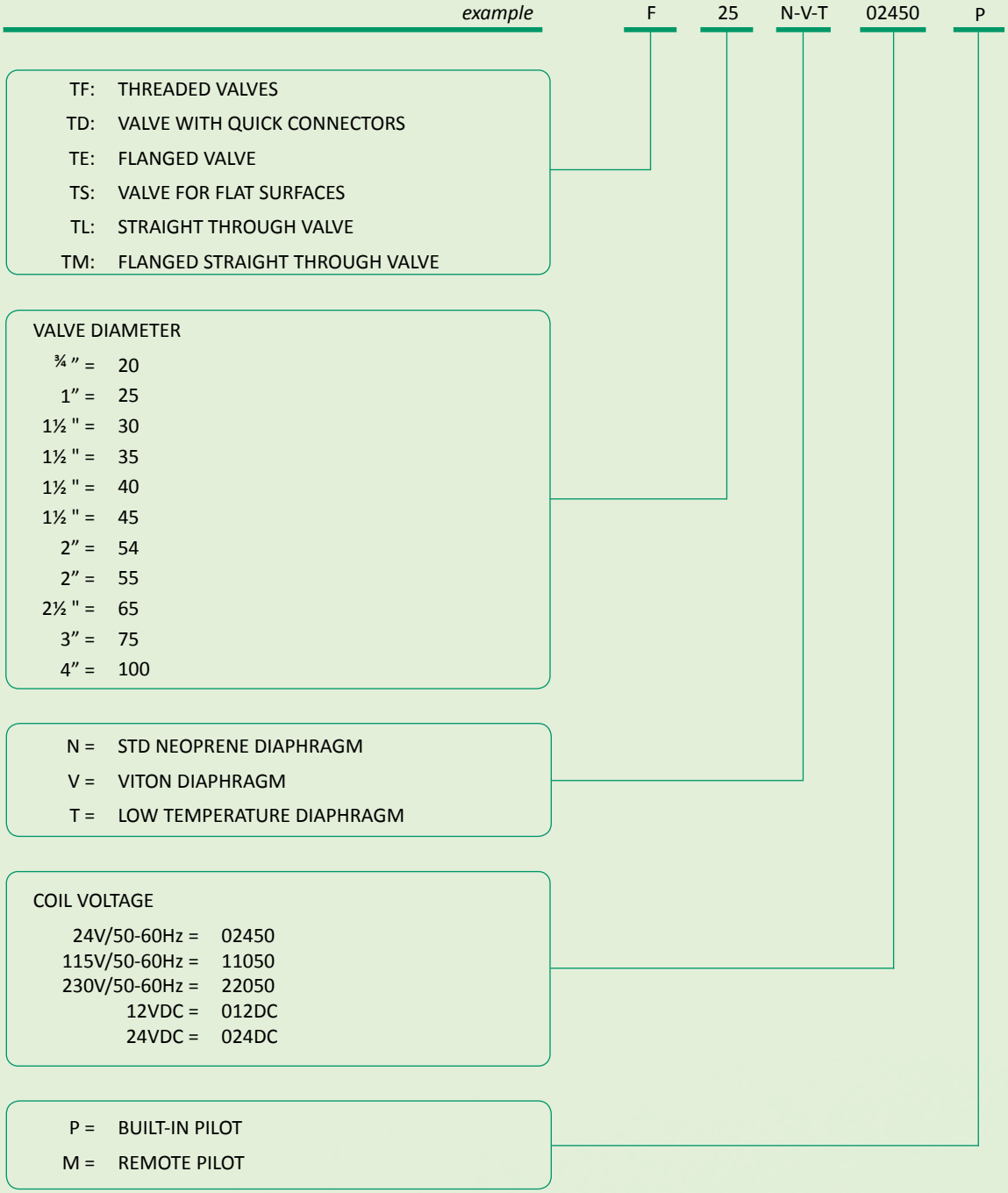
4 - Diaphragm valves for flat surfaces (TS series)
5 - Straight through diaphragm valves (TL series)
6 - Flanged straight through diaphragm valves (TM series)

These valves can be manufactured in compliance with the EU 2014/34/EU European directive with the following markings:

ATEX II 2 GD (zone 1 and 21)
ATEX II 3 GD (zone 2 and 22).

(The ATEX directive is illustrated at page 107/108)

# HOW TO ORDER



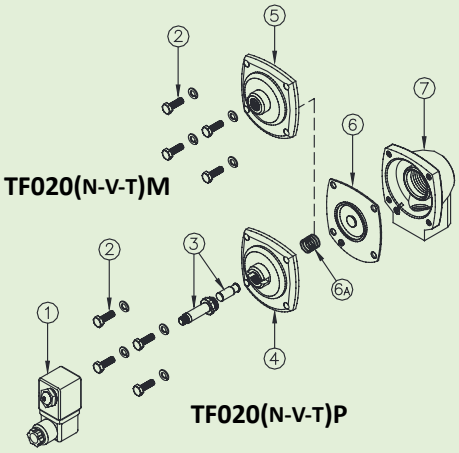

The Code TF025NPB represents a threaded valve of the TF series, which has an electric pilot installed (P), a 1'' diameter (25) and is powered by a 24V 50Hz voltage (02450).

| | |
|---|---|
| DIAPHRAGM VALVES WITH THREADED CONNECTORS | TF series |
| DIAPHRAGM VALVES WITH QUICK CONNECTORS | TD series |
| FLANGED DIAPHRAGM VALVES | TE series |
| DIAPHRAGM VALVES FOR FLAT SURFACES | TS series |
| STRAIGHT THROUGH DIAPHRAGM VALVES | TL series |
| FLANGED STRAIGHT THROUGH DIAPHRAGM VALVES | TM series |

# VALVES WITH THREADED CONNECTORS - TF SERIES - Ø ¾"-1"-1 ½"-2"-2 ½"

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

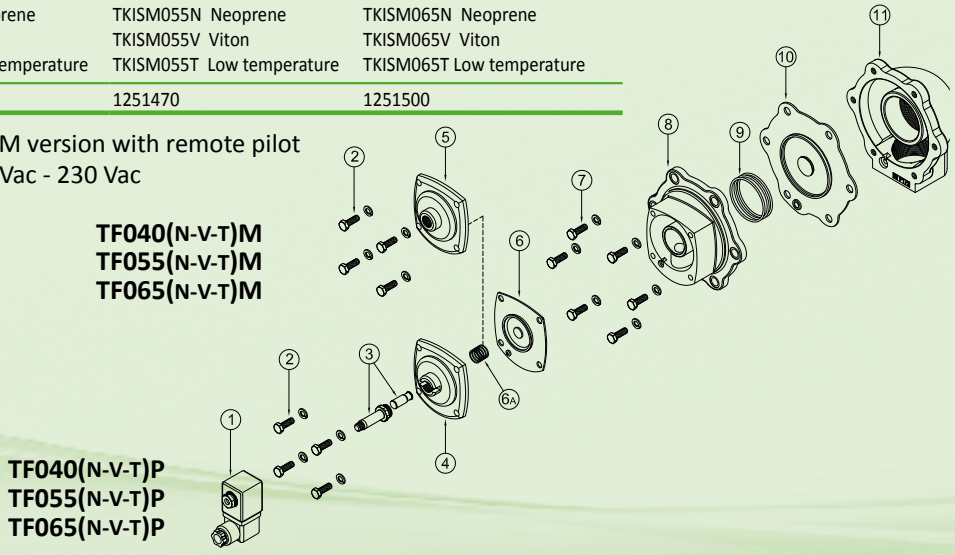
| | DESCRIPTION | TF020(N-V-T)P / TF020(N-V-T)M | TF025(N-V-T)P / TF025(N-V-T)M |
|---|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251750 |
| 5 | Remote cover | 1251770 | 1251770 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 | 3241002 |
| 7 | Valve body | 1251120 | 1251190 |




TFP version with built-in pilot / TFM version with remote pilot

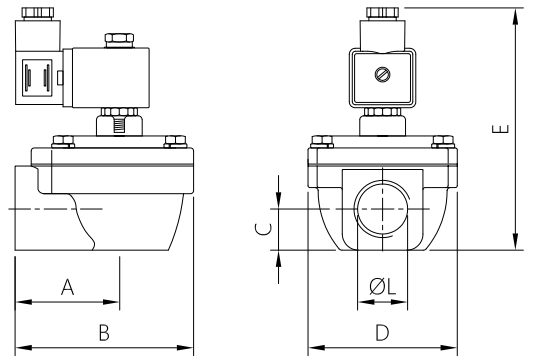
| | DESCRIPTION | TF040(N-V-T)P<br>TF040(N-V-T)M | TF055(N-V-T)P<br>TF055(N-V-T)M | TF065(N-V-T)P<br>TF065(N-V-T)M |
|---|---|---|---|---|
| 1 | Coil + Connector | BH10 V## / V## | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws + Washers | TKITVTE06X20X4 | TKITVTE06X20X4 | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251750 | 1251750 |
| 5 | Remote cover | 1251770 | 1251770 | 1251770 |
| 6 | Secondary Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 | 3241002 | 3241002 |
| 7 | Screws + Washers | TKITVTE08X20X6 | TKITVTE10X25X6 | TKITVTE10X25X6 |
| 8 | Cover | 1251620 | 1251660 | 1251660 |
| 9 | Diaphragm spring | 3241024 | 3241024 | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM040N Neoprene<br>TKISM040V Viton<br>TKISM040T Low temperature | TKISM055N Neoprene<br>TKISM055V Viton<br>TKISM055T Low temperature | TKISM065N Neoprene<br>TKISM065V Viton<br>TKISM065T Low temperature |
| 11 | Valve body | 1251400 | 1251470 | 1251500 |

TFP version with built-in pilot / TFM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

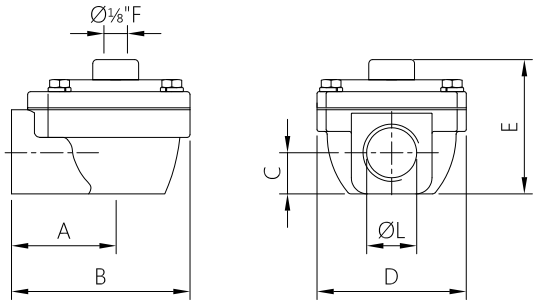


# TF SERIES- Ø ¾”-1”-1 ½”-2”-2 ½” - OVERALL DIMENSIONS

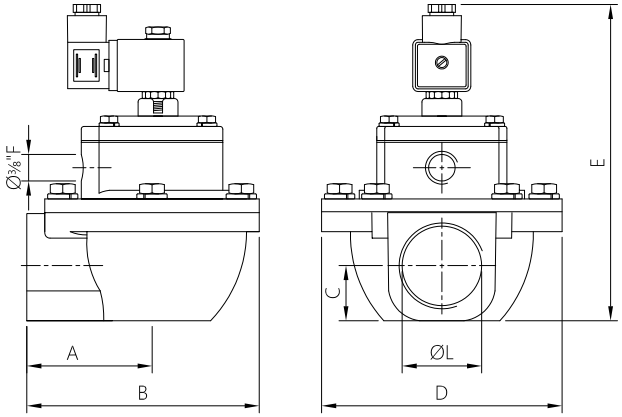
## TF020(N-V-T)P / TF025(N-V-T)P



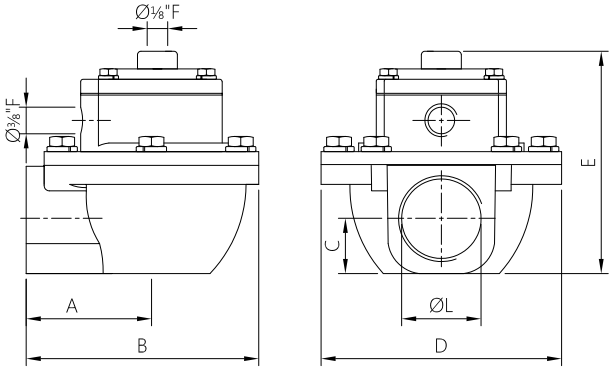

## TF020(N-V-T)M / TF025(N-V-T)M




## TF040(N-V-T)P / TF055(N-V-T)P / TF065(N-V-T)P




## TF040(N-V-T)M / TF055(N-V-T)M / TF065(N-V-T)M




| MODEL | ø L (nom) | A | B | C | D | E | Weight (kg) |
|---|---|---|---|---|---|---|---|
| TF020(N-V-T)P | ¾” | 52 | 90 | 20.5 | 74 | ~125 | 0.6 |
| TF025(N-V-T)P | 1” | 52 | 90 | 20.5 | 74 | ~125 | 0.5 |
| TF040(N-V-T)P | 1 ½" | 71.3 | 135 | 31 | 140 | ~188 | 1.6 |
| TF055(N-V-T)P | 2” | 114 | 203 | 40 | 194 | ~225 | 3.7 |
| TF065(N-V-T)P | 2 ½" | 114 | 203 | 48 | 194 | ~225 | 3.6 |
| | | | | | | | |
| TF020(N-V-T)M | ¾” | 52 | 90 | 20.5 | 74 | ~67 | 0.4 |
| TF025(N-V-T)M | 1” | 52 | 90 | 20.5 | 74 | ~67 | 0.3 |
| TF040(N-V-T)M | 1 ½" | 71.3 | 135 | 31 | 140 | ~130 | 1.4 |
| TF055(N-V-T)M | 2” | 114 | 203 | 40 | 194 | ~167 | 3.5 |
| TF065(N-V-T)M | 2 ½" | 114 | 203 | 48 | 194 | ~167 | 3.4 |

Note: NPT threads also available.

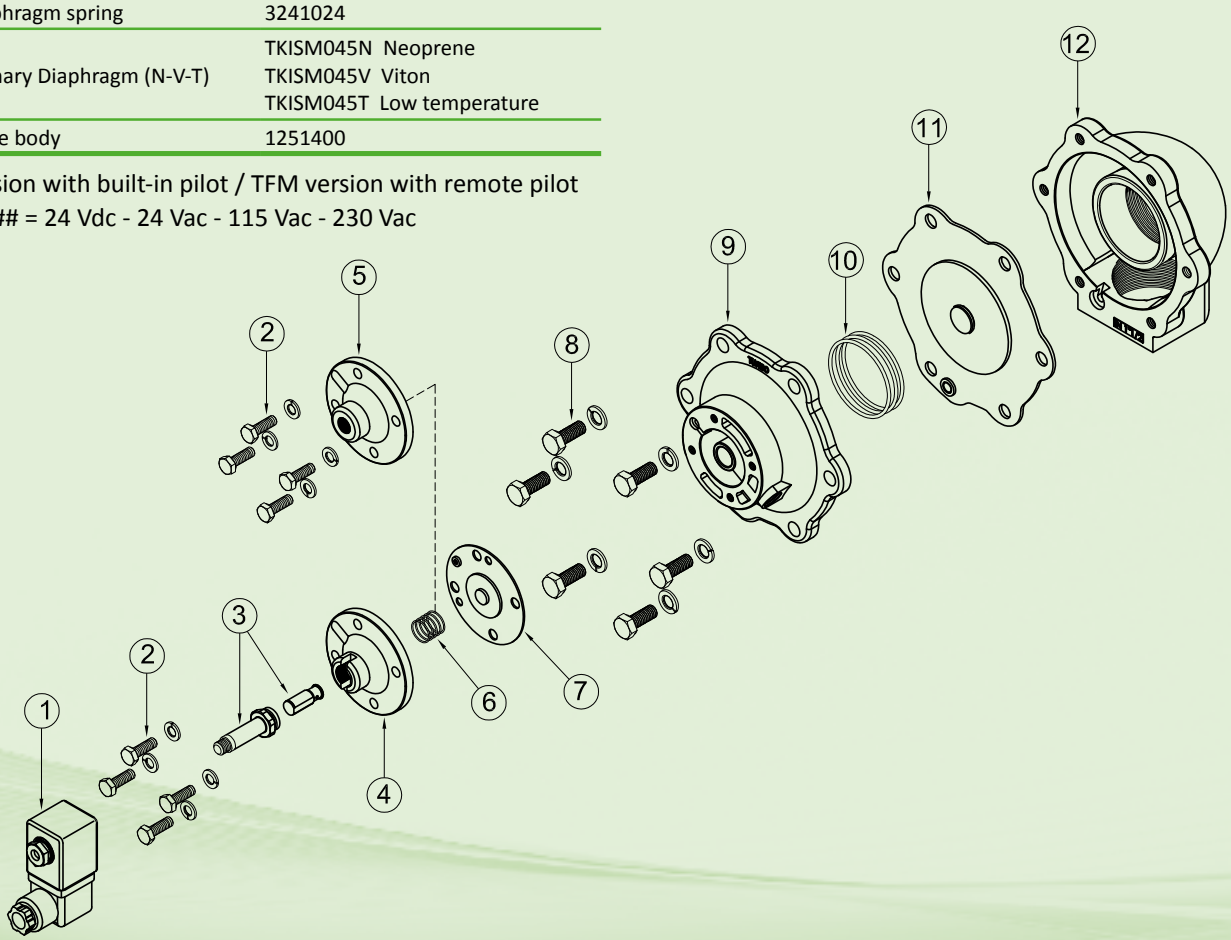
Please contact our technical department for further information

# VALVES WITH THREADED CONNECTORS - TF SERIES - ø 1 ½”

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

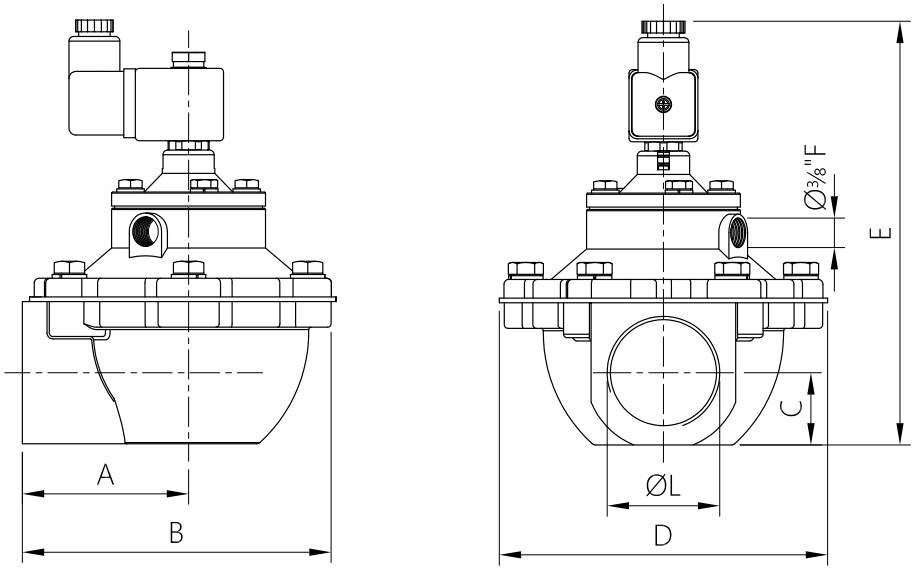
| DESCRIPTION | | TF045(N-V-T)P / TF045(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251715 |
| 5 | Remote cover | 1251745 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE08X20X6 |
| 9 | Cover | 1251840 |
| 10 | Diaphragm spring | 3241024 |
| 11 | Primary Diaphragm (N-V-T) | TKISM045N Neoprene<br>TKISM045V Viton<br>TKISM045T Low temperature |
| 12 | Valve body | 1251400 |

TFP version with built-in pilot / TFM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

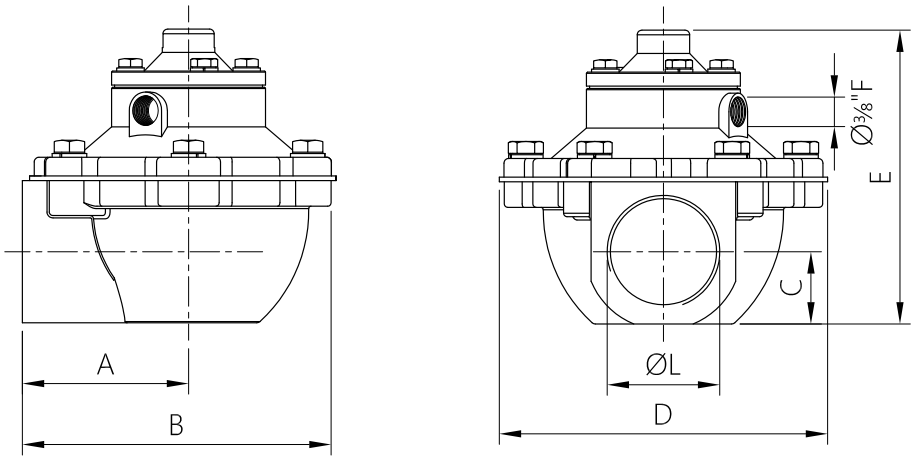


# TF SERIES - Ø 1 ½”- OVERALL DIMENSIONS

## TF045(N-V-T)P




## TF045(N-V-T)M




| MODEL | ø L (nom) | A | B | C | D | E | Weight (kg) |
|---|---|---|---|---|---|---|---|
| TF045(N-V-T)P | 1 ½" | 71.3 | 135 | 31 | 140 | ~188 | 1.6 |
| TF045(N-V-T)M | 1 ½" | 71.3 | 135 | 31 | 140 | ~122 | 1.4 |

# VALVES WITH THREADED CONNECTORS - F SERIES - Ø 2”

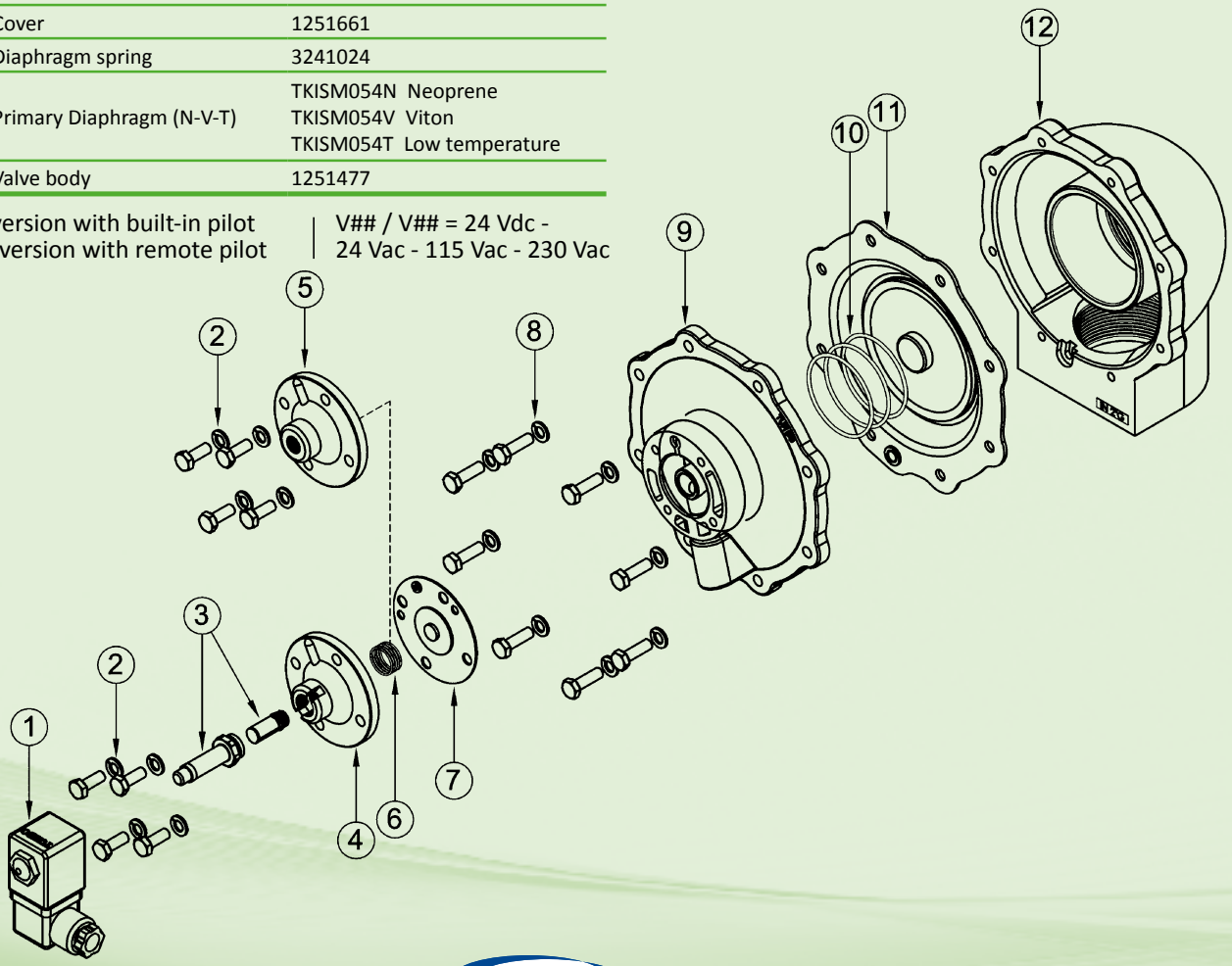
| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

Compact valve for installations with pitch of 160 mm

| DESCRIPTION | | TF054(N-V-T)P / TF054(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251715 |
| 5 | Remote cover | 1251745 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE08X20X6 |
| 9 | Cover | 1251661 |
| 10 | Diaphragm spring | 3241024 |
| 11 | Primary Diaphragm (N-V-T) | TKISM054N Neoprene<br>TKISM054V Viton<br>TKISM054T Low temperature |
| 12 | Valve body | 1251477 |

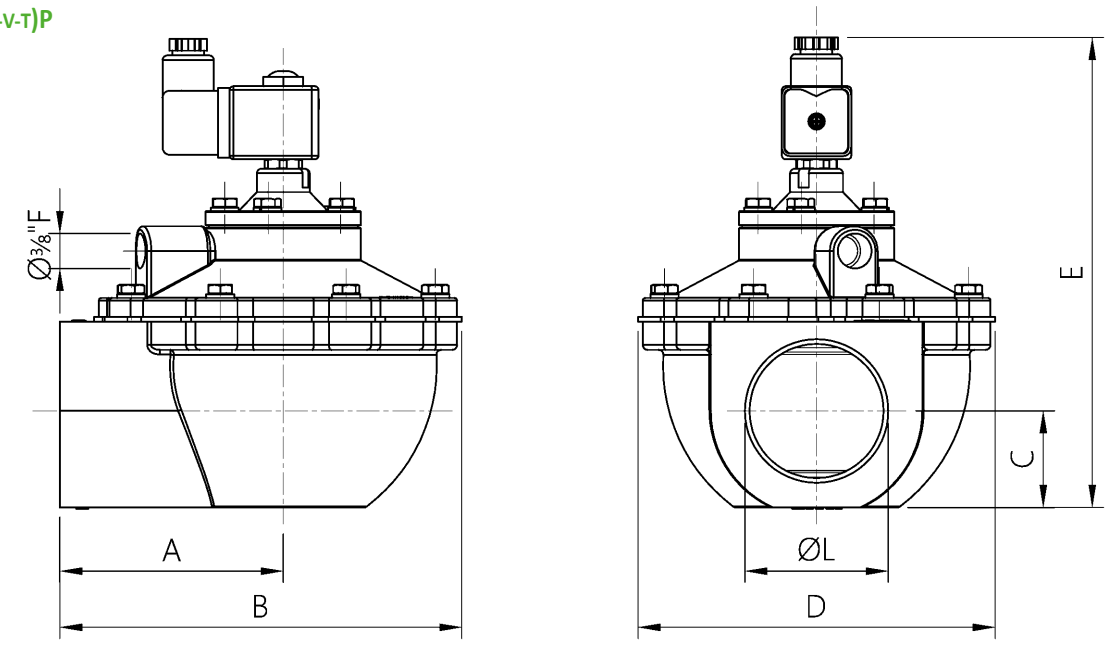
TFP version with built-in pilot
TFM version with remote pilot

V## / V## = 24 Vdc -
24 Vac - 115 Vac - 230 Vac

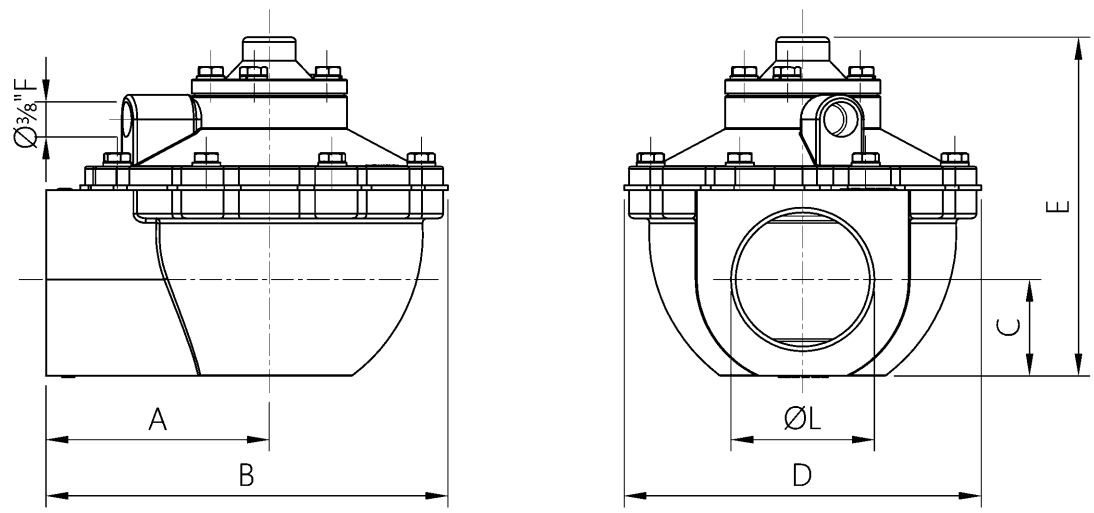


# F SERIES - Ø 2”- OVERALL DIMENSIONS

## TF054(N-V-T)P




## TF054(N-V-T)M



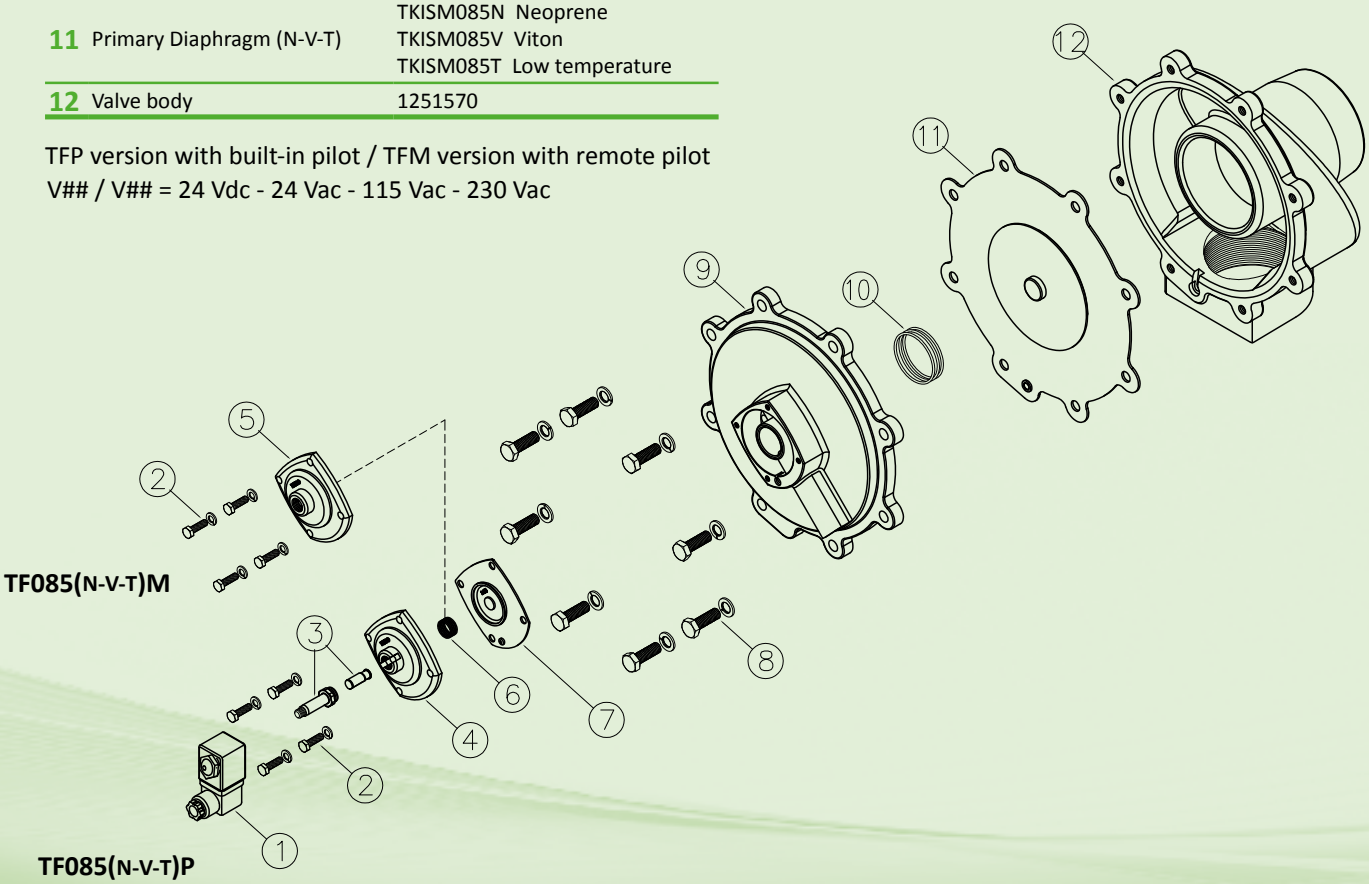

| MODEL | ø L (nom) | A | B | C | D | E | Weight (kg) |
|---|---|---|---|---|---|---|---|
| TF054(N-V-T)P | 2” | 95 | 171 | 41 | 152 | 200 | 2 |
| TF054(N-V-T)M | 2” | 95 | 171 | 41 | 152 | 145 | 1.8 |

# VALVES WITH THREADED CONNECTORS - TF SERIES - Ø 3”

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

| DESCRIPTION | | TF085(N-V-T)P / TF085(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Diaphragm spring | 3241002 |
| 8 | Screws - Washers | TKITVTE10X30X8 |
| 9 | Cover | 1251680 |
| 10 | Diaphragm spring | 3241024 |
| 11 | Primary Diaphragm (N-V-T) | TKISM085N Neoprene<br>TKISM085V Viton<br>TKISM085T Low temperature |
| 12 | Valve body | 1251570 |

TFP version with built-in pilot / TFM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

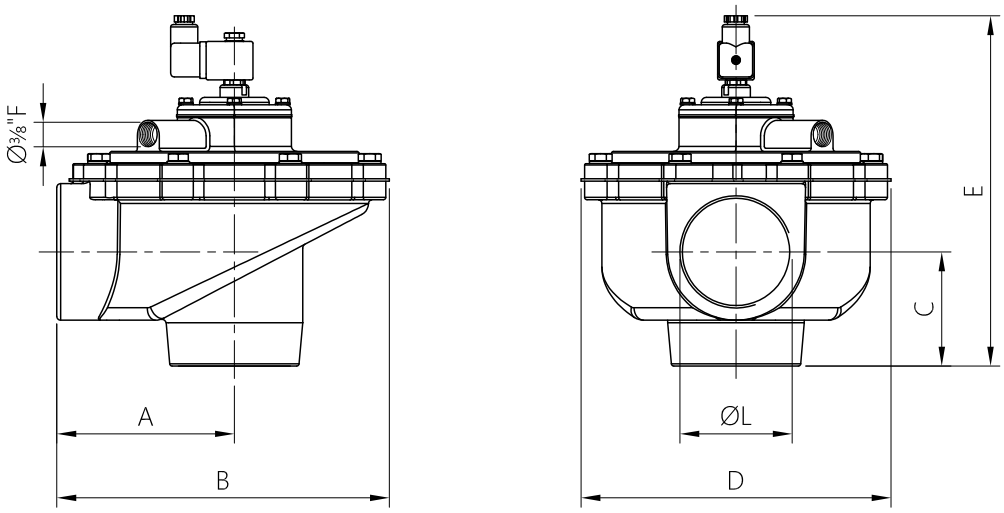



**TF085(N-V-T)M**

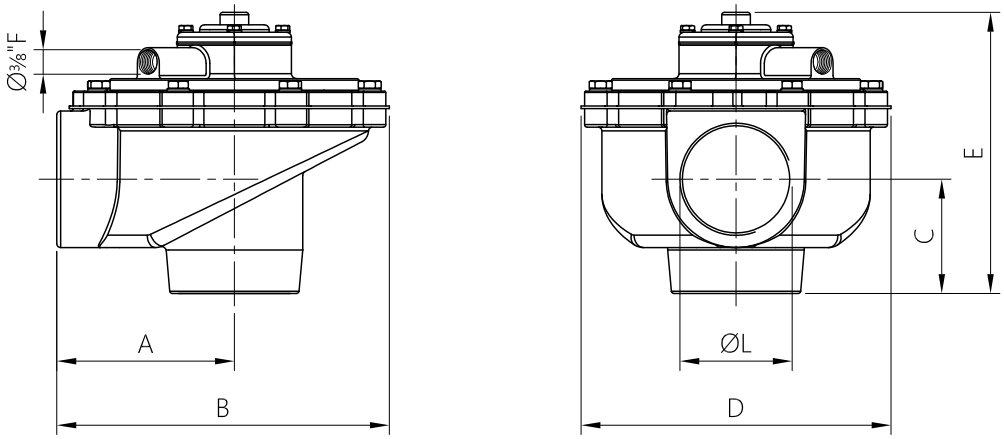
**TF085(N-V-T)P**

# TF SERIES - Ø 3”- OVERALL DIMENSIONS

## TF085(N-V-T)P




## TF085(N-V-T)M




| MODEL | ø L (nom) | A | B | C | D | E | Weight (kg) |
|---|---|---|---|---|---|---|---|
| TF085(N-V-T)P | 3” | 143 | 267 | 92 | 250 | ~282 | 7.3 |
| TF085(N-V-T)M | 3” | 143 | 267 | 92 | 250 | ~227 | 7.1 |

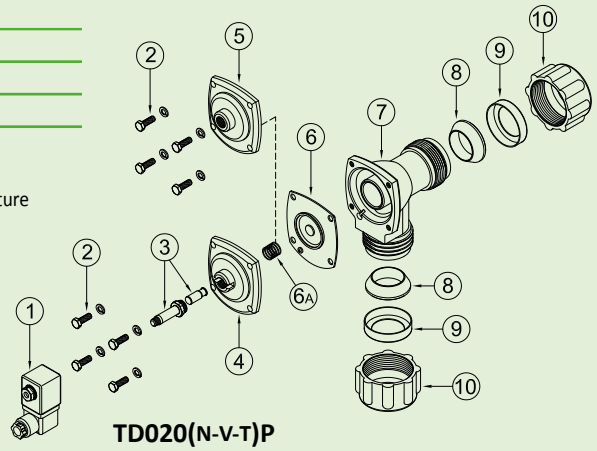
# VALVES WITH QUICK CONNECTORS - TD SERIES - Ø ¾”- 1”- 1 ½”

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

| | DESCRIPTION | TD020(N-V-T)P / TD020(N-V-T)M | TD025(N-V-T)P / TD025(N-V-T)M |
|---|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251750 |
| 5 | Remote cover | 1251770 | 1251770 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 | 3241002 |
| 7 | Valve body | 1251110 | 1251310 |
| 8 | Conical seal | 3301010 | 3301013 |
| 9 | Retaining ring | 1321006 | 1321010 |
| 10 | Hose clamp high nut | 1281040 | 1281045 |

TDP version with built-in pilot
TDM version with remote pilot

**TD020(N-V-T)M**
**TD025(N-V-T)M**



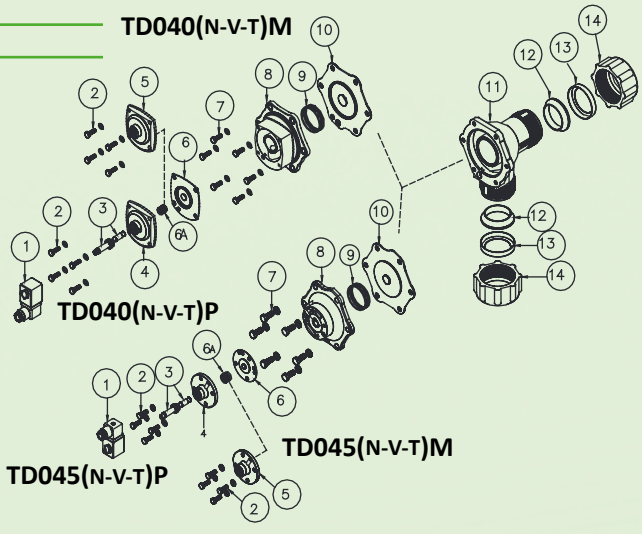
**TD020(N-V-T)P**
**TD025(N-V-T)P**

| | DESCRIPTION | TD040(N-V-T)P / TD040(N-V-T)M | TD045(N-V-T)P / TD045(N-V-T)M |
|---|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251715 |
| 5 | Remote cover | 1251770 | 1251745 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 6a | Diaphragm spring | 3241002 | 3241002 |
| 7 | Screws - Washers | TKITVTE08X20X6 | TKITVTE08X20X6 |
| 8 | Cover | 1251620 | 1251640 |
| 9 | Diaphragm spring | 3241024 | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM040N Neoprene<br>TKISM040V Viton<br>TKISM040T Low temperature | TKISM045N Neoprene<br>TKISM045V Viton<br>TKISM045T Low temperature |
| 11 | Valve body | 1251440 | 1251440 |
| 12 | Conical seal | 3301017 | 3301017 |
| 13 | Retaining ring | 1321012 | 1321012 |
| 14 | Hose clamp high nut | 1281050 | 1281050 |

TDP version with built-in pilot
TDM version with remote pilot

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

**TD040(N-V-T)M**



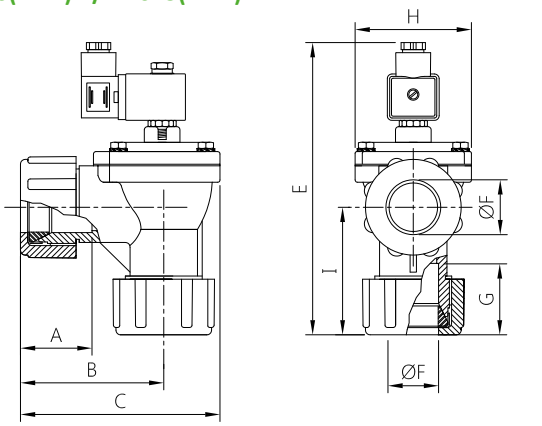
**TD040(N-V-T)P**

**TD045(N-V-T)M**

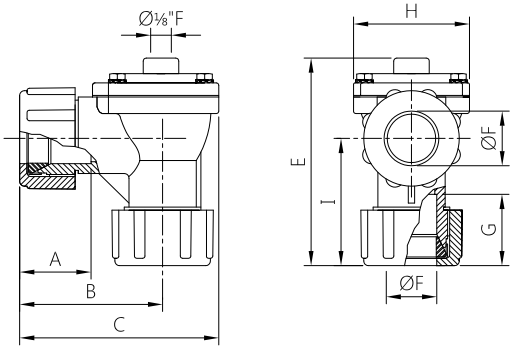
**TD045(N-V-T)P**

# TD SERIES - Ø ¾”- 1”- 1 ½” - OVERALL DIMENSIONS

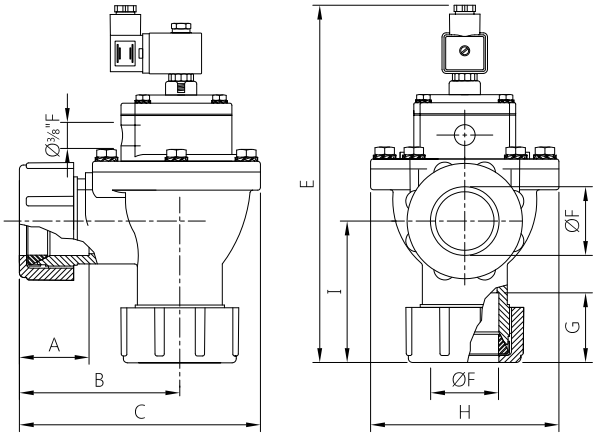
## TD020(N-V-T)P / TD025(N-V-T)P



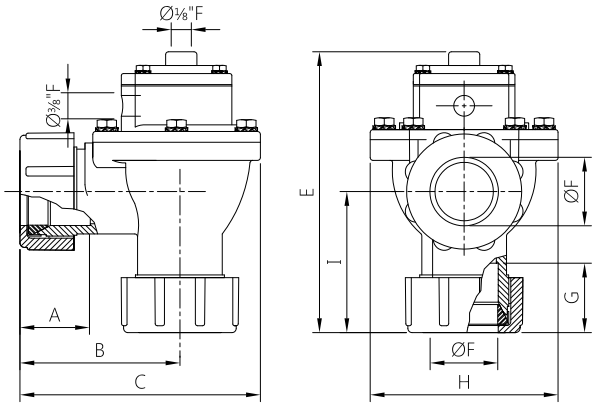

## TD020(N-V-T)M / TD025(N-V-T)M



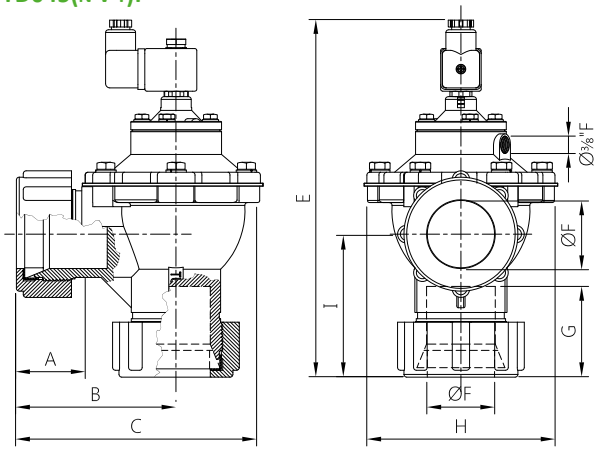

## TD040(N-V-T)P



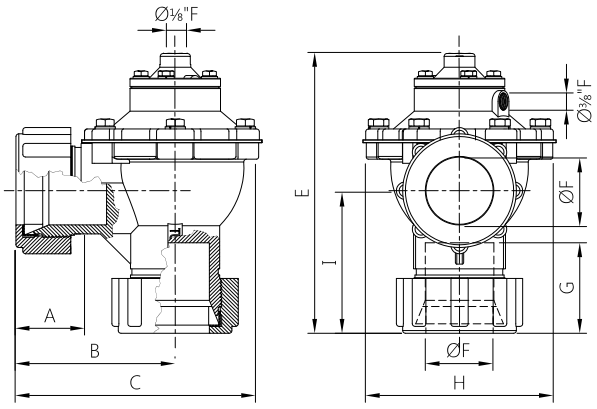

## TD040(N-V-T)M




## TD045(N-V-T)P




## TD045(N-V-T)M




A, B, and C dimensions vary according to the compression of the conical seal

| MODEL | ø L (nom) | A | B | C | E | Ø F | G | H | I | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| TD020(N-V-T)P | ¾ ” | 48 | 90 | 128 | ~189 | 28.5 | 48 | 74 | 80 | 1.1 |
| TD025(N-V-T)P | 1” | 48 | 90 | 128 | ~189 | 35 | 48 | 74 | 80 | 1 |
| TD040(N-V-T)P | 1 ½" | 66 | 114 | 180 | ~264 | 50 | 66 | 140 | 101 | 2.5 |
| TD045(N-V-T)P | 1 ½" | 66 | 114 | 180 | ~260 | 50 | 66 | 140 | 101 | 2.5 |
| | | | | | | | | | | |
| TD020(N-V-T)M | ¾ ” | 48 | 90 | 128 | ~131 | 28.5 | 48 | 74 | 80 | 1.1 |
| TD025(N-V-T)M | 1” | 48 | 90 | 128 | ~131 | 35 | 48 | 74 | 80 | 0.9 |
| TD040(N-V-T)M | 1 ½" | 66 | 114 | 180 | ~206 | 50 | 66 | 140 | 101 | 2.3 |
| TD045(N-V-T)M | 1 ½" | 66 | 114 | 180 | ~204 | 50 | 66 | 140 | 101 | 2.3 |

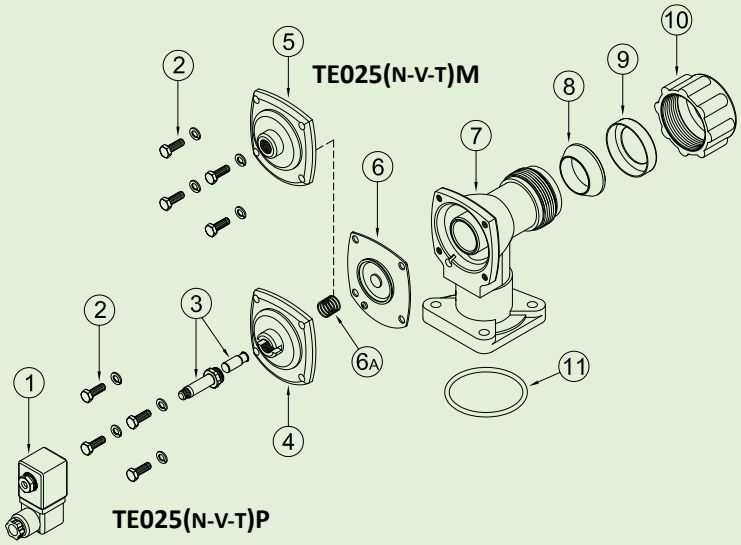
# FLANGED VALVES - TE SERIES - ø 1”- 1 ½”

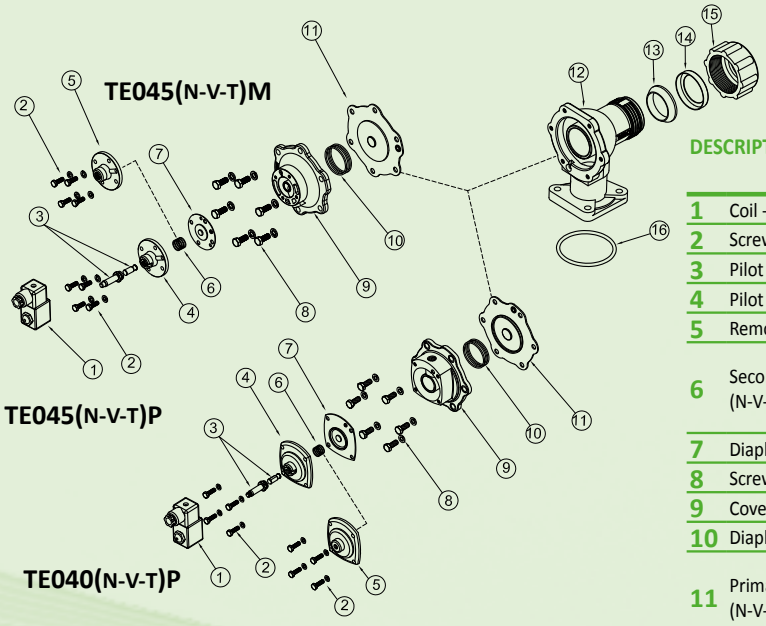
TEP version with built-in pilot
TEM version with remote pilot

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

| | DESCRIPTION | TE025(N-V-T)P / TE025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251752 |
| 5 | Remote cover | 1251776 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Valve body | 1251280 |
| 8 | Conical seal | 3301013 |
| 9 | Retaining ring | 1321010 |
| 10 | Hose clamp high nut | 1281045 |
| 11 | O-R gasket | 3301271 |

V## / V## = 24 Vdc -
24 Vac - 115 Vac - 230 Vac

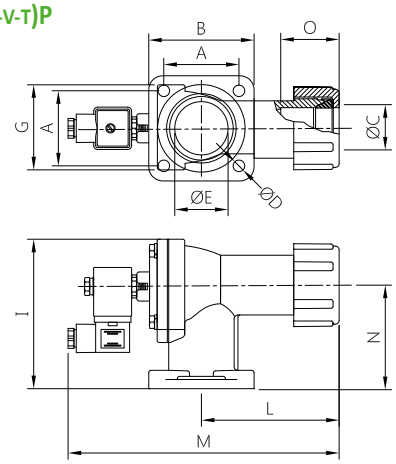


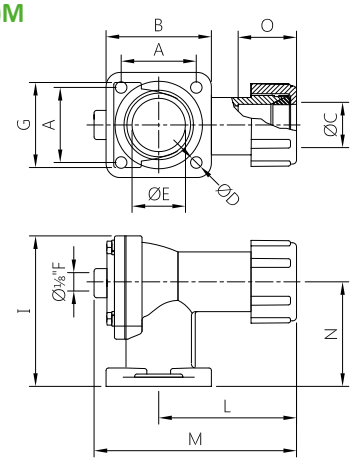

| | DESCRIPTION | TE040(N-V-T)P<br>TE040(N-V-T)M | TE045(N-V-T)P<br>TE045(N-V-T)M |
|---|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 | 1331080 |
| 4 | Pilot cover | 1251750 | 1251715 |
| 5 | Remote cover | 1251770 | 1251745 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 7 | Diaphragm spring | 3241002 | 3241006 |
| 8 | Screws - Washers | TKITVTE08X20X6 | TKITVTE08X20X6 |
| 9 | Cover | 1251620 | 1251640 |
| 10 | Diaphragm spring | 3241024 | 3241024 |
| 11 | Primary diaphragm (N-V-T) | TKISM040N Neoprene<br>TKISM040V Viton<br>TKISM040T Low temperature | TKISM045N Neoprene<br>TKISM045V Viton<br>TKISM045T Low temperature |
| 12 | Valve body | 1251430 | 1251430 |
| 13 | Conical seal | 3301017 | 3301017 |
| 14 | Retaining ring | 1321012 | 1321012 |
| 15 | Hose clamp high nut | 1281050 | 1281050 |
| 16 | O-R gasket | 3301281 | 3301281 |

# TE SERIES - Ø 1” - 1½ - OVERALL DIMENSIONS

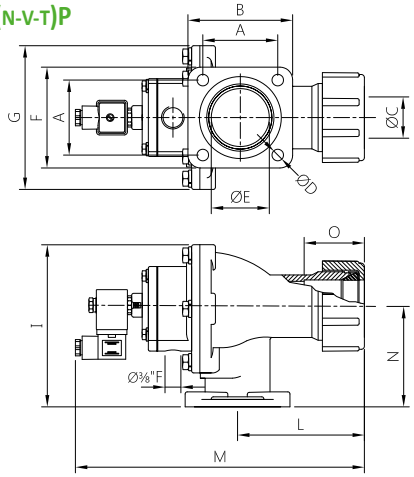
### TE025(N-V-T)P



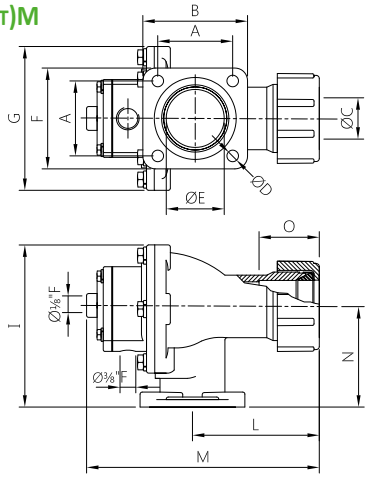

### TE025(N-V-T)M



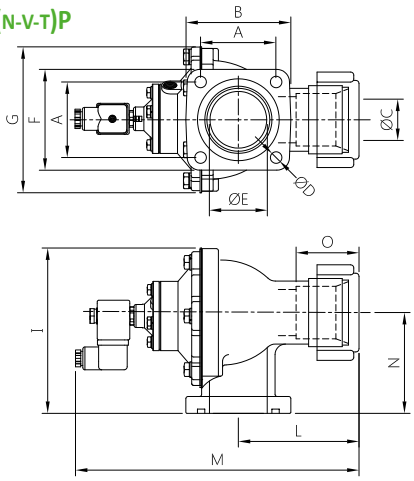

### TE040(N-V-T)P



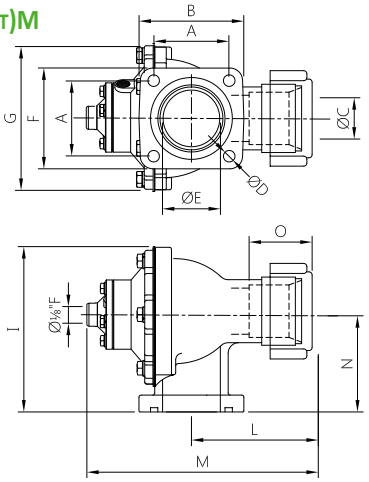

### TE040(N-V-T)M




### TE045(N-V-T)P




### TE045(N-V-T)M




| MODEL | ø L (nom) | A | B | Ø D | F | G | I | L | M | N | Ø E | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TE025(N-V-T)P | 1” | 60 | 82 | 9 | 82 | 74 | 119 | 106 | 217 | 81 | 1 ½" | 1 |
| TE040(N-V-T)P | 1 ½" | 72 | 99 | 11 | 96 | 140 | 160 | 115 | 278 | 96 | 2” | 2.3 |
| TE045(N-V-T)P | 1 ½" | 72 | 99 | 11 | 96 | 140 | 160 | 115 | 270 | 96 | 2” | 2.3 |
| | | | | | | | | | | | | |
| TE025(N-V-T)M | 1” | 60 | 82 | 9 | 82 | 74 | 119 | 106 | 159 | 81 | 1 ½" | 0.9 |
| TE040(N-V-T)M | 1 ½" | 72 | 99 | 11 | 96 | 140 | 160 | 115 | 220 | 96 | 2” | 2.1 |
| TE045(N-V-T)M | 1 ½" | 72 | 99 | 11 | 96 | 140 | 160 | 115 | 214 | 96 | 2” | 2.1 |

# FLANGED VALVES - TE SERIES - 1 ½”

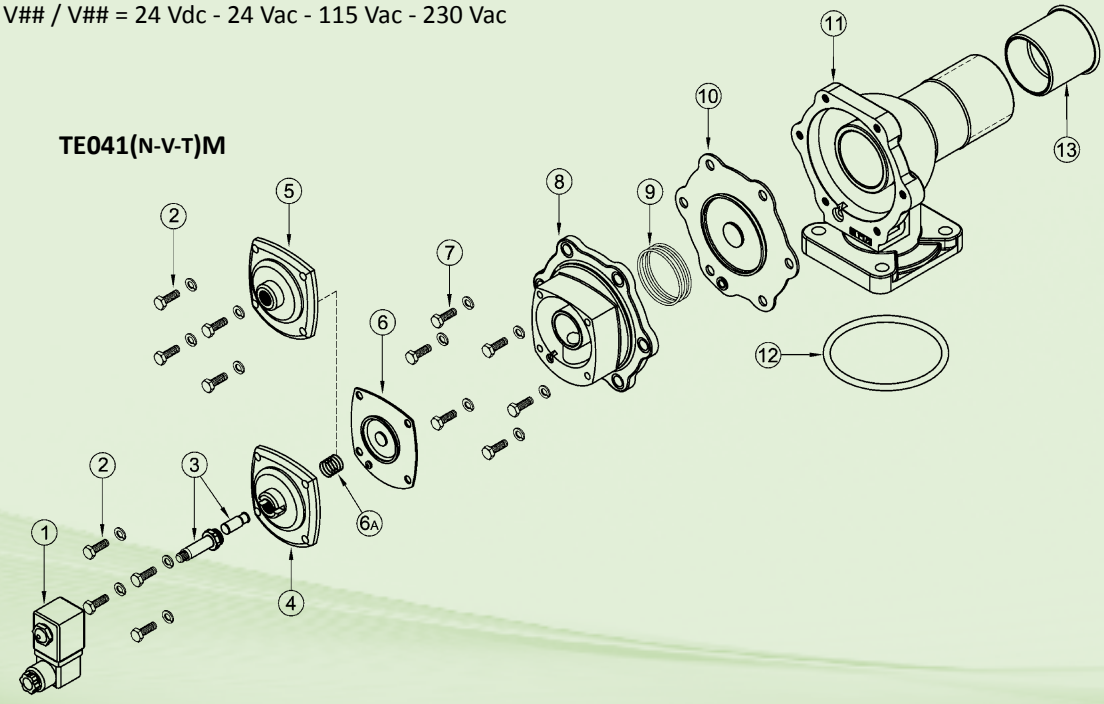
TEP version with built-in pilot
TEM version with remote pilot

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

| | DESCRIPTION | TE041(N-V-T)P / TE041(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 6a | Diaphragm spring | 3241002 |
| 7 | Screws - Washers | TKITVTE08X20X6 |
| 8 | Cover | 1251620 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM040N Neoprene<br>TKISM040V Viton<br>TKISM040T Low temperature |
| 11 | Valve body | 1251425 |
| 12 | O-R gasket | 3301281 |
| 13 | Rubber sleeve | 3361210 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

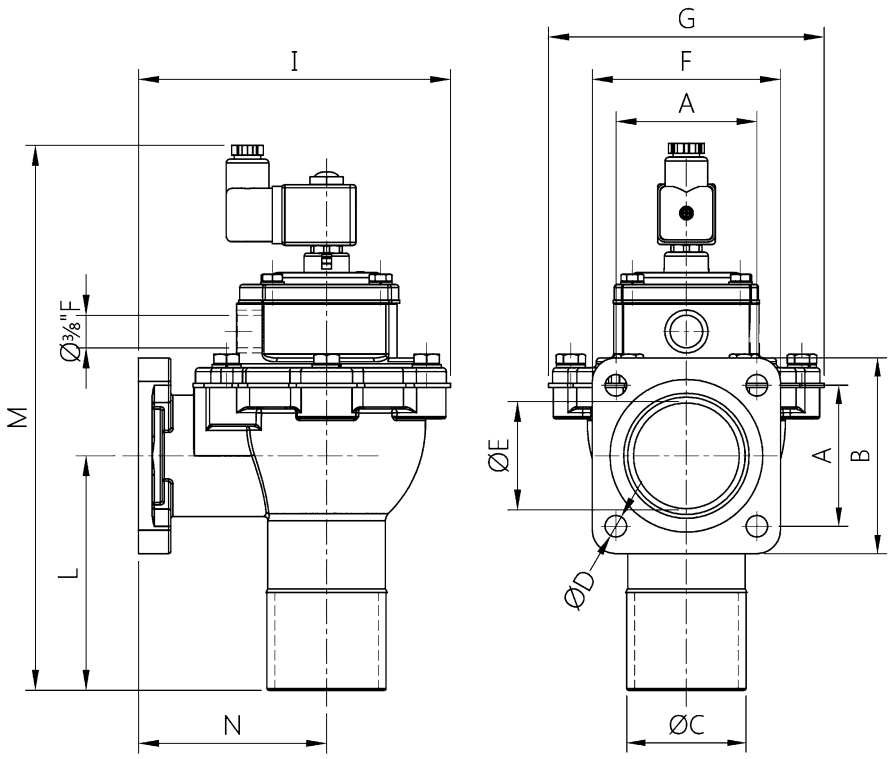
**TE041(N-V-T)M**



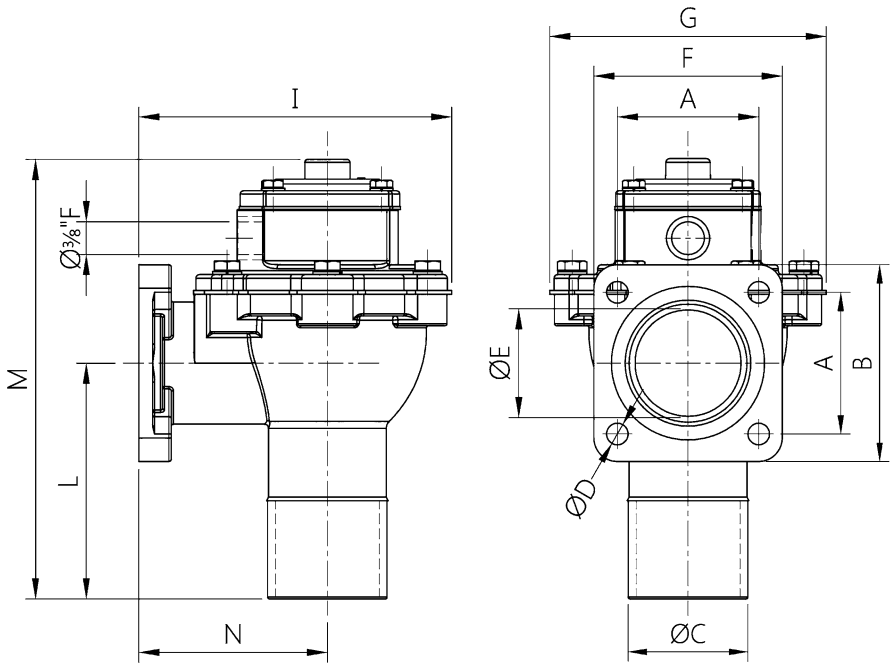

**TE041(N-V-T)P**

# TE SERIES - Ø 1½ - OVERALL DIMENSIONS

## TE041(N-V-T)P




## TE041(N-V-T)M




| MODEL | ø L (nom) | A | B | Ø C | Ø D | F | G | I | L | M | N | Ø E | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TE041(N-V-T)P | 1 ½" | 72 | 100 | 61 | 11 | 96 | 140 | 160 | 120 | 279 | 96 | 1½" | 2.3 |
| TE041(N-V-T)M | 1 ½" | 72 | 100 | 61 | 11 | 96 | 140 | 160 | 120 | 224 | 96 | 1½" | 2.1 |

# VALVES FOR FLAT SURFACES - TS SERIES - Ø 1”

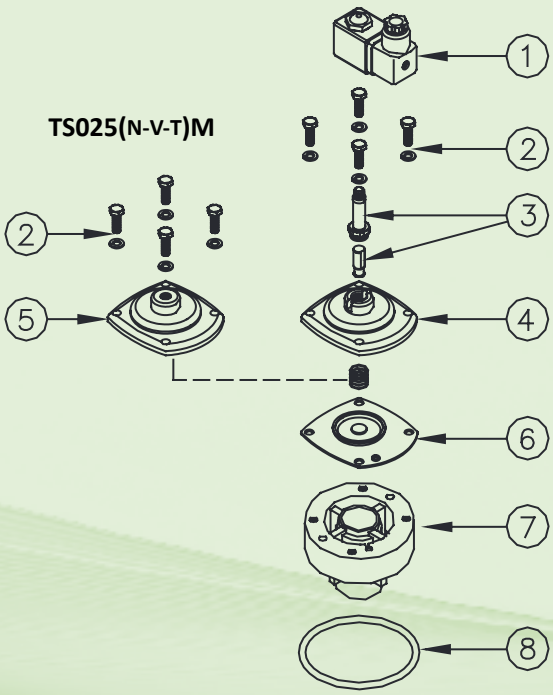
| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

| DESCRIPTION | | TS025(N-V-T)P / TS025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Valve body | 1251290 |
| 8 | O-R gasket | 3301285 |

TSP version with built-in pilot / TSM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

**TS025(N-V-T)P**

**TS025(N-V-T)M**

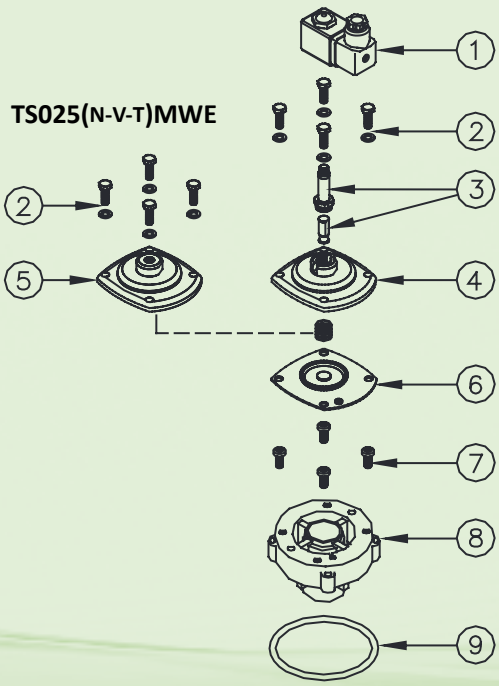



| DESCRIPTION | | TS025(N-V-T)PWE / TS025(N-V-T)MWE |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Screws - Washers | TKITVTE06X16X4 |
| 8 | Valve body | 1251300 |
| 9 | O-R gasket | 3301285 |

TSP version with built-in pilot / TSM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

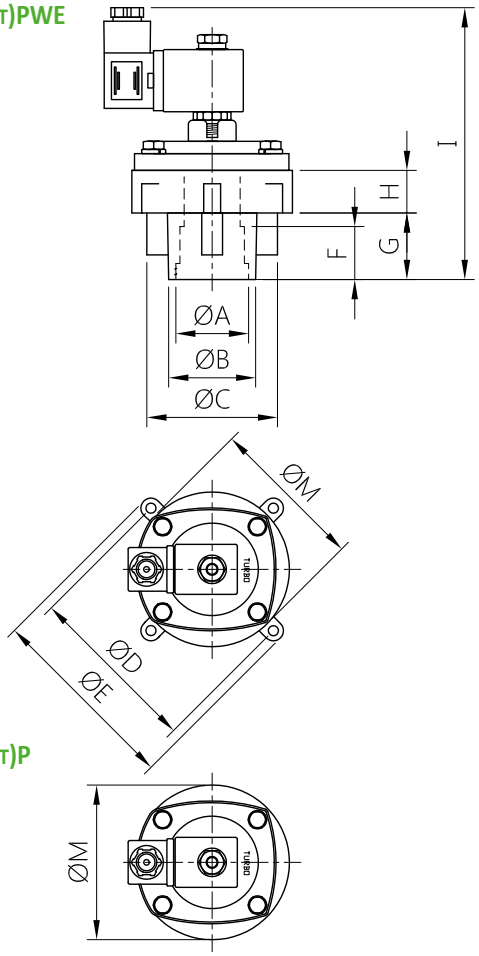
**TS025(N-V-T)PWE**

**TS025(N-V-T)MWE**



# TS SERIES - Ø 1”- OVERALL DIMENSIONS

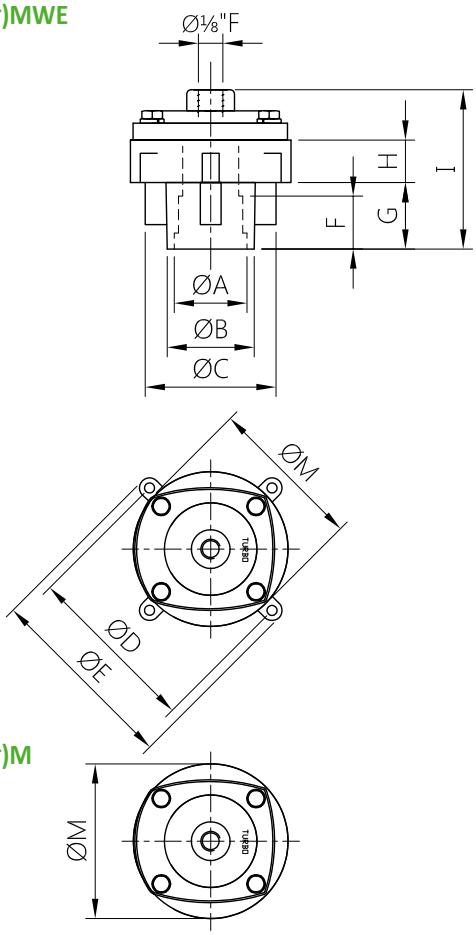
**TS025(N-V-T)PWE**




**TS025(N-V-T)P**

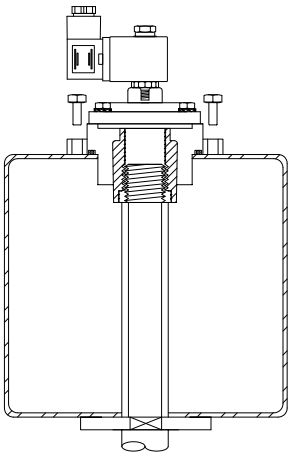


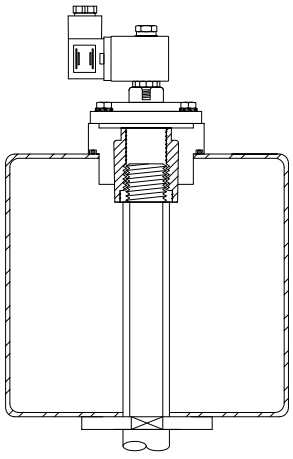

**TS025(N-V-T)MWE**




**TS025(N-V-T)M**





| MODEL | ØA | ØB | ØC | Ø D | ØE | ØM | F | G | H | I | L | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TS025(N-V-T)PWE | 1” | 41.4 | 62.2 | 104 | 116 | 92 | 25 | 31.5 | 20.2 | 136 | 6.2 | 0.7 |
| TS025(N-V-T)P | 1” | 41.4 | 62.2 | - | - | 92 | 25 | 31.5 | 20.2 | 136 | 6.2 | 0.7 |
| TS025(N-V-T)MWE | 1” | 41.4 | 62.2 | 104 | 116 | 92 | 25 | 31.5 | 20.2 | 78 | 6.2 | 0.5 |
| TS025(N-V-T)M | 1” | 41.4 | 62.2 | - | - | 92 | 25 | 31.5 | 20.2 | 78 | 6.2 | 0.5 |

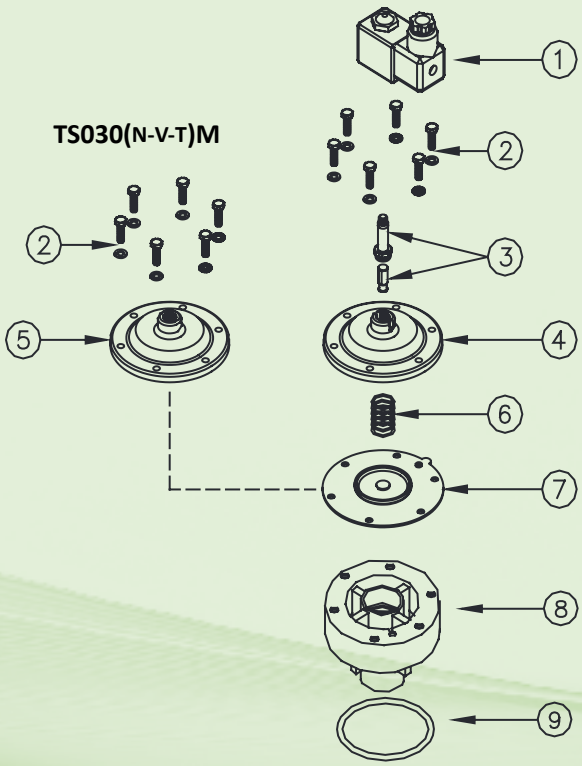
# VALVES FOR FLAT SURFACES - TS SERIES - Ø 1½”

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

| DESCRIPTION | | TS030(N-V-T)P / TS030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6 | Diaphragm spring | 3241018 |
| 7 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |
| 8 | Valve body | 1251350 |
| 9 | O-R gasket | 3301276 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

**TS030(N-V-T)P**



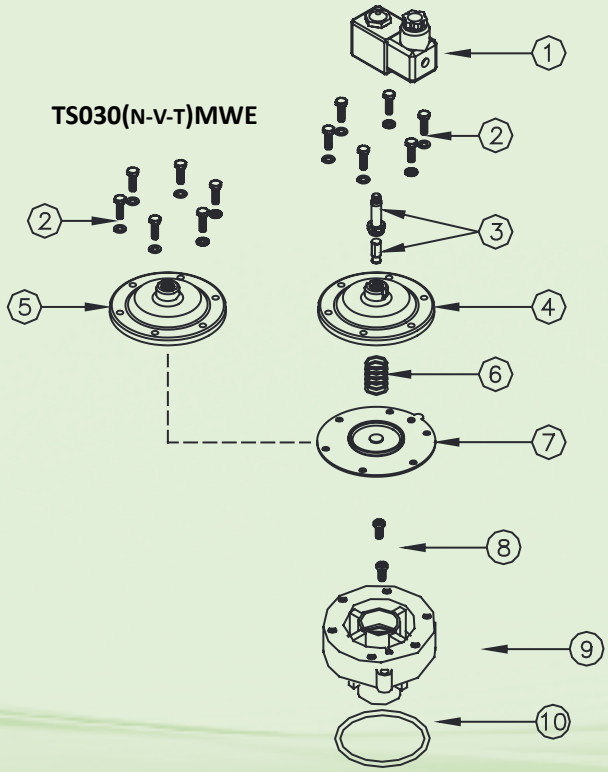

**TS030(N-V-T)M**




| DESCRIPTION | | TS030(N-V-T)PWE / TS030(N-V-T)MWE |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6 | Diaphragm spring | 3241018 |
| 7 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X2 |
| 9 | Valve body | 1251370 |
| 10 | O-R gasket | 3301276 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

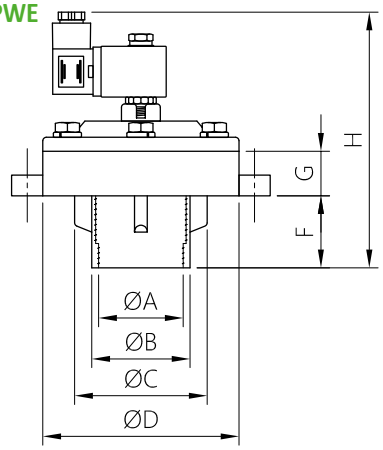
**TS030(N-V-T)PWE**

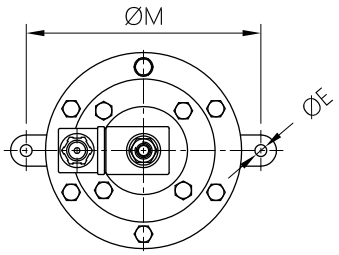



**TS030(N-V-T)MWE**

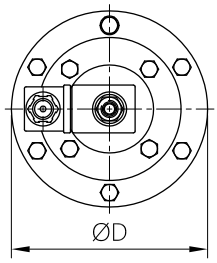
# TS SERIES - Ø 1½"- OVERALL DIMENSIONS

**TS030(N-V-T)PWE**

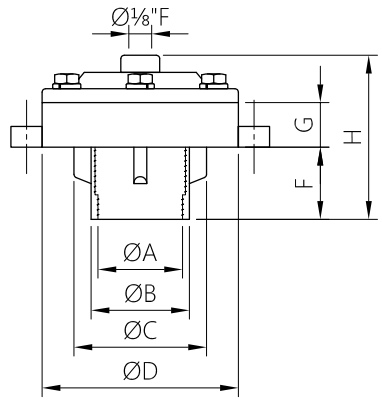


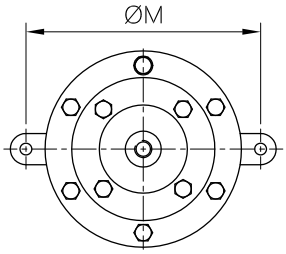




**TS030(N-V-T)P**

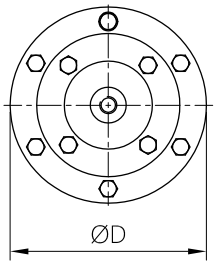


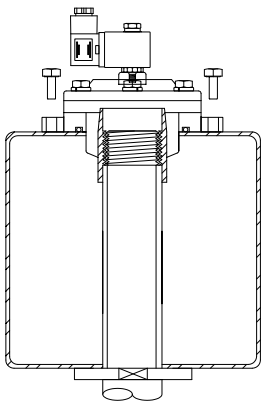

**TS030(N-V-T)MWE**

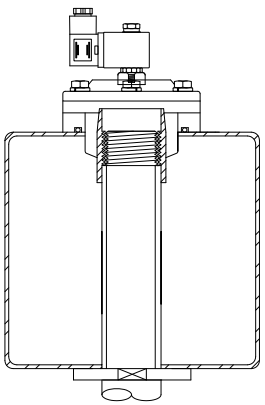



**TS030(N-V-T)M**





| MODEL | øA | øB | øC | Ø D | øE | F | G | H | M | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| TS030(N-V-T)PWE | 1 ½" | 57 | 80.5 | 114 | 9 | 42 | 26 | 158 | - | 1.4 |
| TS030(N-V-T)P | 1 ½" | 57 | 80.5 | 114 | 9 | 42 | 26 | 158 | 130 | 1.4 |
| TS030(N-V-T)MWE | 1 ½" | 57 | 80.5 | 114 | 9 | 42 | 26 | 125 | - | 1.2 |
| TS030(N-V-T)M | 1 ½" | 57 | 80.5 | 114 | 9 | 42 | 26 | 125 | 130 | 1.2 |

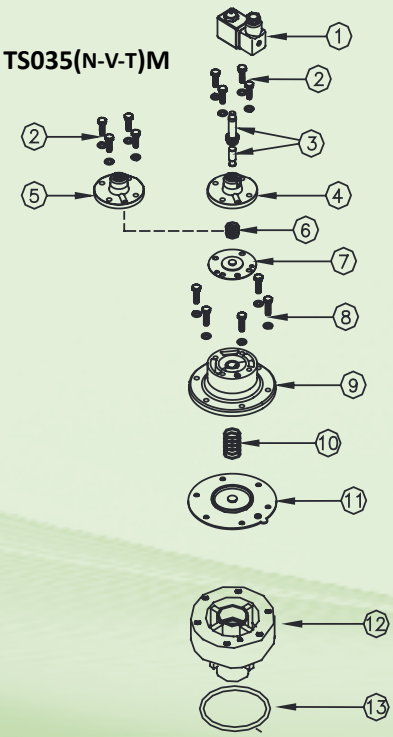
# VALVES FOR FLAT SURFACES - TS SERIES - Ø 1½”

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

| DESCRIPTION | | TS035(N-V-T)P / TS035(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary Diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |
| 12 | Valve body | 1251350 |
| 13 | O-R gasket | 3301276 |

**TS035(N-V-T)P**

**TS035(N-V-T)M**

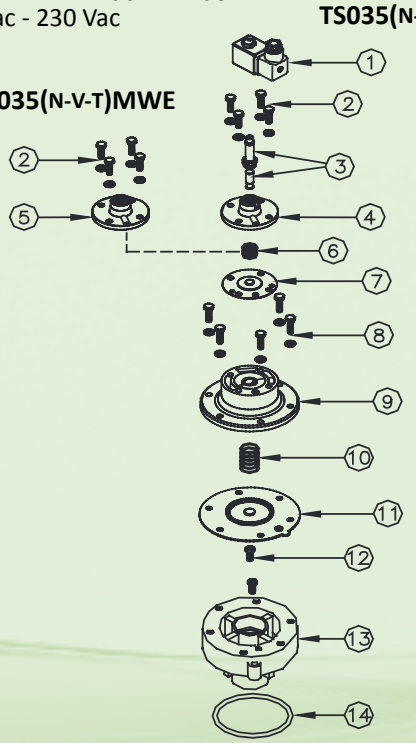



| DESCRIPTION | | TS035(N-V-T)PWE / TS035(N-V-T)MWE |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X18X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary Diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |
| 12 | Screws - Washers | TKITVTE08X20X2 |
| 13 | Valve body | 1251370 |
| 14 | O-R gasket | 3301276 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

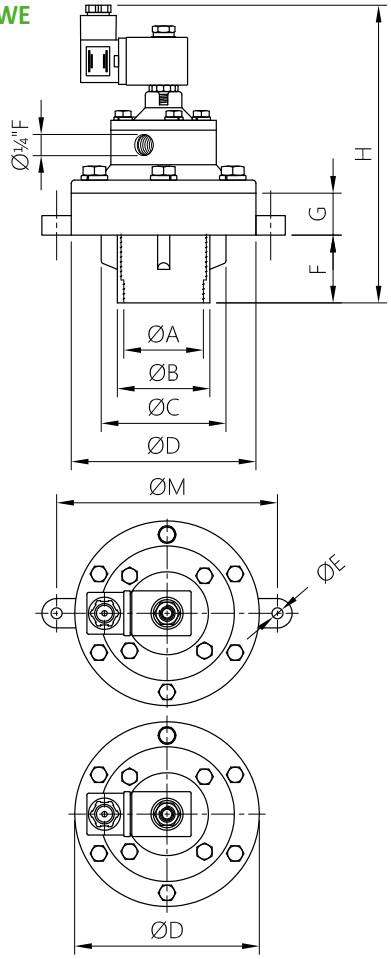
**TS035(N-V-T)PWE**

**TS035(N-V-T)MWE**



# TS SERIES - Ø 1½"- OVERALL DIMENSIONS

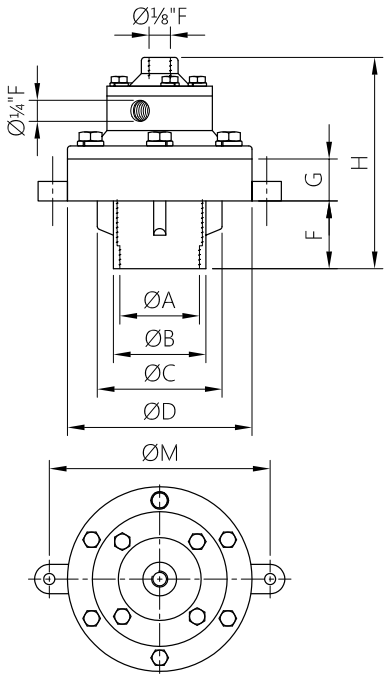
**TS035(N-V-T)PWE**



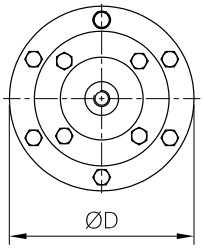

**TS035(N-V-T)P**

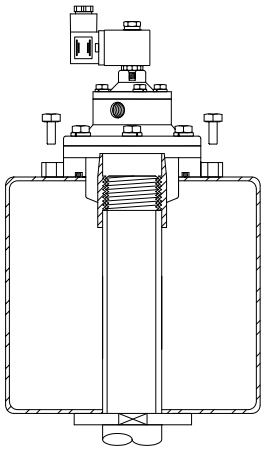


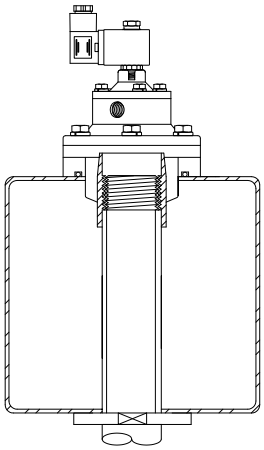

**TS035(N-V-T)MWE**




**TS035(N-V-T)M**





| MODEL | øA | øB | øC | Ø D | øE | F | G | H | M | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| TS035(N-V-T)PWE | 1 ½" | 57 | 80.5 | 114 | 9 | 42 | 26 | 190 | - | 1.6 |
| TS035(N-V-T)P | 1 ½" | 57 | 80.5 | 114 | 9 | 42 | 26 | 190 | 130 | 1.6 |
| TS035(N-V-T)MWE | 1 ½" | 57 | 80.5 | 114 | 9 | 42 | 26 | 135 | - | 1.4 |
| TS035(N-V-T)M | 1 ½" | 57 | 80.5 | 114 | 9 | 42 | 26 | 135 | 130 | 1.4 |

# VALVES FOR FLAT SURFACES -TS SERIES - ø 2”- 2½” - 3”- 4”

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

| DESCRIPTION | | TS050(N-V-T)P / TS050(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251650 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM050N Neoprene<br>TKISM050V Viton<br>TKISM050T Low temperature |
| 11 | Valve body | 1251460 |
| 12 | O-R gasket | 3301203 |

TSP version with built-in pilot / TSM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

| DESCRIPTION | | TS075(N-V-T)PIN / TS075(N-V-T)MIN |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251650 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM075N Neoprene<br>TKISM075V Viton<br>TKISM075T Low temperature |
| 11 | Valve body | 1251540 |
| 12 | O-R gasket | 3301209 |

TSP version with built-in pilot / TSM version with remote pilot

| DESCRIPTION | | TS050(N-V-T)PIN / TS050(N-V-T)MIN |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251660 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM065N Neoprene<br>TKISM065V Viton<br>TKISM065T Low temperature |
| 11 | Valve body | 1251520 |
| 12 | O-R gasket | 3301209 |

TSP version with built-in pilot / TSM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

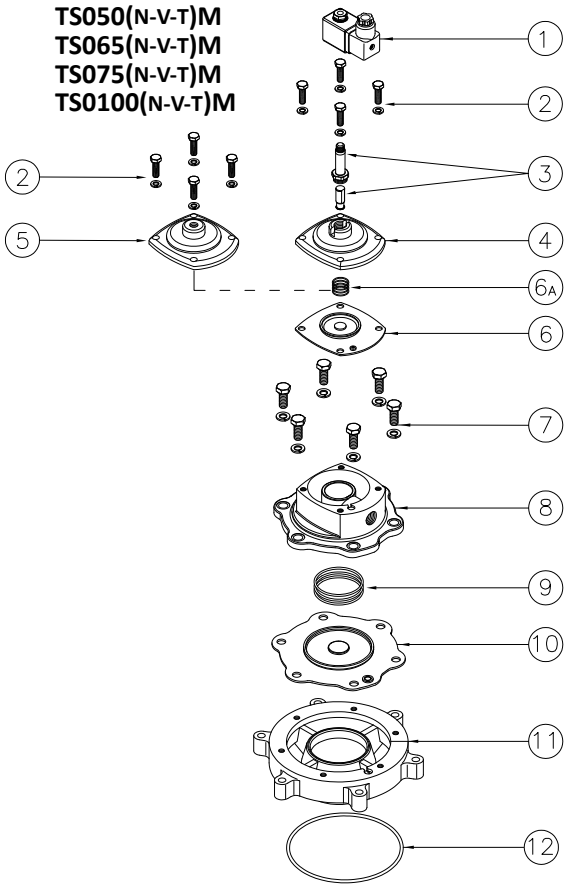
| DESCRIPTION | | TS0100(N-V-T)PIN / TS0100(N-V-T)MIN |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Secondary diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Screws - Washers | TKITVTE10X25X6 |
| 8 | Cover | 1251660 |
| 9 | Diaphragm spring | 3241024 |
| 10 | Primary Diaphragm (N-V-T) | TKISM0100N Neoprene<br>TKISM0100V Viton<br>TKISM0100T Low temperature |
| 11 | Valve body | 1251580 |
| 12 | O-R gasket | 3301209 |

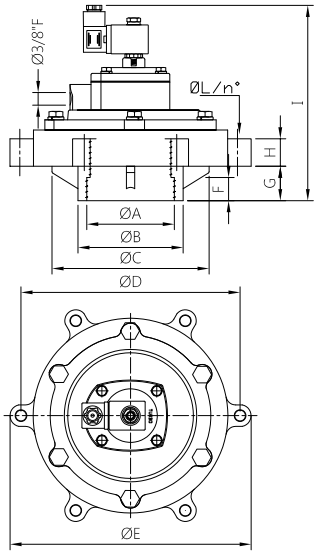
TSP version with built-in pilot / TSM version with remote pilot

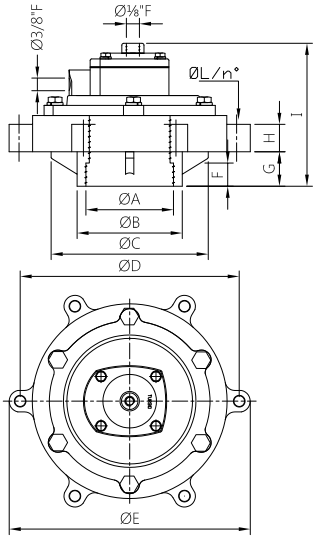
# TS SERIE - Ø 2”- 2½” - 3” - 4” - OVERALL DIMENSIONS

**TS050(N-V-T)P**
**TS065(N-V-T)P**
**TS075(N-V-T)P**
**TS0100(N-V-T)P**

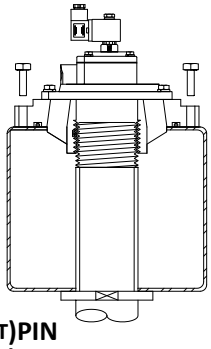
**TS050(N-V-T)M**
**TS065(N-V-T)M**
**TS075(N-V-T)M**
**TS0100(N-V-T)M**



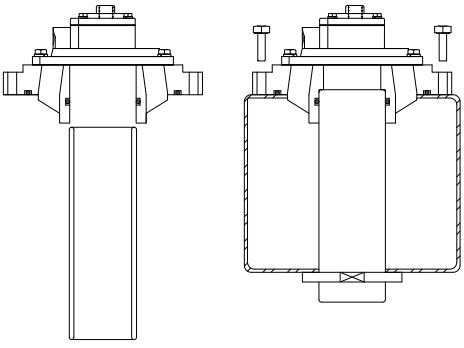




**Assembly**
**TS050(N-V-T)P**
**TS050(N-V-T)M**



**Assembly**
**TS065(N-V-T)MIN** **TS065(N-V-T)PIN**
**TS075(N-V-T)MIN** **TS075(N-V-T)PIN**
**TS0100(N-V-T)MIN** **TS0100(N-V-T)PIN**



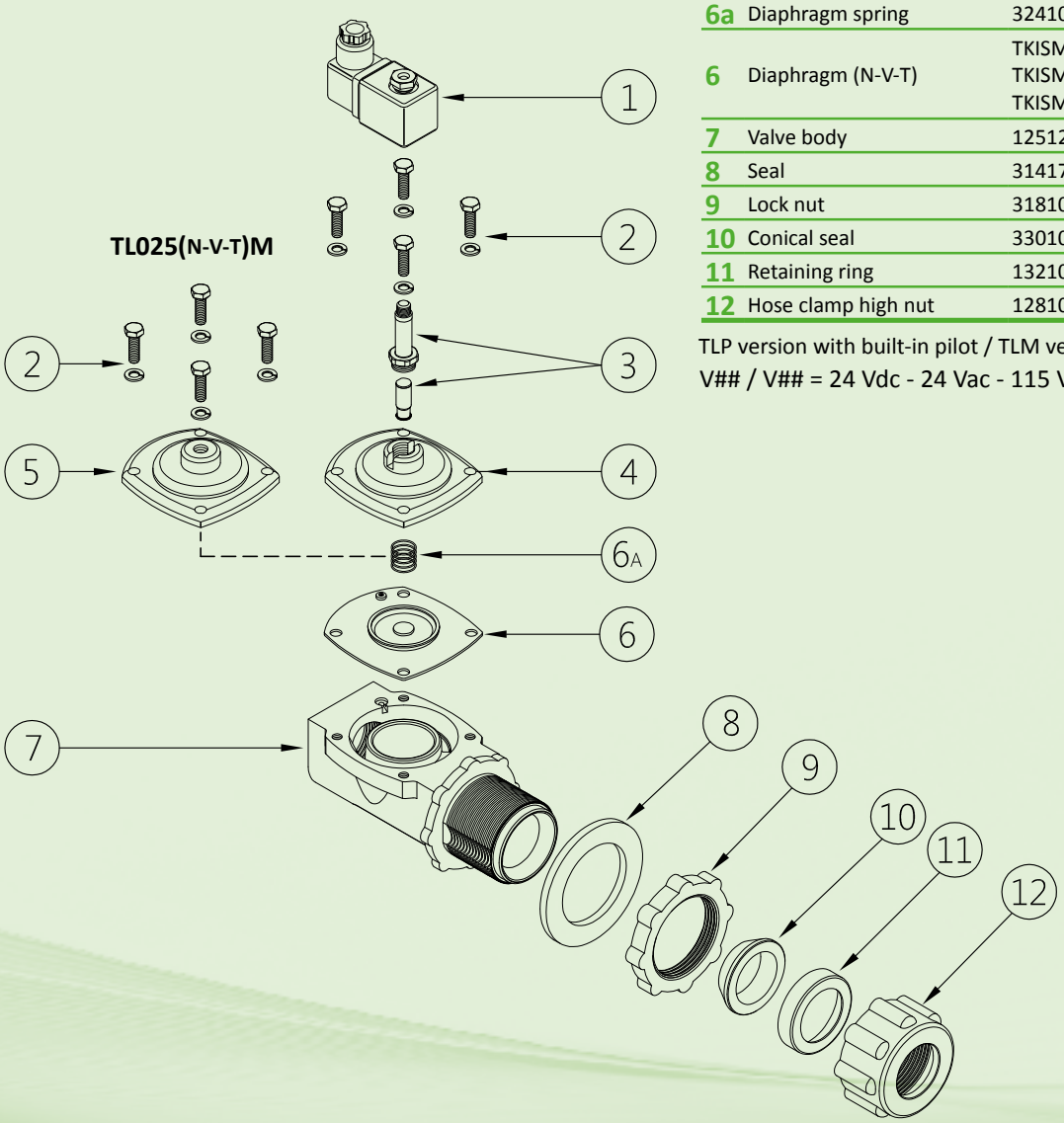
| MODEL | øA | øB | øC | Ø D | øE | F | G | H | I | L | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TS050(N-V-T)P | 2” | 83 | 126 | 175 | 195 | 39 | 60 | 20 | 211 | 11 | 2.4 |
| TS065(N-V-T)PIN | 2 ½" | 107.5 | 161 | 225 | 247 | 44 | 35.5 | 27 | 205 | 11 | 3.9 |
| TS075(N-V-T)PIN | 3” | 107.5 | 161 | 225 | 247 | 50 | 35.5 | 27 | 205 | 11 | 3.7 |
| TS0100(N-V-T)PIN | 4” | 119.5 | 161 | 225 | 247 | 44 | 35.5 | 27 | 205 | 11 | 3.8 |
| | | | | | | | | | | | |
| TS050(N-V-T)M | 2” | 83 | 126 | 175 | 195 | 39 | 60 | 20 | 153 | 11 | 2.2 |
| TS065(N-V-T)MIN | 2 ½" | 107.5 | 161 | 225 | 247 | 44 | 35.5 | 27 | 147 | 11 | 3.7 |
| TS075(N-V-T)MIN | 3” | 107.5 | 161 | 225 | 247 | 50 | 35.5 | 27 | 147 | 11 | 3.5 |
| TS0100(N-V-T)MIN | 4” | 119.5 | 161 | 225 | 247 | 44 | 35.5 | 27 | 148 | 11 | 3.6 |

# STRAIGHT THROUGH DIAPHRAGM VALVES - TL SERIES - Ø 1”


| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

**TL025(N-V-T)P**

**TL025(N-V-T)M**




| DESCRIPTION | | TL025(N-V-T)P / TL025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Valve body | 1251250 |
| 8 | Seal | 3141702 |
| 9 | Lock nut | 3181036 |
| 10 | Conical seal | 3301013 |
| 11 | Retaining ring | 1321010 |
| 12 | Hose clamp high nut | 1281045 |

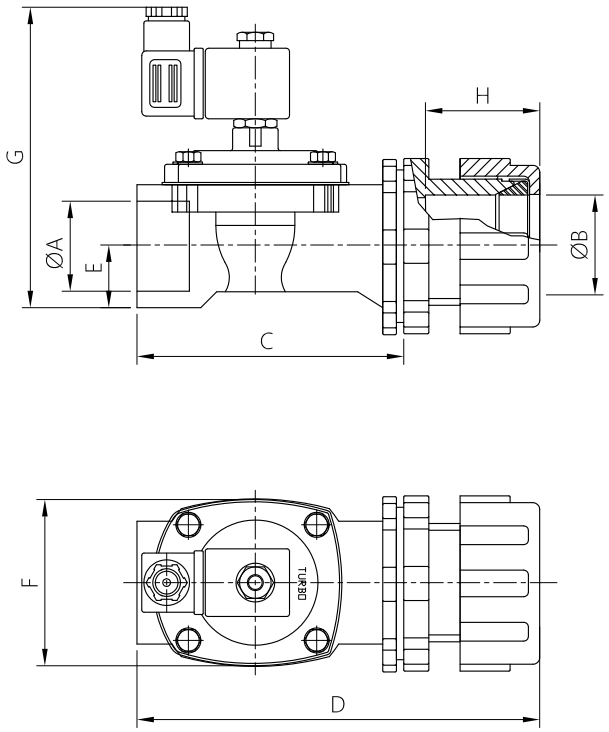
TLP version with built-in pilot / TLM version with remote pilot

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

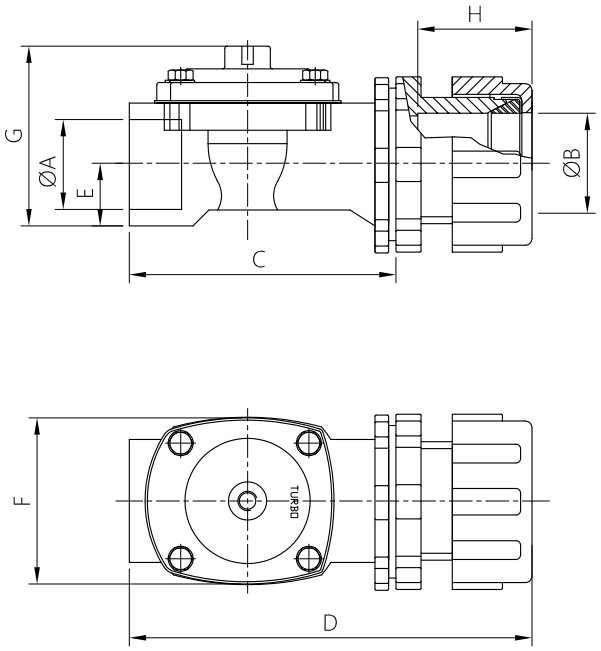
# TL SERIES - Ø 1”- OVERALL DIMENSIONS

## TLP/TLM OUTLET WITH QUICK CONNECTION

### TL025(N-V-T)P



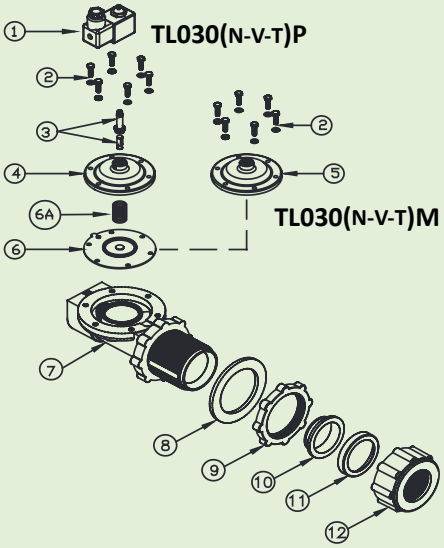

### TL025(N-V-T)M




| MODEL | ø A | ø B | ø C | ø D | ø E | F | G | M | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|
| TL025(N-V-T)P | 1 ¼" | 1” | 114 | 176 | 27 | 74 | 132 | 49.5 | 1.2 |
| TL025(N-V-T)M | 1 ¼" | 1” | 114 | 176 | 27 | 79 | 74 | 49.5 | 1 |

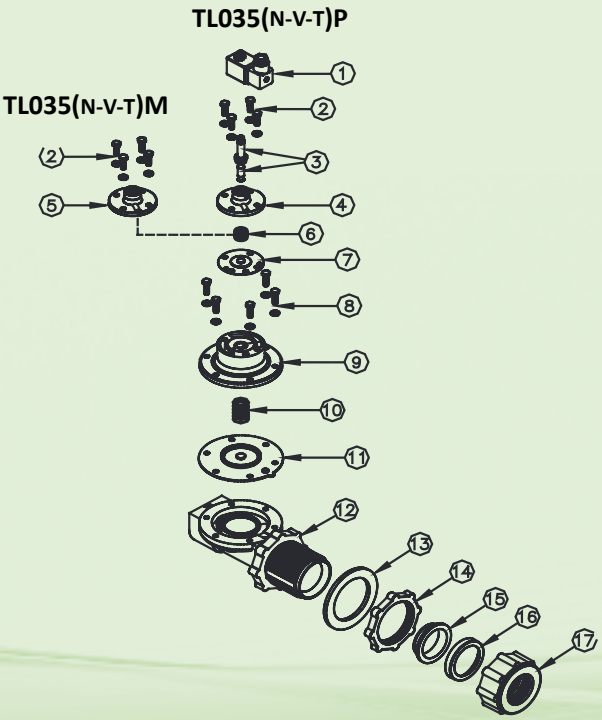
# STRAIGHT THROUGH DIAPHRAGM VALVES - TL SERIES - Ø 1½”


| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |




| DESCRIPTION | | TL030(N-V-T)P / TL030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6a | Diaphragm spring | 3241018 |
| 6 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |
| 7 | Valve body | 1251330 |
| 8 | Seal | 3141706 |
| 9 | Lock nut | 3181032 |
| 10 | Conical seal | 3301017 |
| 11 | Retaining ring | 1321012 |
| 12 | Hose clamp high nut | 1281050 |

TLP version with built-in pilot / TLM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

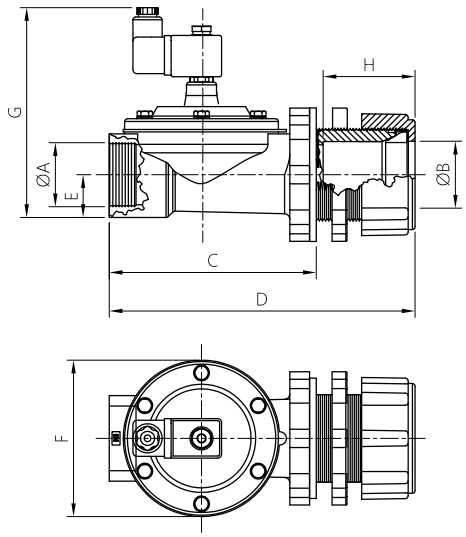



| DESCRIPTION | | TL035(N-V-T)PWE / TL035(N-V-T)MWE |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary Diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |
| 12 | Valve body | 1251330 |
| 13 | Seal | 3141706 |
| 14 | Lock nut | 3181032 |
| 15 | Conical seal | 3301017 |
| 16 | Retaining ring | 1321012 |
| 17 | Hose clamp high nut | 1281050 |

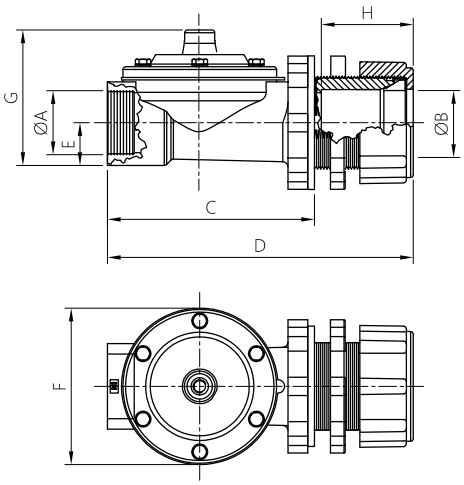
TLP version with built-in pilot / TLM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

# TL SERIES - Ø 1½"- OVERALL DIMENSIONS

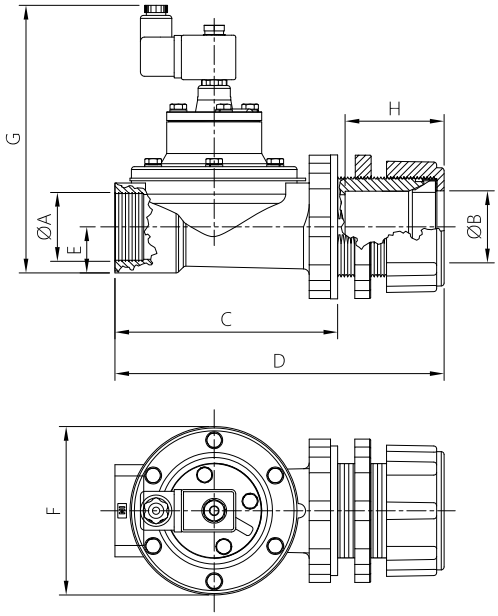
## TL030(N-V-T)P



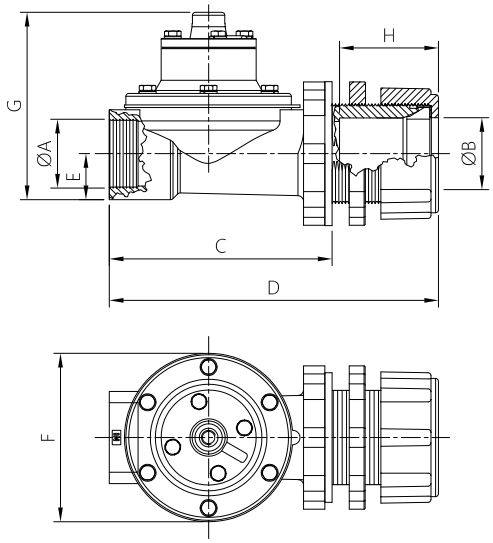

## TL030(N-V-T)M




## TL035(N-V-T)P




## TL035(N-V-T)M



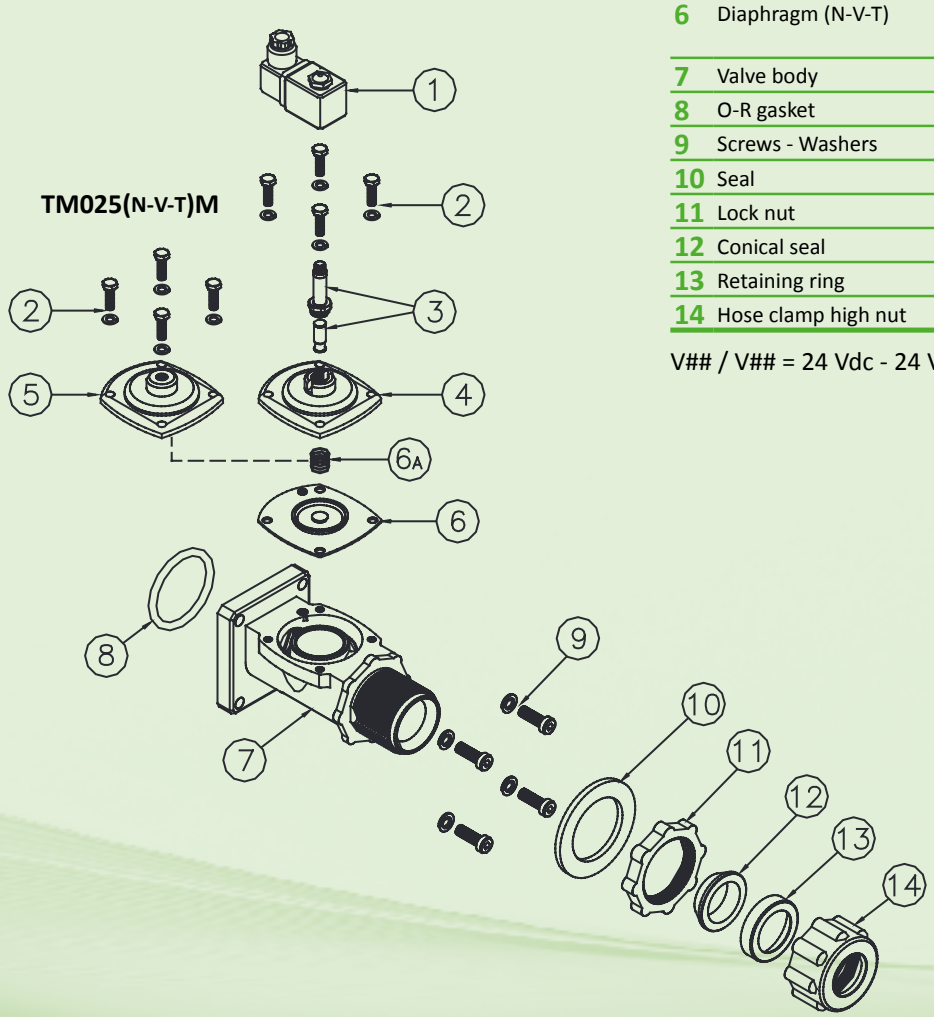

| MODEL | øA | øB | C | D | E | F | G | H | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|
| TL030(N-V-T)P | 2” | 1 ½" | 153 | 228 | 36 | 115 | 148 | 67.5 | 2.1 |
| TL030(N-V-T)M | 2” | 1 ½" | 153 | 228 | 36 | 115 | 93 | 67.5 | 1.9 |
| | | | | | | | | | |
| TL035(N-V-T)P | 2” | 1 ½" | 153 | 228 | 36 | 115 | 186 | 67.5 | 2.3 |
| TL035(N-V-T)M | 2” | 1 ½" | 153 | 228 | 36 | 115 | 131 | 67.5 | 2.1 |

# FLANGED STRAIGHT THROUGH DIAPHRAGM VALVES - TM SERIES - Ø 1”


| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

**TM025(N-V-T)P**

**TM025(N-V-T)M**

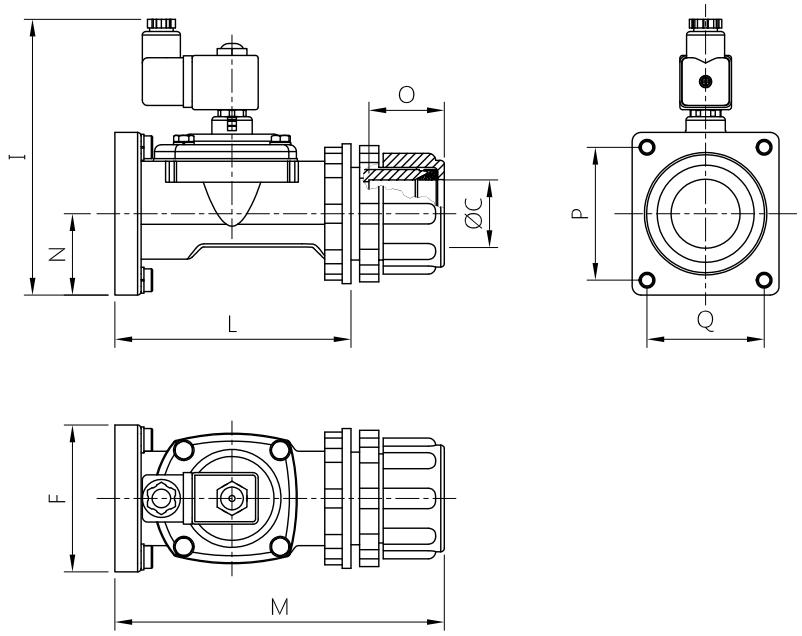



| DESCRIPTION | | TM025(N-V-T)P / TM025(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251750 |
| 5 | Remote cover | 1251770 |
| 6a | Diaphragm spring | 3241002 |
| 6 | Diaphragm (N-V-T) | TKISM025N Neoprene<br>TKISM025V Viton<br>TKISM025T Low temperature |
| 7 | Valve body | 1251180 |
| 8 | O-R gasket | 3301271 |
| 9 | Screws - Washers | TKITVTE08X25X4 |
| 10 | Seal | 3141702 |
| 11 | Lock nut | 3181036 |
| 12 | Conical seal | 3301013 |
| 13 | Retaining ring | 1321010 |
| 14 | Hose clamp high nut | 1281045 |

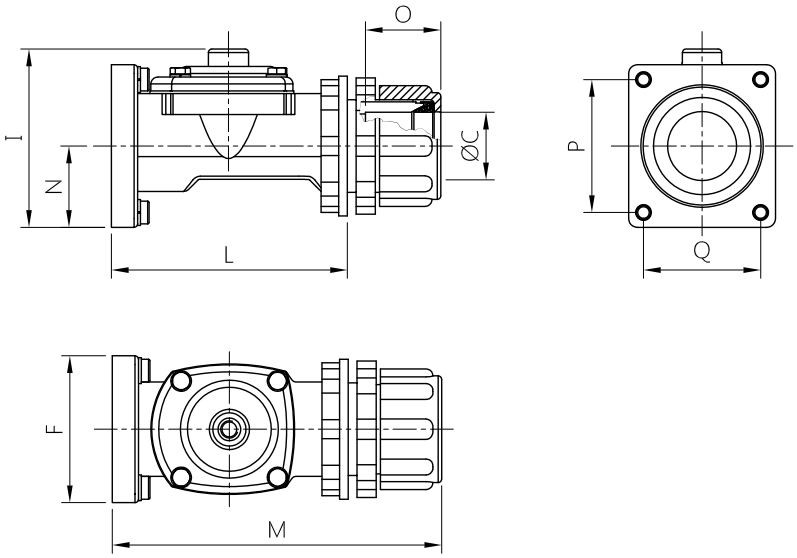
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

# TM SERIES - Ø 1”- OVERALL DIMENSIONS

## TM025(N-V-T)P




## TM025(N-V-T)M



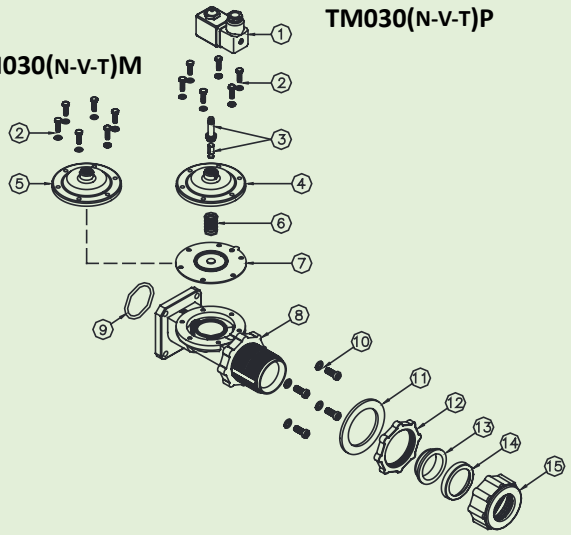

| MODEL | ø C | L | M | N | F | I | O | P | Q |
|---|---|---|---|---|---|---|---|---|---|
| TM025(N-V-T)P | 1” | 132 | 185 | 27 | 84 | 158 | 48.5 | 76 | 67 |
| TM025(N-V-T)M | 1” | 132 | 185 | 27 | 84 | 102 | 48.5 | 76 | 67 |

# FLANGED STRAIGHT THROUGH DIAPHRAGM VALVES - TM SERIES - Ø 1½”


| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating temperature | Neoprene diaphragm -20°C +80°C<br>Viton diaphragm -20°C +200°C<br>Low T. diaphragm -40°C; +80°C |
| Operating pressure | between 0.5 and 7.5 bar |
| Body and cover | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Connector | PG 9 EN175301-803 |
| Connector + coil protection | IP65 EN60529 |
| Standard voltage | 24V/50-60Hz (±10%) 19VA |
| | 115V/50-60Hz (±10%) 19VA |
| | 230V/50-60Hz (±10%) 19VA |
| | 24VDC (± 10%) 18 Watt |

**TM030(N-V-T)P**

**TM030(N-V-T)M**



| DESCRIPTION | | TM030(N-V-T)P / TM030(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X6 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251802 |
| 5 | Remote cover | 1251805 |
| 6 | Diaphragm spring | 3241018 |
| 7 | Diaphragm (N-V-T) | TKISM030N Neoprene<br>TKISM030V Viton<br>TKISM030T Low temperature |
| 8 | Valve body | 1251320 |
| 9 | O-R gasket | 3301281 |
| 10 | Screws - Washers | TKITVTE10X25X4 |
| 11 | Seal | 3141706 |
| 12 | Lock nut | 3181032 |
| 13 | Conical seal | 3301017 |
| 14 | Retaining ring | 1321012 |
| 15 | Hose clamp high nut | 1281050 |

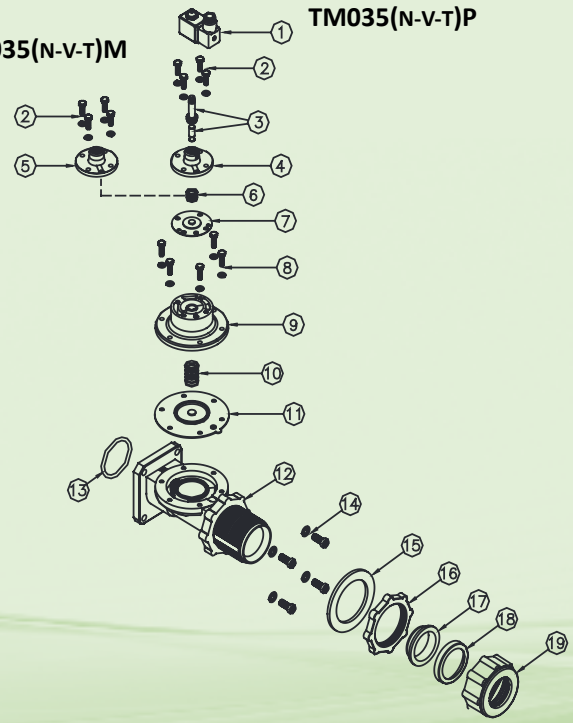
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

| DESCRIPTION | | TM035(N-V-T)P / TM035(N-V-T)M |
|---|---|---|
| 1 | Coil - Connector | BH10 V## / V## |
| 2 | Screws - Washers | TKITVTE06X20X4 |
| 3 | Pilot unit | 1331080 |
| 4 | Pilot cover | 1251720 |
| 5 | Remote cover | 1251740 |
| 6 | Diaphragm spring | 3241006 |
| 7 | Secondary diaphragm (N-V-T) | TKISM010N Neoprene<br>TKISM010V Viton<br>TKISM010T Low temperature |
| 8 | Screws - Washers | TKITVTE06X20X6 |
| 9 | Cover | 1251810 |
| 10 | Diaphragm spring | 3241018 |
| 11 | Primary Diaphragm (N-V-T) | TKISM035N Neoprene<br>TKISM035V Viton<br>TKISM035T Low temperature |
| 12 | Valve body | 1251320 |
| 13 | O-R gasket | 3301281 |
| 14 | Screws - Washers | TKITVTE10X25X4 |
| 15 | Seal | 3141706 |
| 16 | Lock nut | 3181032 |
| 17 | Conical seal | 3301017 |
| 18 | Retaining ring | 1321012 |
| 19 | Hose clamp high nut | 1281050 |

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

**TM035(N-V-T)P**

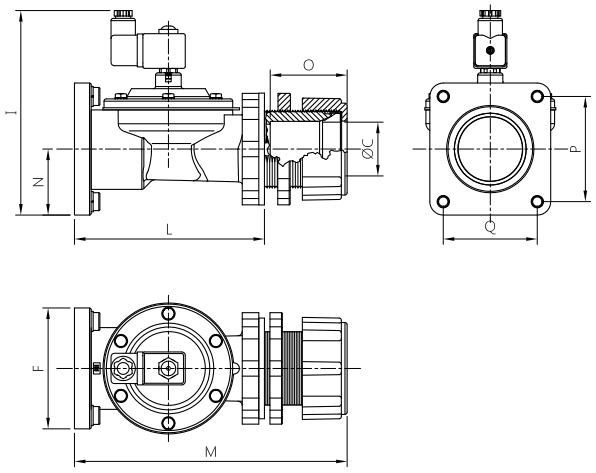
**TM035(N-V-T)M**



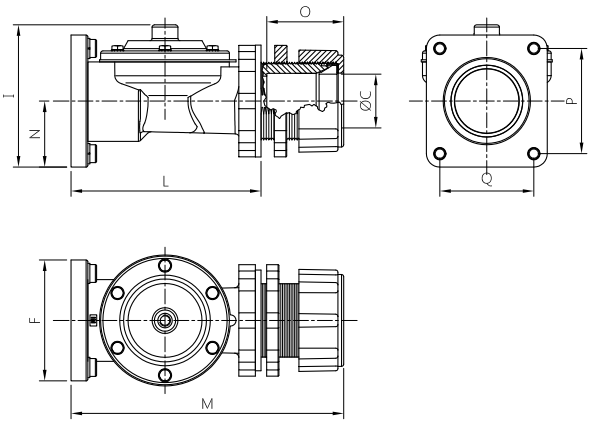
# TM SERIES - Ø 1½”- OVERALL DIMENSIONS



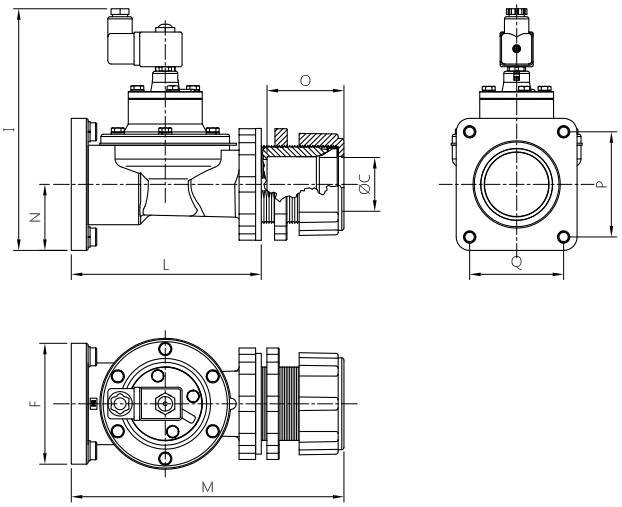
### TM030(N-V-T)P



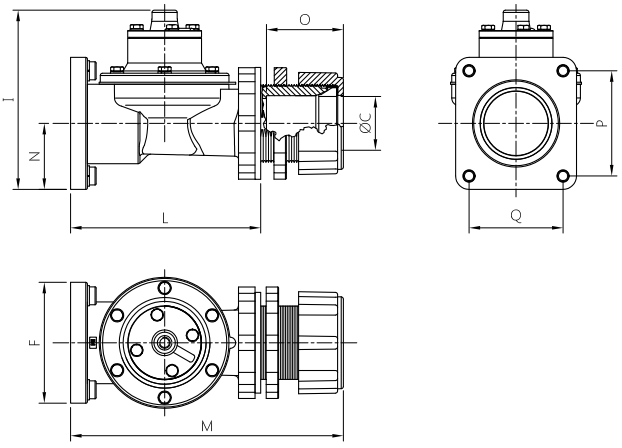

### TM030(N-V-T)M




### TM035(N-V-T)P




### TM035(N-V-T)M




| MODEL | ØA | L | M | N | F | I | O | P | Q |
|---|---|---|---|---|---|---|---|---|---|
| TM030(N-V-T)P | 1 ½" | 168 | 244 | 60 | 108 | 183 | 67 | 94 | 84 |
| TM030(N-V-T)M | 1 ½" | 168 | 244 | 60 | 108 | 127 | 67 | 94 | 84 |
| | | | | | | | | | |
| TM035(N-V-T)P | 1 ½" | 168 | 244 | 60 | 108 | 216 | 67 | 94 | 84 |
| TM035(N-V-T)M | 1 ½" | 168 | 244 | 60 | 108 | 160 | 67 | 94 | 84 |

# VALVES AND CONNECTORS



| | | |
|---|---|---|
| | BULKHEAD QUICK CONNECTORS | PS/PD series |
| | MOUNTING KEYS | SG/SD series |

# BULKHEAD QUICK CONNECTORS - PS/PD SERIES - ø ¾”- 1”- 1½”- 2”

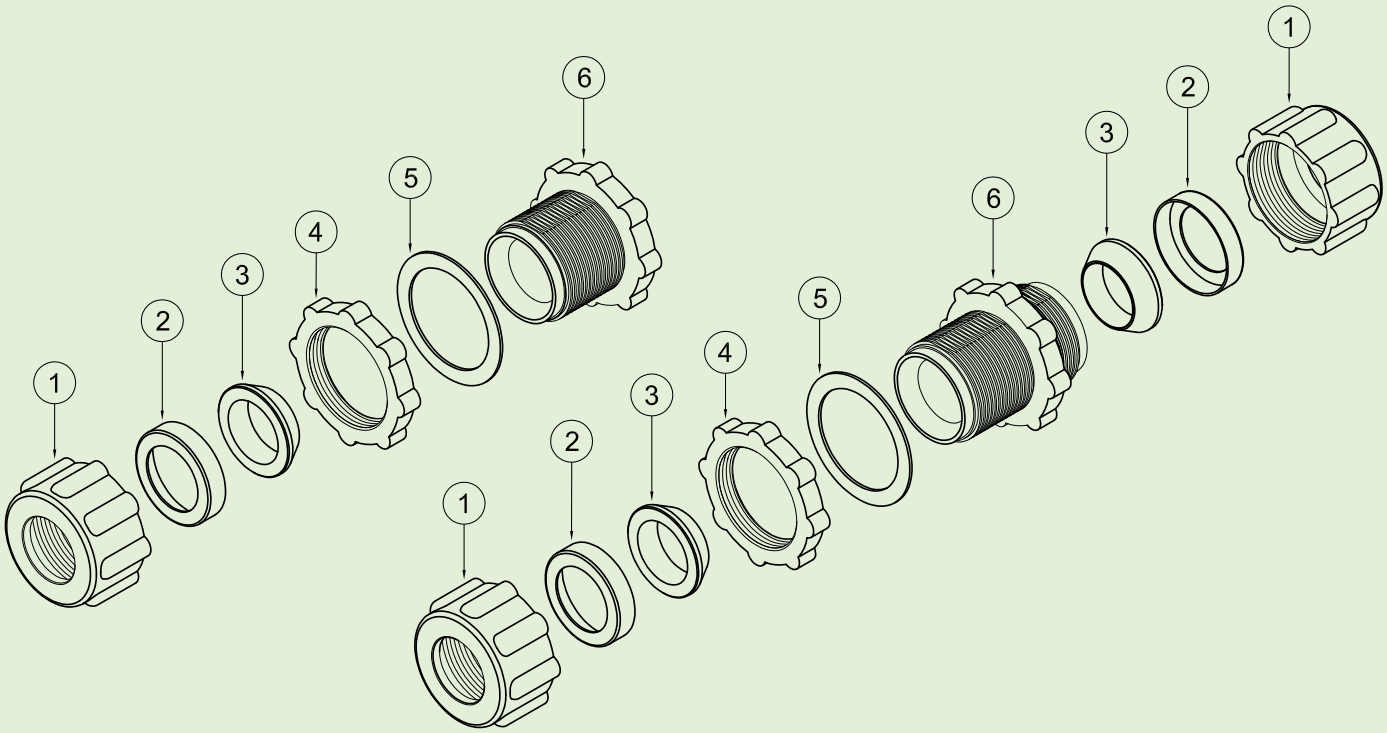
The bulkhead quick connectors are designed to allow air cannons to pass through the filter wall in a simple and rational way, without requiring welds or threaded connectors.

Turbo provides two ranges:

- PD series, used to connect two pipes
- PS series, used for the air cannon

Turbo also provides special keys for fastening nuts and lock nuts.
We recommend using then only in a pneumatic setting.
Do not use as a mechanical support.

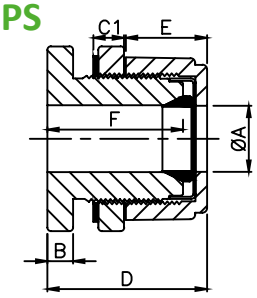
| DESCRIPTION | | PS20 | PS25 | PS40 | PS55 |
|---|---|---|---|---|---|
| 1 | Nut | 1281040 | 1281045 | 1281050 | 1281055 |
| 2 | Retaining ring | 1321006 | 1321010 | 1321012 | 1321014 |
| 3 | Conical seal | 3301010 | 3301013 | 3301017 | 3301020 |
| 4 | Lock nut | 3181036 | 3181036 | 3181032 | 3181022 |
| 5 | Fibre gasket | 3141529 | 3141529 | 3581000 | 3581014 |
| 6 | Body | 1252022 | 1252026 | 1252032 | 1251052 |

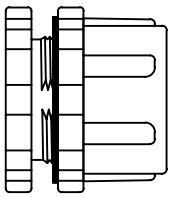



| DESCRIPTION | | PD20 | PD25 | PD40 | PD55 |
|---|---|---|---|---|---|
| 1 | Nut | 1281040 | 1281045 | 1281050 | 1281055 |
| 2 | Retaining ring | 1321006 | 1321010 | 1321012 | 1321014 |
| 3 | Conical seal | 3301010 | 3301013 | 3301017 | 3301020 |
| 4 | Lock nut | 3181036 | 3181036 | 3181032 | 3181022 |
| 5 | Fibre gasket | 3141529 | 3141529 | 3581000 | 3581014 |
| 6 | Body | 1252020 | 1252024 | 1252028 | 1252034 |

# PS/PD SERIES - Ø ¾”- 1”- 1½”- 2” - OVERALL DIMENSIONS

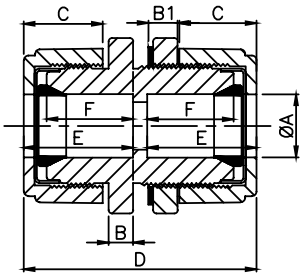
## PS

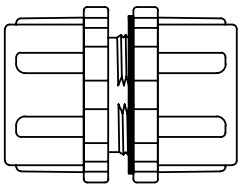


| MODEL | øA | B | C1 | D | E | F | Weight (kg) |
|---|---|---|---|---|---|---|---|
| PS 20 | ¾ ” | 10.5 | 12.5 | 67 | 35 | 56 | 0.5 |
| PS 25 | 1” | 10.5 | 12.5 | 67 | 35 | 56 | 0.4 |
| PS 40 | 1 ½" | 15 | 16.5 | 92 | 40 | 79 | 0.8 |
| PS 55 | 2” | 15 | 16.5 | 91 | 42 | 80 | 1 |

## PD

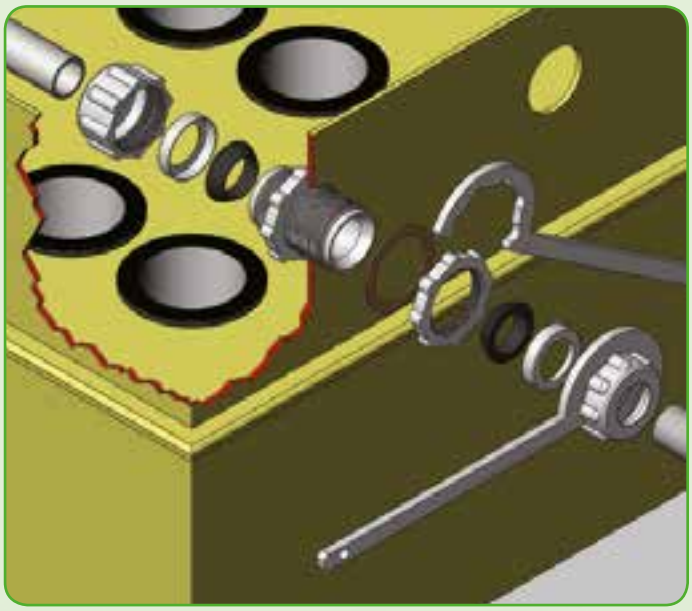


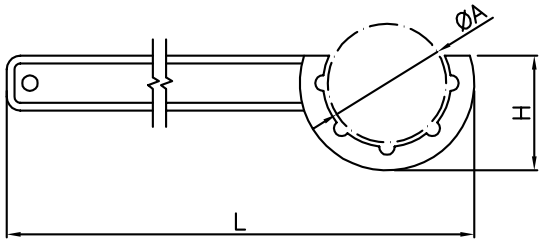



| MODEL | øA | B | B1 | C | D | E | F | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| PD 20 | ¾ ” | 10.5 | 12.5 | 35 | 105 | 50 | 38 | 0.7 |
| PD 25 | 1” | 10.5 | 12.5 | 35 | 105 | 50 | 38 | 0.6 |
| PD 40 | 1 ½" | 15 | 16.5 | 40 | 140 | 67 | 55 | 1.2 |
| PD 55 | 2” | 15 | 16.5 | 42 | 142 | 55 | 66 | 1.4 |

| TECHNICAL FEATURES | | |
|---|---|---|
| Body, lock nut, nuts | Die-cast aluminium | |
| Seals | NBR | -30°C / +100°C |
| | Silicone | -60°C / +200°C |
| Bulkhead connector assembly | 3/4” | hole in wall min. diam.: 56 |
| | 1” | hole in wall min. diam.: 56 |
| | 1” 1/2 | hole in wall min. diam.: 72 |
| | 2” | hole in wall min. diam.: 84 |

# MOUNTING KEYS - SG/SD SERIES






NUT LOCKING KEY SD SERIES

| MODEL | ø | A | H | L |
|---|---|---|---|---|
| SD 20 | ¾ ” | 61 | 70 | 350 |
| SD 25 | 1” | 61 | 70 | 350 |
| SD 40 | 1 ½" | 82 | 85 | 410 |
| SD 55 | 2” | 98 | 90 | 420 |

LOCK NUT LOCKING KEY SG SERIES

| MODEL | ø | A | H | L |
|---|---|---|---|---|
| SG 20 | ¾ ” | 70 | 65 | 350 |
| SG 25 | 1” | 70 | 65 | 350 |
| SG 40 | 1 ½" | 90 | 85 | 410 |
| SG 55 | 2” | 103 | 90 | 420 |

# PILOT ENCLOSURE

| |
|---|
| RCP series |
| RLD series |
| REP series |

## CONFORMING REMOTE PILOT ENCLOSURE

**ATEX** **II 3D T100°C**
**IP66** **NEMA 4 UL50**

The airtight pilot enclosures (protection rating IP66) allow the remote control of diaphragm valves.

Available in the following versions:

- RCP for short distances (approx. 3 m)
- RLD for long distances (approx. 10 m)

The valves are pneumatically connected to the enclosure by means of a 6 or 8 mm rislan pipe.
The RCP and RLD enclosures are provided with precabled common terminals.
The ERCP enclosure provides for the full electrical connection of all the coils to the printed circuit board inside.

Self-regulating thermistors for heating are available for cold and humid climates to ensure a temperature of 5°C inside the enclosure.

| *example* | RCP | 5 | V/... | 00/22 | R |
|---|---|---|---|---|---|

RCP: IP 66 AIRTIGHT ENCLOSURE
RLD: IP 66 AIRTIGHT ENCLOSURE
ERCP: IP 66 AIRTIGHT ENCLOSURE
REP: EXPLOSION-PROOF ENCLOSURE

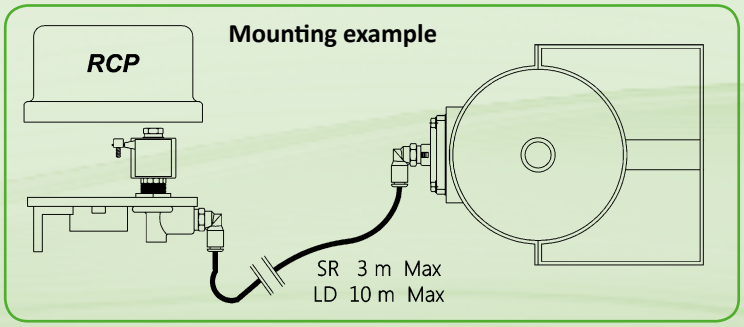
NUMBER OF PILOTS INSTALLED
RCP 1-2-3-4-5 (Small enclosure)
RCP 6-7-8 (medium enclosure)
RCP 9-10-11-12 (large enclosure)
ERCP 1-2-3-4-5-6-7-8 (medium enclosure)

OUTPUT
24V/50-60Hz = 02450
115V/50-60Hz = 11050
230V/50-60Hz= 22050
24VDC = 024DC
(ERCP = 024DC - 12W)

00 standard version
Zone 22 ATEX Certification

PTC self-adjusting heating element
Power supply 12 / 48 Vac / Vdc
Power supply 115 / 230 Vac

The code RCP5V/...R represents an IP 66 airtight enclosure (RCP) with five electric pilots installed (5) powered by a 24V 50Hz voltage (V/..) with self-adjusting thermistor (R).

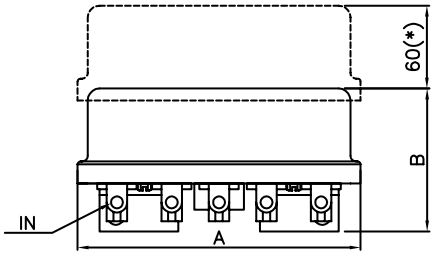


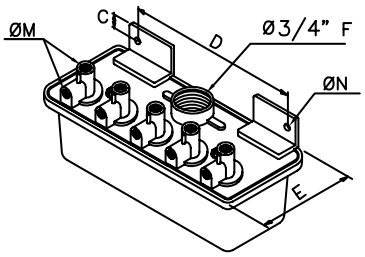
# REMOTE PILOT ENCLOSURE - RCP SERIES

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating pressure | between 0.5 and 7.5 bar |
| Operating temperature | -20°C; +80°C |
| with heating element | -40°C +80°C |
| Cover and base | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Protection | IP66 |
| Standard voltage | 230 -110 - 24V |
| | 50-60 Hz 19 VA |
| | 24VDC 15W |
| Maximum Valve Distance | 3 Metres |

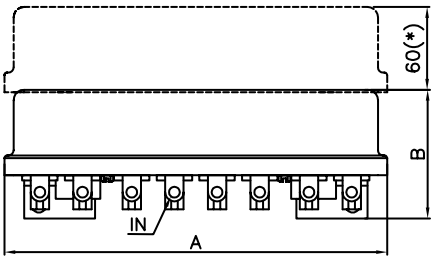
(*) Clearance for opening the cover

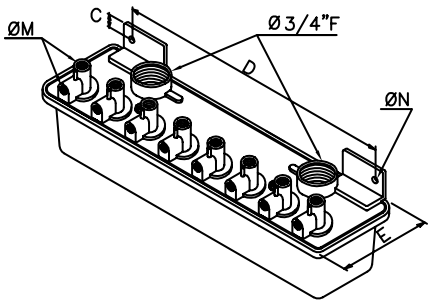
## RCP5



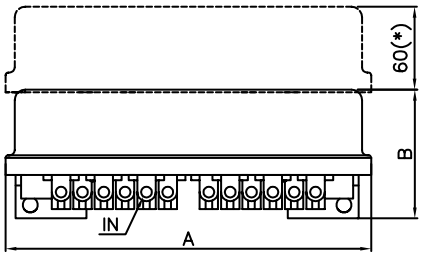



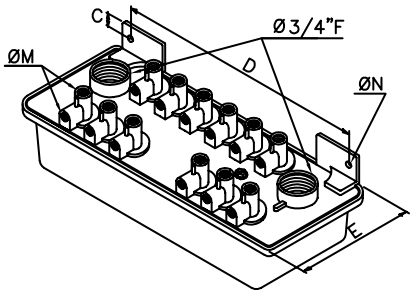

## RCP8




## RCP12



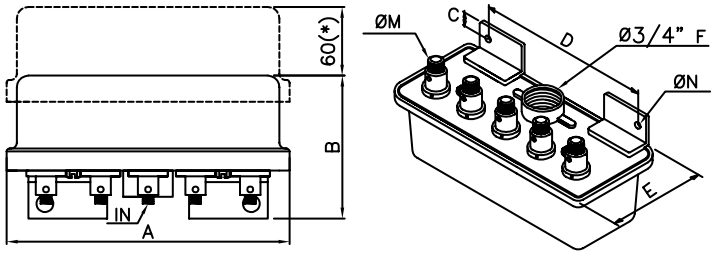

| MODEL | A | B | C | D | E | ØM | ØN | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| RCP5 | 210 | 98 | 10 | 156 | 100 | ⅛" | 11 | 1.7 |
| RCP8 | 333 | 98 | 10 | 267 | 100 | ⅛" | 11 | 3.2 |
| RCP12 | 306 | 97 | 10 | 237 | 152 | ⅛" | 11 | 4.4 |

# REMOTE PILOT ENCLOSURE - RLD SERIES

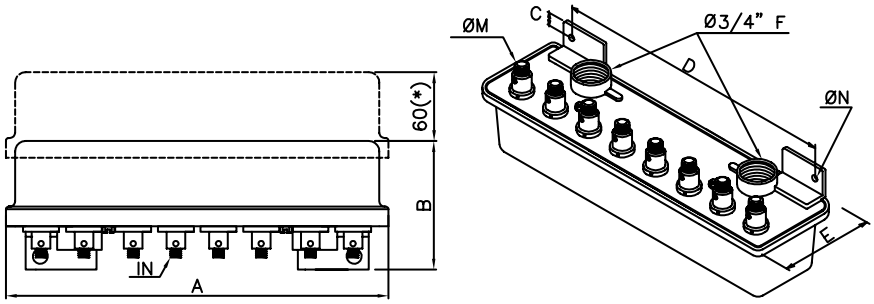
| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating pressure | between 0.5 and 7.5 bar |
| Operating temperature | -20°C; +80°C |
| with heating element | -40°C +80°C |
| Cover and base | Die-cast aluminium |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Protection | IP66 |
| Standard voltage | 230 -110 - 24V |
| | 50-60 Hz 19 VA |
| | 24VDC 15W |
| Maximum Valve Distance | 10 Metres |

(*) Clearance for opening the cover

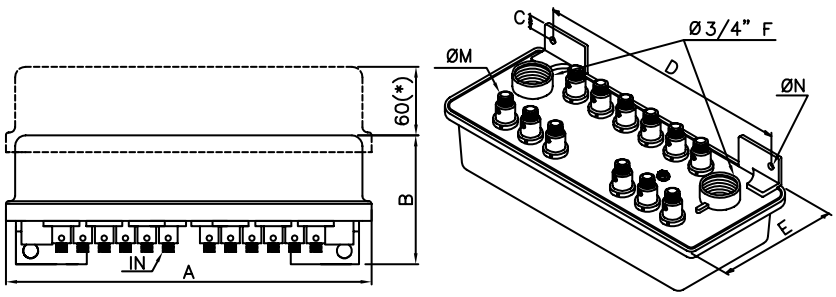
## RLD5




## RLD8




## RLD12




| MODEL | A | B | C | D | E | ØM | ØN | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| RLD5 | 210 | 98 | 10 | 156 | 100 | ¼" | 11 | 1.7 |
| RLD8 | 333 | 98 | 10 | 267 | 100 | ¼" | 11 | 3.2 |
| RLD12 | 306 | 97 | 10 | 237 | 152 | ¼" | 11 | 4.4 |

# REP ANTI-EXPLOSION REMOTE PILOTS ENCLOSURE

Pilots enclosure for remote control of the pneumatic diaphragm valves for dust collector plants, intended for areas that are hazardous due to the atmosphere at risk of explosion. Casing in non-painted die-cast aluminium, suitable as anti-explosion and for flames, available on request with anti-condensate heater.

The heater self-adjusting thermistor, prevents the series of pilots from freezing at low temperatures, thus allowing operation to -40°C.

**FEATURES**

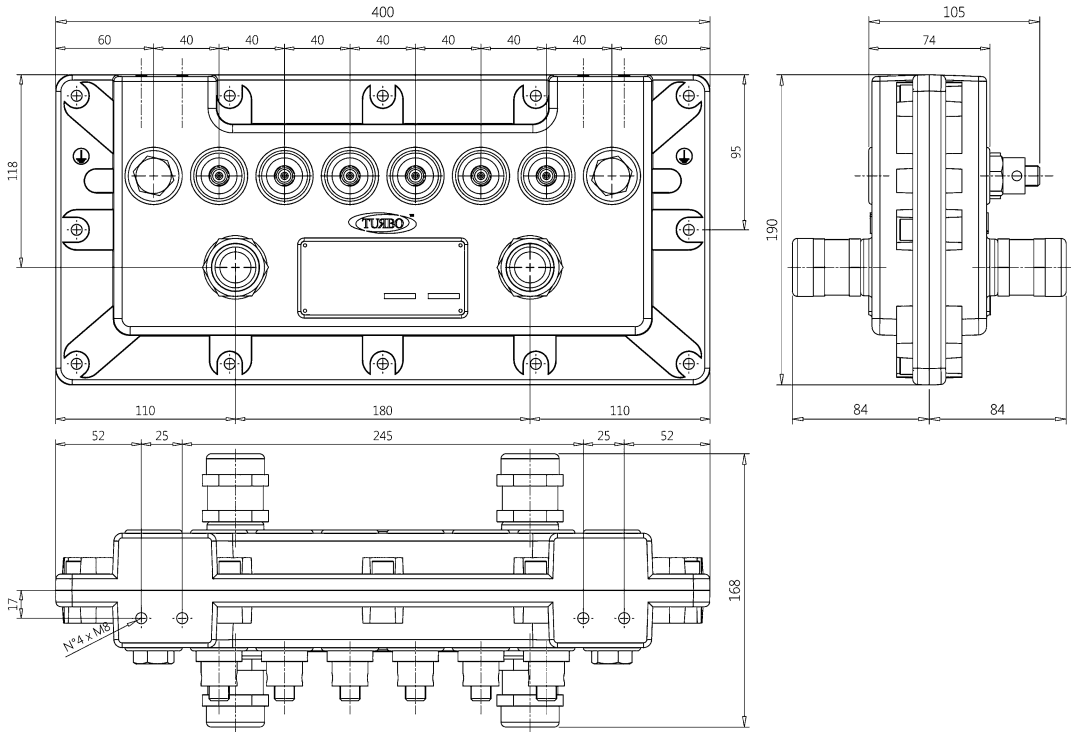
| | |
|---|---|
| Solenoid Valves Pilots | From 1 to 8 |
| Cable glands from ¾" NPT | From 1 to 4 |
| Operating temperature | -40°C +80°C |
| Operating Pressure | Maximum Applicable To the Pilot Unit 8 Bar |
| Solenoid Coil For Pilot | 12 VDC - 23 W |
| | 24 VDC - 12 W |
| | 24 VDC - 20 W |
| | 24 VAC - 19 VA |
| | 48 VAC - 19 VA |
| | 110 VAC - 19 VA |
| | 230 VAC - 19 VA |
| Heating Element | 12 - 48 VDC |
| | 12 - 48 VAC |
| | 110 VAC 50W |
| | 230 VAC 50W |
| Seals | Silicon Rubber - Shore Hardness A3 75 -Tensile Strength Mpa 7.2 - Temperature Range -60°C to +200°C |
| Free Air Internal Volume | 2333 $cm^3$ |
| Protection rating | IP 6x |
| Weight | Con n°. 2 Pilots - 7 Kg / Con n°. 4 Pilots - 7.3 Kg / Con n°. 6 Pilots - 7.6 Kg / Con n°. 8 Pilots - 7.9 Kg |

# REP ANTI-EXPLOSION REMOTE PILOTS ENCLOSURE

| NORMATIVE | |
|---|---|
| ATEX | EN IEC 60079-0 EN 60079-1 EN 60079-31 |
| IECEx | IEC 60079-0 IEC 60079-1 IEC 60079-31 |

| | GAS | | DUST | |
|---|---|---|---|---|
| Category | 2 | | 2 | |
| Type of protection | db | | tb | |
| Group | IIB | | IIIC | |
| Temperature Code. for maximum surface temperature | T4 | | T135°C | |
| Temperature Code. for maximum surface temperature with heating element | T4 | | T135°C | |
| Protection rating of the EPL equipment | Gb | | Db | |

## REP



# HOW TO ORDER


## REMOTE PILOT FOR DIAPHRAGM VALVES

Turbo provides two types of pilots for the remote control of diaphragm valves:

- SR/ESRM series, for distances up to 3 m.
- LD series, for distances up to 10 m.

The pneumatic connection occurs by means of a 6 or 8 mm rislan pipe.
The dimensions and voltages available are listed below.

| | |
|---|---|
| E1 | SR series |
| ESRM | ESRM series (*) |
| E2 | LD series |

**(*) ESRM for pilot enclosure connected to the Econet system**

*example* SRM 02450

| | |
|---|---|
| SRC: | SINGLE PILOT WITH CONNECTOR |
| SRM: | SINGLE PILOT WITH TERMINALS |
| ESRM: | SINGLE PILOT WITH FASTON CONNECTION |
| LDC: | SINGLE PILOT WITH CONNECTOR |
| LDM: | SINGLE PILOT WITH TERMINALS |

OUTPUT

| | |
|---|---|
| 24V/50-60Hz = | 02450 |
| 115V/50-60Hz = | 11050 |
| 230V/50-60Hz= | 22050 |
| 24VDC = | 024DC |

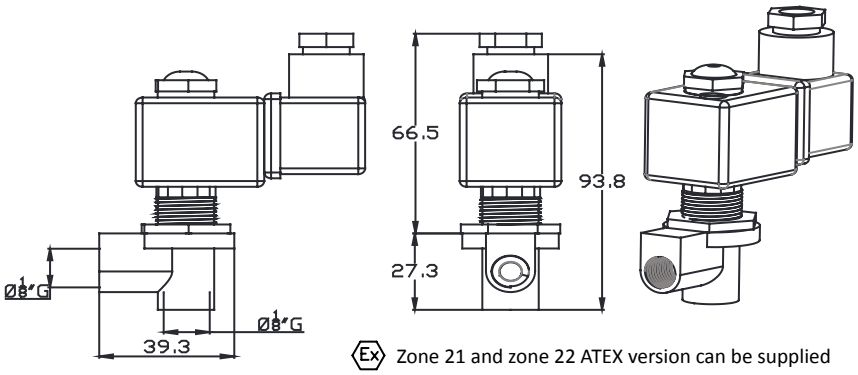
(ESRM = 024DC - 12W)

The code SRM02450 represents a single pilot with terminals (SRM) powered by a 24 V 50 Hz voltage (02450).

# REMOTE PILOT FOR DIAPHRAGM VALVES-SR SERIES

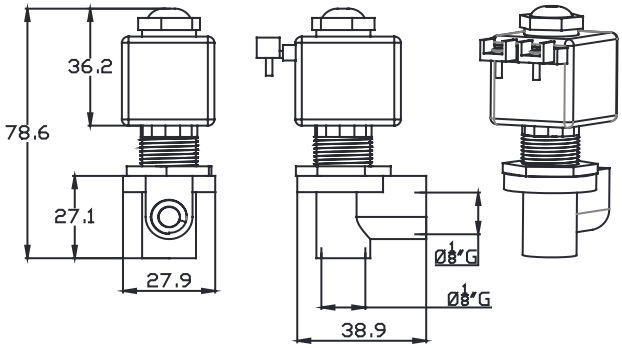
| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating pressure | between 0.5 and 7.5 bar |
| Operating temperature | -20°C; +80°C |
| Body | Brass |
| Pilot core | Stainless steel |
| Coil insulation | Class H |
| Connector | PG9 / IP 65 |
| Standard voltage | 230 -110 - 24V/50-60 Hz (19 VA) |
| | 24VDC (15W) - 24VDC (12W) |
| Maximum Valve Distance | 3 Metres |

## SRC - IP65

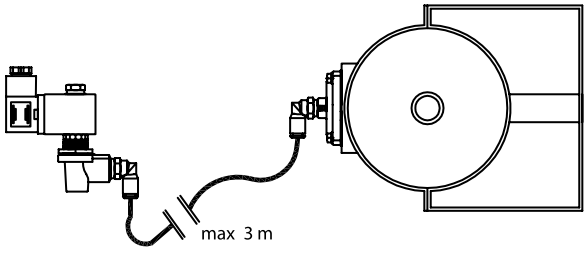



Ex Zone 21 and zone 22 ATEX version can be supplied

## SRM - IP00

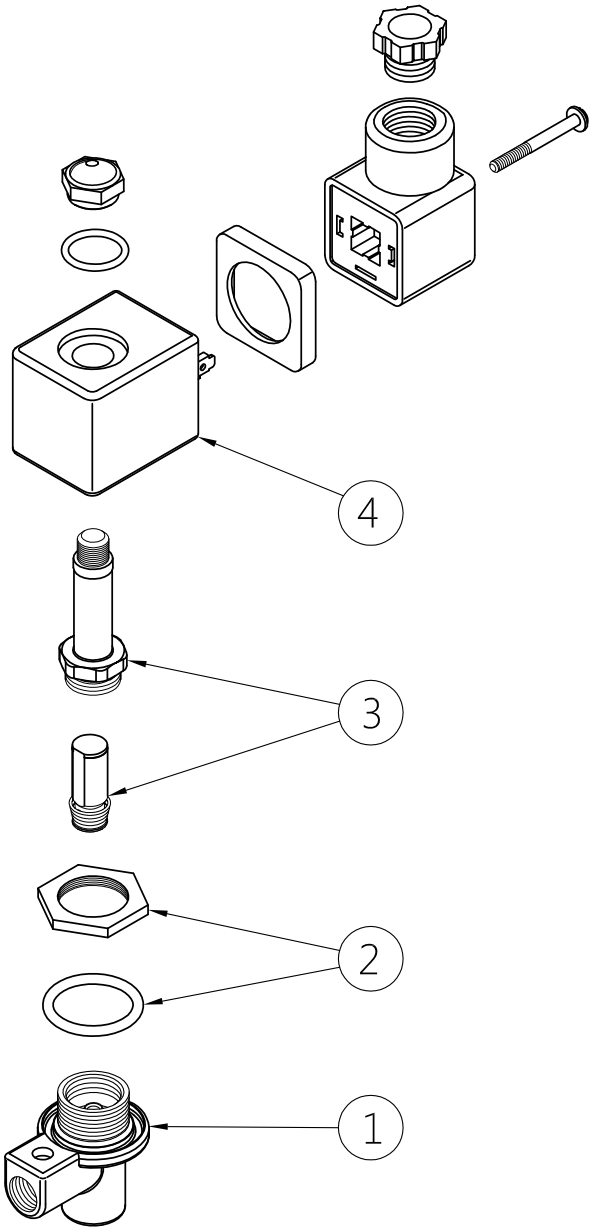



## MOUNTING EXAMPLE



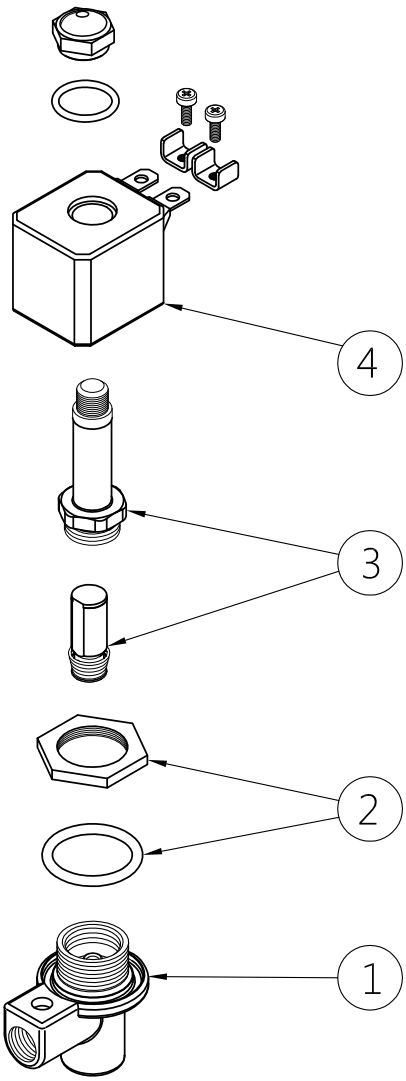
# SRSERIES - REMOTE PILOT FOR DIAPHRAGM VALVES

## SRC




| DESCRIPTION | | SRC |
|---|---|---|
| 1 | Pilot body | PCRP |
| 2 | Second lock nut + O-ring | 3121604 + 3301224 |
| 3 | Pilot unit | 1331088 |
| 4 | Coil + Connector | BH10 |

## SRM



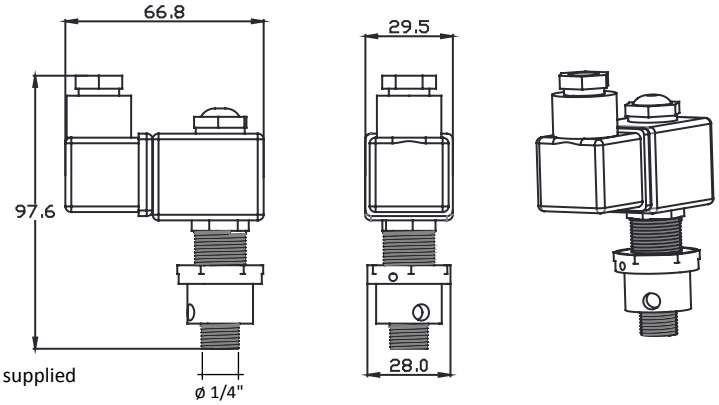

| DESCRIPTION | | SRM |
|---|---|---|
| 1 | Pilot body | PCRP |
| 2 | Second lock nut + O-ring | 3121604 + 3301224 |
| 3 | Pilot unit | 1331088 |
| 4 | Coil | BH10.../.. - A9 |

# REMOTE PILOT FOR DIAPHRAGM VALVES- LD SERIES

## LONG-DISTANCE ACTIVATION

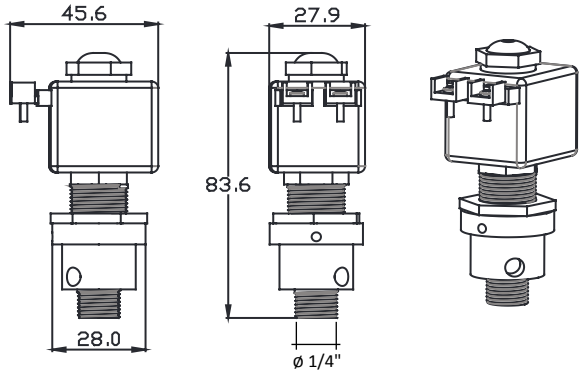
| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating pressure | between 0.5 and 7.5 bar |
| Operating temperature | -20°C; +80°C |
| Body | Brass |
| Pilot core | Stainless steel |
| Coil insulation | Class H |
| Connector | PG9 / IP 65 |
| Standard voltage | 230 -110 - 24V/50-60 Hz (19 VA) |
| | 24VDC (15W) |
| Maximum Valve Distance | 10 Metres |

## LDC

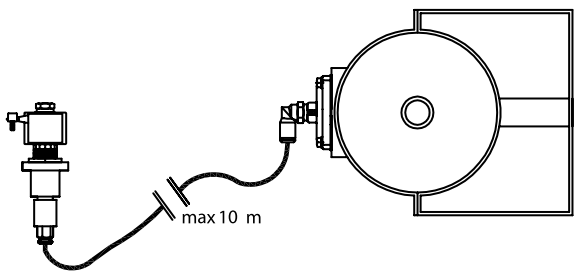



Ex Zone 21 and zone 22 ATEX version can be supplied

## LDM

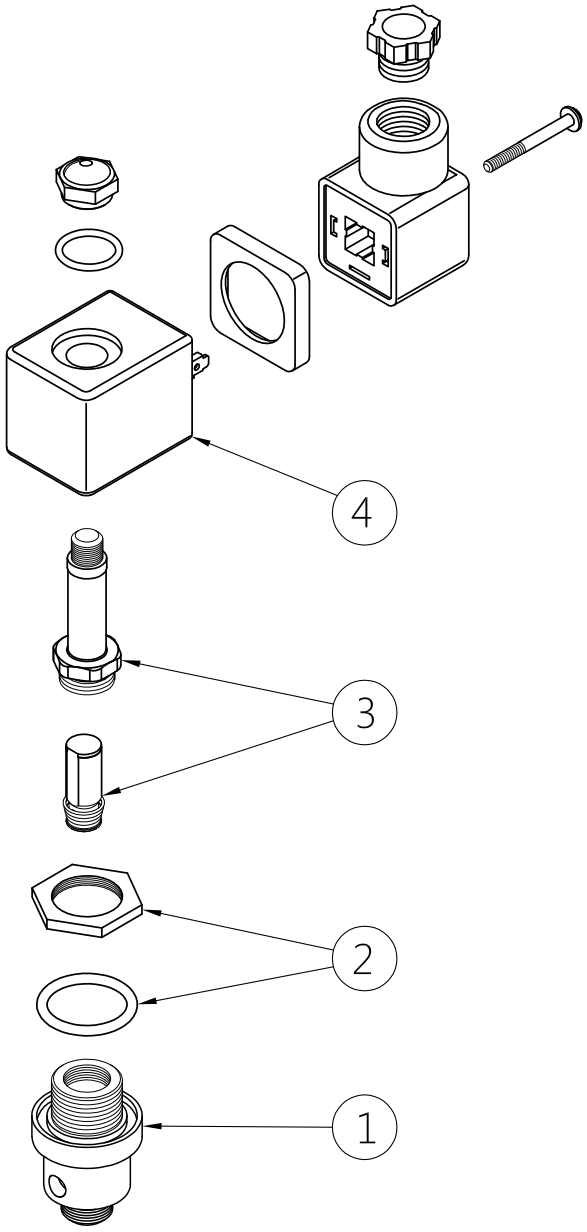



## MOUNTING EXAMPLE



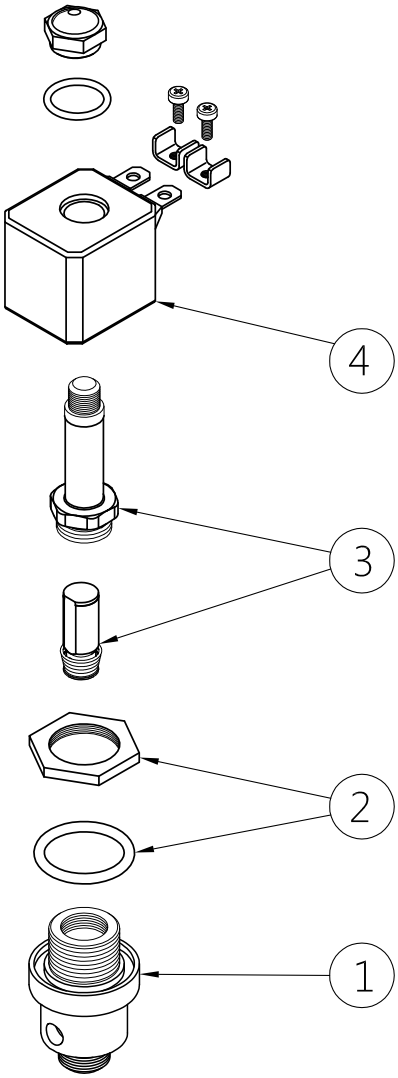
# LD SERIES - REMOTE PILOT FOR DIAPHRAGM VALVES

## LDC




| DESCRIPTION | | LDC |
|---|---|---|
| 1 | Pilot body | PCRPLD |
| 2 | Second lock nut + O-ring | 3121604 + 3301224 |
| 3 | Pilot unit | 1331172 |
| 4 | Coil + Connector | BH10.../.. |

## LDM

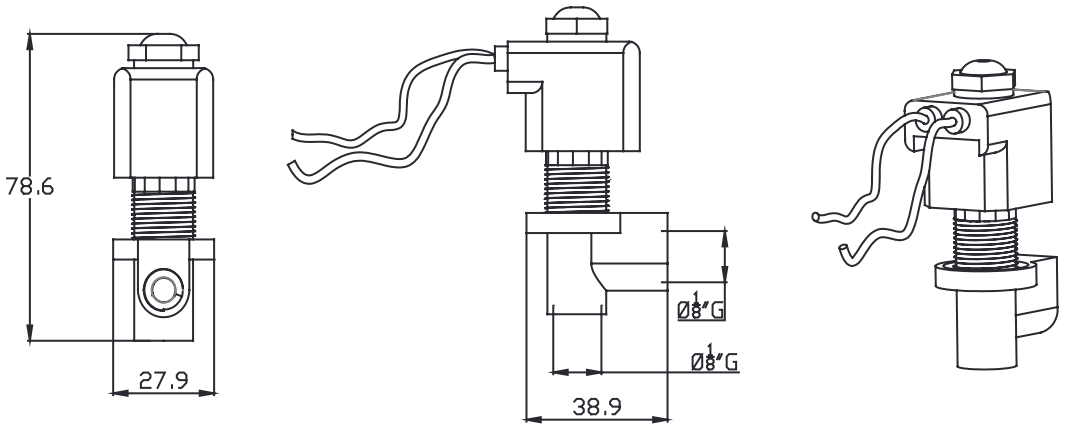



| DESCRIPTION | | LDM |
|---|---|---|
| 1 | Pilot body | PCRPLD |
| 2 | Second lock nut + O-ring | 3121604 + 3301224 |
| 3 | Pilot unit | 1331172 |
| 4 | Coil | BH10.../.. - A9 |

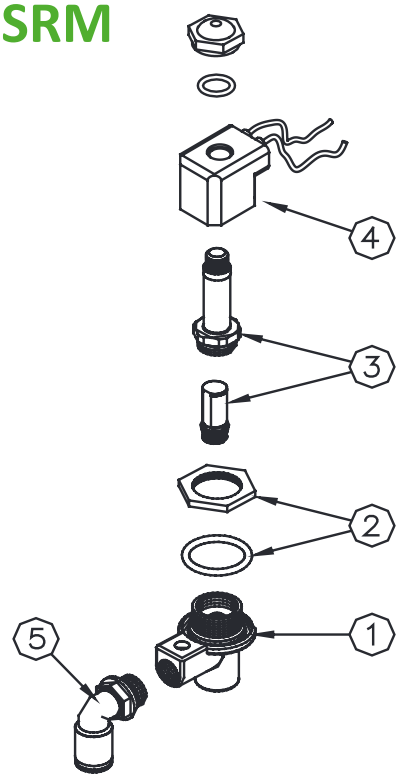
# REMOTE PILOT FOR DIAPHRAGM VALVES- ESRM SERIES

## LONG-DISTANCE ACTIVATION

| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating pressure | between 0.5 and 7.5 bar |
| Operating temperature | -20°C; +80°C |
| Body | Brass |
| Pilot core | Stainless steel |
| Coil insulation | Class H |
| Connector | PG9 / IP 65 |
| Standard voltage | 24VDC (12W) |

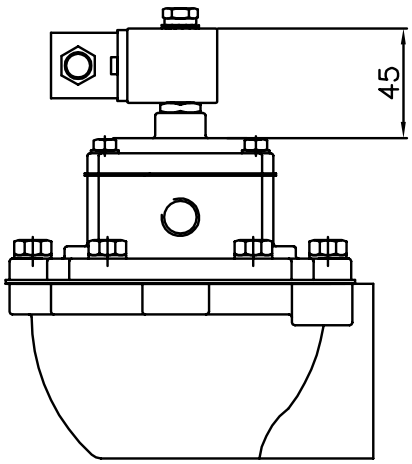



## ESRM




| DESCRIPTION | | ESRM |
|---|---|---|
| 1 | Pilot body | PCRP |
| 2 | Second lock nut + O-ring | 3121604 - 3301224 |
| 3 | Pilot unit | 1331088 |
| 4 | Coil | 4121048 |
| 5 | Quick connection elbow for 6x4 rislan pipe | 3421002 |

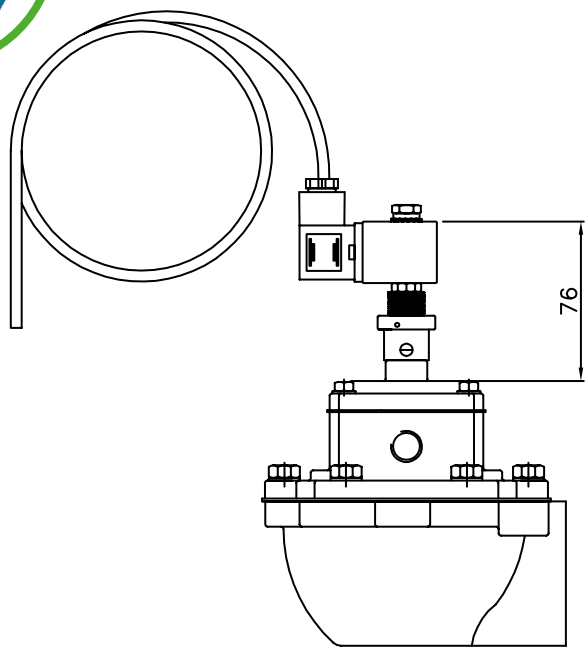
# ATEX - SOLENOID VALVES WITH ATEX CERTIFICATION




Valve configuration
ATEX II 3 GD T5
T140°C (zone 2 and 22)

With respect to the standard versions, the ATEX valves with EXII3GD marking and IP65, have coils and specific connections which make them suitable for use in zone 2-22, while maintaining practically the same overall dimensions.

Differently to the previous version, the ATEX valves with EXII2GD marking and IP65, have cols with connection cable completely integrated in the encapsulation of the same; moreover, they have a pilot group in brass, suitable for use in zone 1-21.




Valve configuration
ATEX II 2 GD Ex mb II T4
Ex mD 21 T135°C
Protection for construction safety
"c" EN 13463-5

# THE 2014/34 EU ATEX DIRECTIVE

The 2014/34/EU directive establishes the constructive and operating features (mandatory since 01/07/2003) of equipment and protective Systems intended for use in potentially explosive atmospheres. This Directive covers all explosion risks of whatever nature (electrical or not). Among its main aspects, it:

- introduces essential safety requirements (Ann. II – ESR)
- applies to equipment used in underground mines (Group I) and surface installations (Group II)
- classifies equipment into categories, according to the level of protection required
- monitors production based on corporate quality management systems

The Atex directive was the first to consider the explosion risk due to non-electrical sources, such as mechanical sparks, vibrations, surface overheating of mechanical and electrical components due to non-electrical phenomena, such as vibrations, high rotation speeds, mechanical lock, and overloads. This directive also establishes that the place of installation, deposit, and operation of the machine must be assessed carefully to be classified according to any presence and/or formation of an explosive atmosphere.
It also provides ESRs and prevention warnings as the equipment itself can be a source of explosive atmosphere (Ann. II – sect. 1.0.1).

**PURPOSE OF THE DIRECTIVE** - The 2014/34/EU directive was implemented by the European Union to liberalise the market of products intended to be used in potentially explosive atmospheres, whilst harmonising technical features and applicable standards. This directive aims at protecting people and property from hazards arising from the use of equipment and protection systems in a potentially explosive atmosphere.

**EXPLOSIVE ATMOSPHERE** - Mixture with air, under atmospheric conditions, of flammable substances in the form of gases, vapours, mists or dusts (temp. between -20°C and +40°C and pressure between 0.8 and 1.1 bar in compliance with EN60079 and EN13463-1) in which, after ignition has occurred, combustion spreads to the entire unburned mixture.

**POTENTIALLY EXPLOSIVE ATMOSPHERE** - An atmosphere that can become explosive due to local and operational conditions.

**AREAS EXPOSED TO EXPLOSION RISKS ACCORDING TO DIRECTIVE 2014/34/EU** - Hazardous areas are divided into zones according to the frequency and duration of the presence of the explosive atmosphere.

**Zone 0:** A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is present continuously, or for long periods, or frequently.

**Zone 1:** A place in which a potentially explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is likely to occur occasionally during ordinary activities.

# THE 2014/34 EU ATEX DIRECTIVE

**Zone 2:** A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is not likely to occur during normal activities, but, if it does, it will persist for a short period only.

**Zone 20:** A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, or for long periods or frequently.

**Zone 21:** A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur occasionally during ordinary activities.

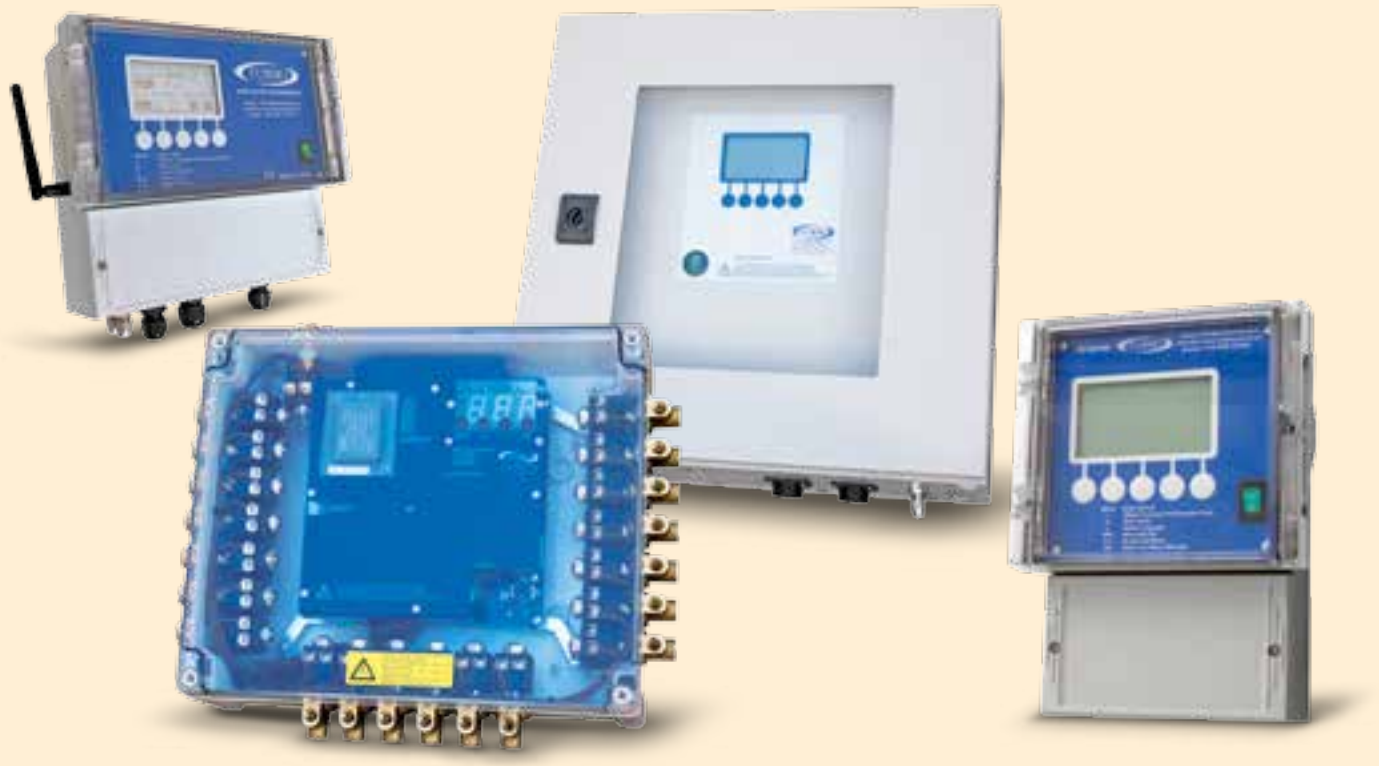
**Zone 22:** A place in which an explosive atmosphere in the form or a cloud of combustible dust in air is not likely to occur during ordinary activities, but, if it does, it will persist for a short period only.

## CORRESPONDENCE BETWEEN ZONES AND CATEGORIES

| **GROUP I** (Underground, methane and/or combustible dusts | | **GROUP II** (Surface, gas/air or mixture of dust/air/vapour) | | | | | |
|---|---|---|---|---|---|---|---|
| **Category M** | | **Category 1** | | **Category 2** | | **Category 3** | |
| 1 | 2 | G | D | G | D | G | D |
| | | Gas Zone 0 | Dust Zone 20 | Gas Zone 1 | Dust Zone 21 | Gas Zone 2 | Dust Zone 22 |
| Equipment ensuring a very high level of protection. Operation guaranteed in the event of possible errors | Equipment ensuring a high level of protection. Possible interruption in the presence of a potentially explosive atmosphere | For equipment ensuring a very high level of protection. In the event that potentially explosive atmospheres occur for long periods or frequently. | | For equipment ensuring a high level of protection. In the event that potentially explosive atmospheres occur occasionally. | | For equipment ensuring a normal level of protection. In the event that potentially explosive atmospheres occur only rarely and for a short period. | |

In an industrial setting (e.g. ATEX product in Group II), users are responsible for carrying out a risk assessment and dividing the workplace into zones according to the potential presence of gas, vapour, and combustible dust (in clouds or layers) in the event of activities that may lead to explosion risks.
Directive 2014/34/EU is implemented in Italy by Legislative Decree 81/2008 Title XI.
The manufacturer provides all the details concerning the Groups and categories the products fall into, so that users can decide in which Zone the ATEX product can be used safely, although it will not be possible to foresee where and how they will actually operate.

# ELECTRONIC SYSTEMS



Turbo provides a wide range of electronic devices to control high-tech dust collector systems.

This range of products can handle any type of system, from the smallest to the largest.

Sequencers / Economisers serve as digital programmers, either providing for the sequential activation of the solenoid valves or through a sensor for automatically measuring the pressure difference only when the filter requires so. This allows for considerable energy savings and extends the durability of the filtering elements.

Various configurations of control units with MODBUS RTU Master + Slave serial system (pneumatic or electrical) allow you to manage the dust collector system avoiding the cost for traditional solenoid valve wiring.

These systems have the following features:

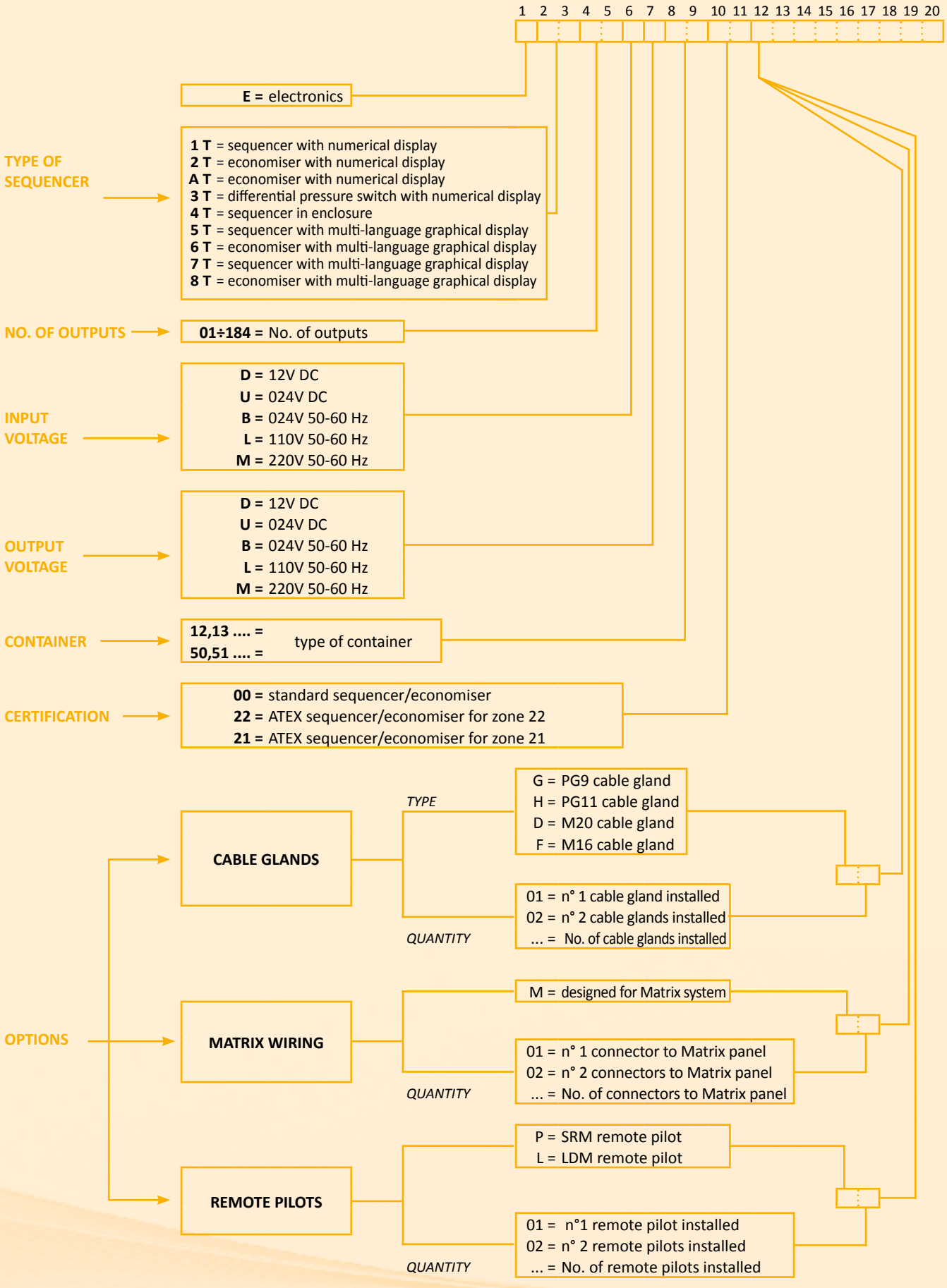
- Interface with PC/PLC/SUPERVISOR through RS485
- Control of parameters, such as differential pressure, temperature, humidity, and header tank pressure.
- Continuous dust emission control and recording.
- Complete management of compartment filters (cells) for ONLINE and OFFLINE operation.

All control devices are equipped with a quick and user-friendly menu and large displays that indicate the pressure difference in the filter. Data can be set easily using the keyboard or remotely using Turbo applications.

Turbo electronic control units cover the most common requirements when it comes to dust collector systems; however, our technical personnel can provide custom solutions ensuring flexibility and professionalism.

# HOW TO ORDER

## ECONOMISERS AND SEQUENCERS



# ECONOMISERS AND SEQUENCERS

| | |
|---|---|
| CYCLICAL SEQUENCER WITH NUMERICAL DISPLAY | E1T |
| ECONOMISER WITH DIFFERENTIAL PRESSURE SWITCH WITH NUMERICAL DISPLAY | E2T |
| ECONOMISER WITH DIFFERENTIAL PRESSURE SWITCH WITH NUMERICAL DISPLAY | EAT |
| DIGITAL PRESSURE SWITCH WITH NUMERICAL DISPLAY | E3T |
| CYCLICAL SEQUENCER WITH MULTI-LANGUAGE GRAPHICAL DISPLAY | E5T |
| ECONOMISER WITH DIFFERENTIAL PRESSURE SWITCH WITH MULTI-LANGUAGE GRAPHICAL DISPLAY | E6T |
| CYCLICAL SEQUENCER WITH MULTI-LANGUAGE GRAPHICAL DISPLAY | E7T |
| ECONOMISER WITH DIFFERENTIAL PRESSURE SWITCH WITH MULTI-LANGUAGE GRAPHICAL DISPLAY | E8T |
| ECONOMISER ECONET MODBUS RS485 - TCP/IP WITH MULTI-LANGUAGE GRAPHICAL DISPLAY | ECONET |
| ECONET REMOTE DISPLAY DEVICE | BEGA |
| PC PANEL FOR REMOTE MANAGEMENT OF THE ECONET PLUS AND TRIBO UNITS | ECONET |
| ECONET CONNECTOR WITH BUILT-IN ACTIVATION BOARD | ECONET |
| RS458 MODBUS ERCP PILOT ENCLOSURE | ERCP |
| BUILT-IN E4T SEQUENCER IN RCP ENCLOSURE | E4T |
| TRIBOELECTRIC SENSOR | E9TRB |
| CONTROL UNIT FOR TRIBOELECTRIC SENSOR | E9T |
| TIMED CONNECTOR | 4401002 - 4401004 |
| MATRIX ELECTRICAL SYSTEM | MATRIX |

# E1T CONTROL UNIT SEQUENCER 4÷16 OUTPUT CHANNELS

## DESCRIPTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems. It has 2 output relay contacts and 2 digital input contacts. 3-digit luminous LED display, which allows to read the unit operating status, the active solenoid valves and any alarms, at all times.

## OPTIONS UPON REQUEST

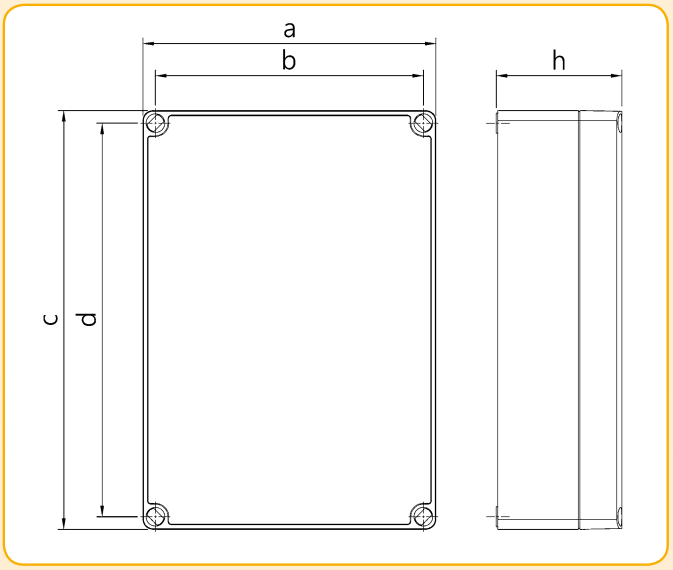
- Activation of 2 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Built-in pilots for remote control of the pneumatic valves.
- Casing container with different format.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | Remote enabling consent switch.<br>Post-cleaning cycles fan switch. |
| Solenoid valves output channels | 4 ÷ 16 |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 2 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Screen | 3 x 0.8 inch digit 7-segment LED display |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 5 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 999 sec. |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |




| Number of output channels | Dimension of the Structure | | | | |
|---|---|---|---|---|---|
| | a | b | c | d | h |
| 4 ÷ 8 | 175 | 160 | 175 | 160 | 75 |
| 12 ÷ 16 | 175 | 160 | 250 | 235 | 75 |

# E1T CONTROL UNIT SEQUENCER 20÷99 OUTPUT CHANNELS



## DESCRIPTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems. It has 3 output relay contacts and 2 digital input contacts. 3-digit luminous LED display, which allows to read the unit operating status, the active solenoid valves and any alarms, at all times. Data storage Micro SD memory board.

## OPTIONS UPON REQUEST

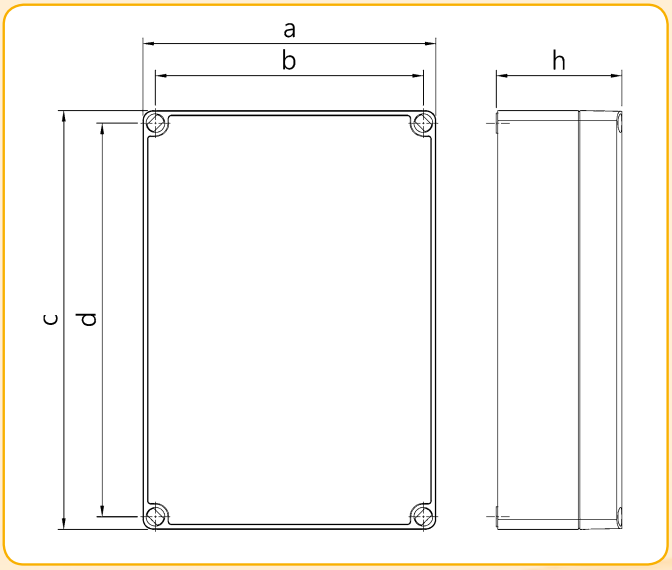
- Activation of 2 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Built-in pilots for remote control of the pneumatic valves.
- Casing container with different format.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage<br>upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | Remote enabling consent switch.<br>Post-cleaning cycles fan switch. |
| Solenoid valves output channels | 20 ÷ 99 with expansions |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 3 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Screen | 3 x 0.8 inch digit 7-segment LED display |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 5 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 999 sec. |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |




| Number of output channels | Dimension of the Structure | | | | |
|---|---|---|---|---|---|
| | a | b | c | d | h |
| 20 ÷ 24 | 200 | 180 | 300 | 280 | 130 |
| 28 ÷ 56 | 200 | 180 | 400 | 380 | 130 |
| 60 ÷ 99 | 300 | 280 | 600 | 580 | 130 |

# E2T CONTROL UNIT ECONOMISER 4÷16 OUTPUT CHANNELS

## DESCRIPTION

Economiser for controlling the pneumatic cleaning of industrial dust collector systems. It has 2 output relay contacts and 2 digital input contacts. Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status. 3-digit luminous LED display, which allows to read the filter clogging status, the active solenoid valves and any alarms, at all times.

## OPTIONS UPON REQUEST

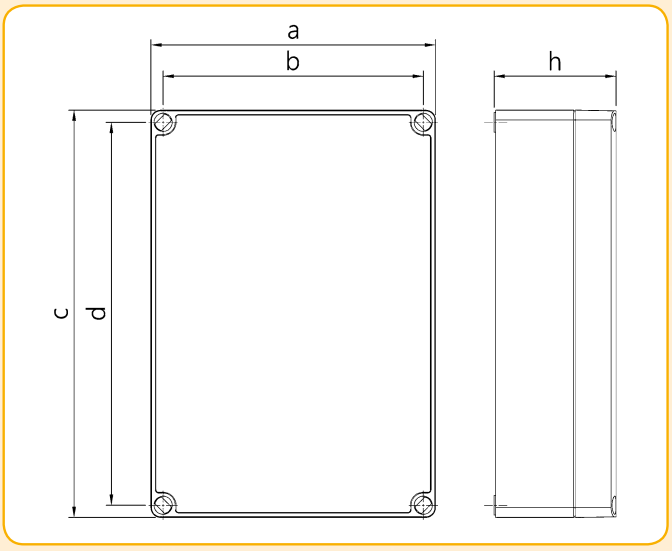
- Activation of 2 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Built-in pilots for remote control of the pneumatic valves.
- Casing container with different format.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | Remote enabling consent switch.<br>Post-cleaning cycles fan switch. |
| Solenoid valves output channels | 4 ÷ 16 |
| Active output 4-20ma | Proportional to the dP reading for remote consultation of the pressure. |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 2 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Differential pressure switch | 0 - 4 kPa |
| Screen | 3 x 0.8 inch digit 7-segment LED display |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 5 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 999 sec. |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |




| Number of output channels | Dimension of the Structure | | | | |
|---|---|---|---|---|---|
| | a | b | c | d | h |
| 4 ÷ 8 | 175 | 160 | 175 | 160 | 75 |
| 12 ÷ 16 | 175 | 160 | 250 | 235 | 75 |

# E2T CONTROL UNIT ECONOMISER 20÷99 OUTPUT CHANNELS

## DESCRIPTION

Economiser for controlling the pneumatic cleaning of industrial dust collector systems. It has 3 output relay contacts and 2 digital input contacts. Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status. 3-digit luminous LED display, which allows to read the filter clogging status, the active solenoid valves and any alarms, at all times. Data storage Micro SD memory board.

## OPTIONS UPON REQUEST

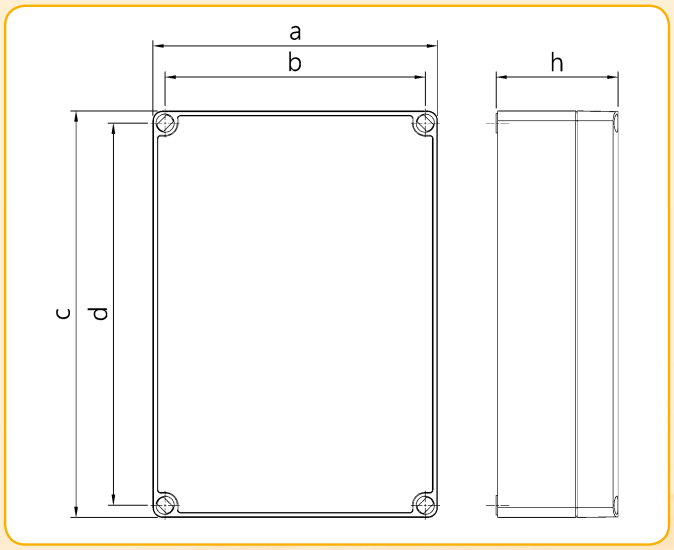
- Activation of 2 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Built-in pilots for remote control of the pneumatic valves.
- Casing container with different format.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | Remote enabling consent switch.<br>Post-cleaning cycles fan switch. |
| Solenoid valves output channels | 20 ÷ 99 with expansions |
| Active output 4-20ma | Proportional to the dP reading for remote consultation of the pressure. |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 3 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Differential pressure switch | 0 - 4 kPa |
| Screen | 3 x 0.8 inch digit 7-segment LED display |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 5 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 999 sec. |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |




| Number of output channels | Dimension of the Structure | | | | |
|---|---|---|---|---|---|
| | a | b | c | d | h |
| 20 ÷ 24 | 200 | 180 | 300 | 280 | 130 |
| 28 ÷ 56 | 200 | 180 | 400 | 380 | 130 |
| 60 ÷ 99 | 300 | 280 | 600 | 580 | 130 |

# EAT CONTROL UNIT ECONOMISER 4÷16 OUTPUT CHANNELS

## DESCRIPTION

Economiser for controlling the pneumatic cleaning of industrial dust collector systems. It has 3 output relay contacts and 2 digital input contacts. Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status. 3-digit luminous LED display, which allows to read the filter clogging status, the active solenoid valves and any alarms, at all times. Data storage Micro SD memory board.

## OPTIONS UPON REQUEST

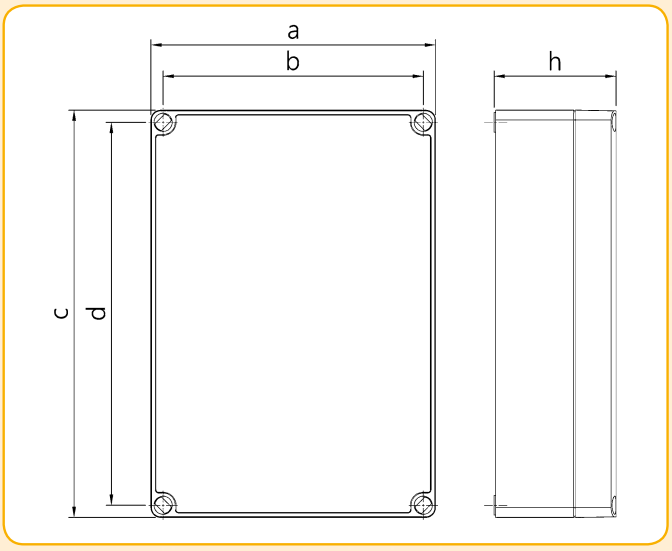
- Activation of 2 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Built-in pilots for remote control of the pneumatic valves.
- Casing container with different format.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | Remote enabling consent switch.<br>Post-cleaning cycles fan switch. |
| Solenoid valves output channels | 4 ÷ 16 |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 3 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Differential pressure switch | 0 - 4 kPa |
| Screen | 3 x 0.8 inch digit 7-segment LED display |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 5 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 999 sec. |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |




| Number of output channels | Dimension of the Structure | | | | |
|---|---|---|---|---|---|
| | a | b | c | d | h |
| 04 ÷ 16 | 175 | 160 | 250 | 235 | 75 |

# DIGITAL DIFFERENTIAL PRESSURE SWITCH - E3T




## DESCRIPTION

Differential pressure reading and communication of the minimum and maximum dP through 2 separate relays.
Possibility of saving the data and alarms on SD board.
Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status.
3-digit luminous LED display, which allows to read the filter clogging status, the active solenoid valves and any alarms, at all times.
Data storage SD memory board.

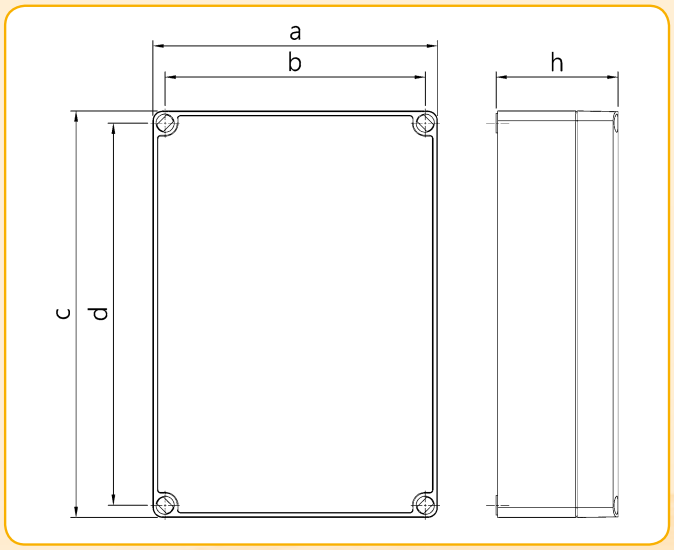
## OPTIONS UPON REQUEST

- Cable glands for power supply input.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Active output 4-20mA | Proportional to the dP reading for remote consultation of the pressure. |
| Electric consumption | 6 Watts at maximum load |
| Alarm Relays | 2 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Differential pressure switch | 0 - 10 kPa |
| Screen | 3 x 0.8 inch digit 7-segment LED display |
| 5 x 20 mm glass fuse | 315 mA |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |




Dimension of the Structure

| a | b | c | d | h |
|---|---|---|---|---|
| 175 | 160 | 175 | 160 | 75 |

For additional information and technical specifications, consult **www.turbocontrols.eu**

# E5T CONTROL UNIT SEQUENCER 20÷184 OUTPUT CHANNELS

## DESCRIPTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems. It has 3 output relay contacts and 2 digital input contacts. Luminous LCD display, which allows to read the unit operating status, the active solenoid valves and any alarms, at all times. Data storage Micro SD memory board.

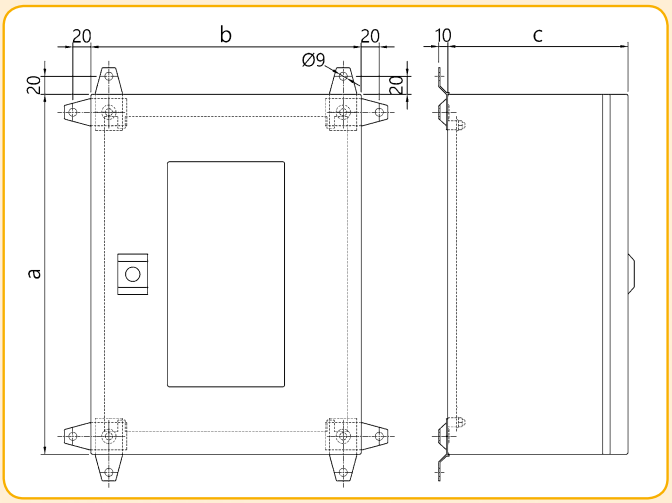
## OPTIONS UPON REQUEST

- Activation of 2 solenoid valves or 4 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Casing container with different format.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | Remote enabling consent switch.<br>Post-cleaning cycles fan switch. |
| Solenoid valves output channels | 20 ÷ 184 |
| Electric consumption | 30 Watts at maximum load |
| Alarm Relays | 3 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Screen | Backlit monochromatic graphic LCD B/N 128 x 64 pixel |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 5 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 999 sec. |
| Casing | Thick steel sheet 15/10, painted RAL7035. Door with glass and locking element. |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK09 10 Joule (EN62208) |




| Number of output channels | Dimension of the Structure | | |
|---|---|---|---|
| | A | B | C |
| 24 ÷ 56 | 400 mm | 400 mm | 200 mm |
| 64 ÷ 120 | 600 mm | 400 mm | 200 mm |
| 124 ÷ 184 | 800 mm | 600 mm | 250 mm |
| > 185 | Dimension on request | | |

For additional information and technical specifications, consult **www.turbocontrols.eu**

# E6T CONTROL UNIT ECONOMISER 20÷184 OUTPUT CHANNELS

## DESCRIPTION

Economiser for controlling the pneumatic cleaning of industrial dust collector systems. It has 3 output relay contacts and 2 digital input contacts. Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status. Luminous LCD display, which allows to read the filter clogging status, the active solenoid valves and any alarms, at all times. Data storage Micro SD memory board.

## OPTIONS UPON REQUEST

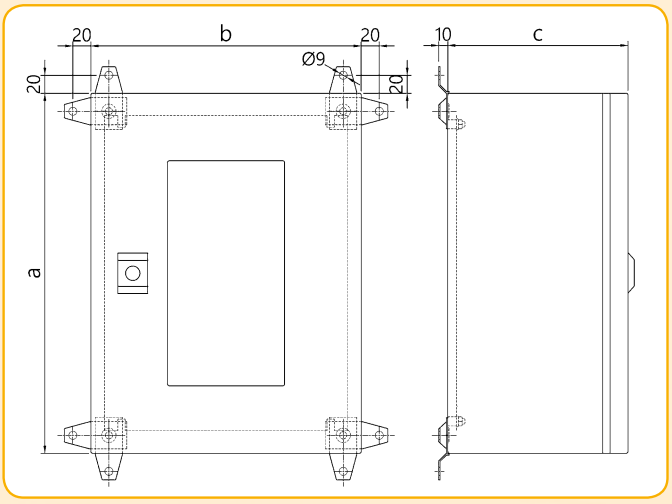
- Activation of 2 solenoid valves or 4 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Casing container with different format.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | Remote enabling consent switch.<br>Post-cleaning cycles fan switch. |
| Solenoid valves output channels | 20 ÷ 184 |
| Electric consumption | 30 Watts at maximum load |
| Alarm Relays | 3 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| differential pressure switch | 0 - 4 kPa |
| Screen | Backlit monochromatic graphic LCD B/N 128 x 64 pixel |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 5 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 999 sec. |
| Casing | Thick steel sheet 15/10, painted RAL7035. Door with glass and locking element. |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK09 10 Joule (EN62208) |




| Number of output channels | Dimension of the Structure | | |
|---|---|---|---|
| | A | B | C |
| 24 ÷ 56 | 400 mm | 400 mm | 200 mm |
| 64 ÷ 120 | 600 mm | 400 mm | 200 mm |
| 124 ÷ 184 | 800 mm | 600 mm | 250 mm |
| > 185 | Dimension on request | | |

# E7T CONTROL UNIT SEQUENCER 4÷16 OUTPUT CHANNELS


## DESCRIPTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems. It has 3 output relay contacts and 2 digital input contacts. Luminous LCD display, which allows to read the unit operating status, the active solenoid valves and any alarms, at all times.

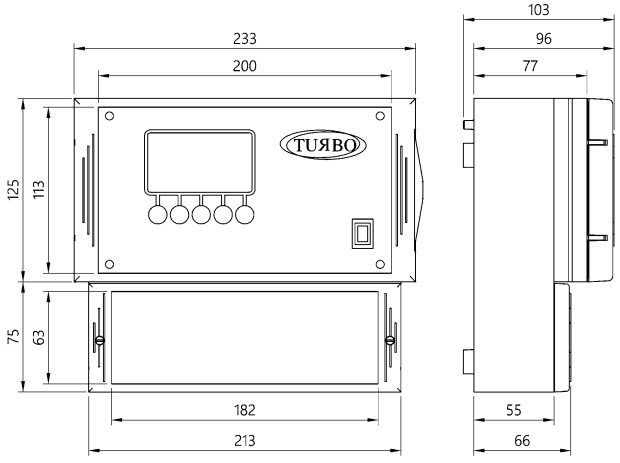
## OPTIONS UPON REQUEST

- Activation of 2 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | Remote enabling consent switch.<br>Post-cleaning cycles fan switch. |
| Solenoid valves output channels | 01 ÷ 16 |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 3 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Screen | Backlit monochromatic graphic LCD B/N 128 x 64 pixel |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 10 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 7200 sec. |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |




For additional information and technical specifications, consult **www.turbocontrols.eu**

# E8T CONTROL UNIT ECONOMISER 4÷16 OUTPUT CHANNELS


## DESCRIPTION

Economiser for controlling the pneumatic cleaning of industrial dust collector systems. It has 3 output relay contacts and 2 digital input contacts.
Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status.
Luminous LCD screen, which allows to read the following at all times

- the operating status of the unit
- the filter clogging status dP value
- the solenoid valves active and any alarms
- time until the command of the next air jet
- the emission value

Interface menu available in five languages.

## OPTIONS UPON REQUEST

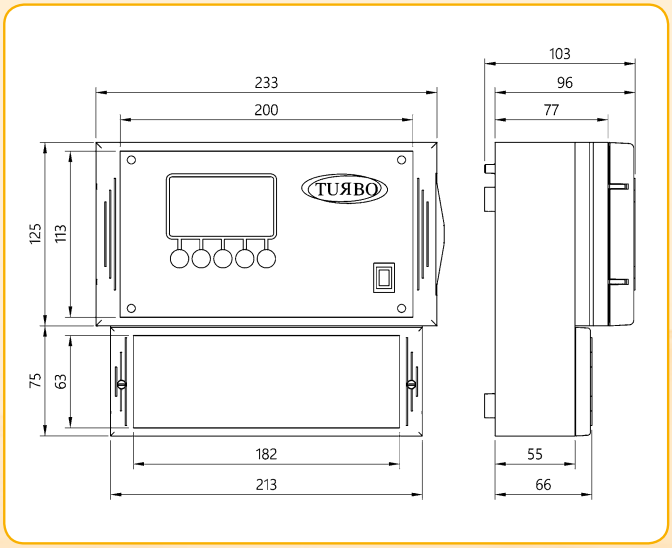
- Activation of 2 solenoid valves for every output channel.
- Analogue electrical tribo sensor management
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

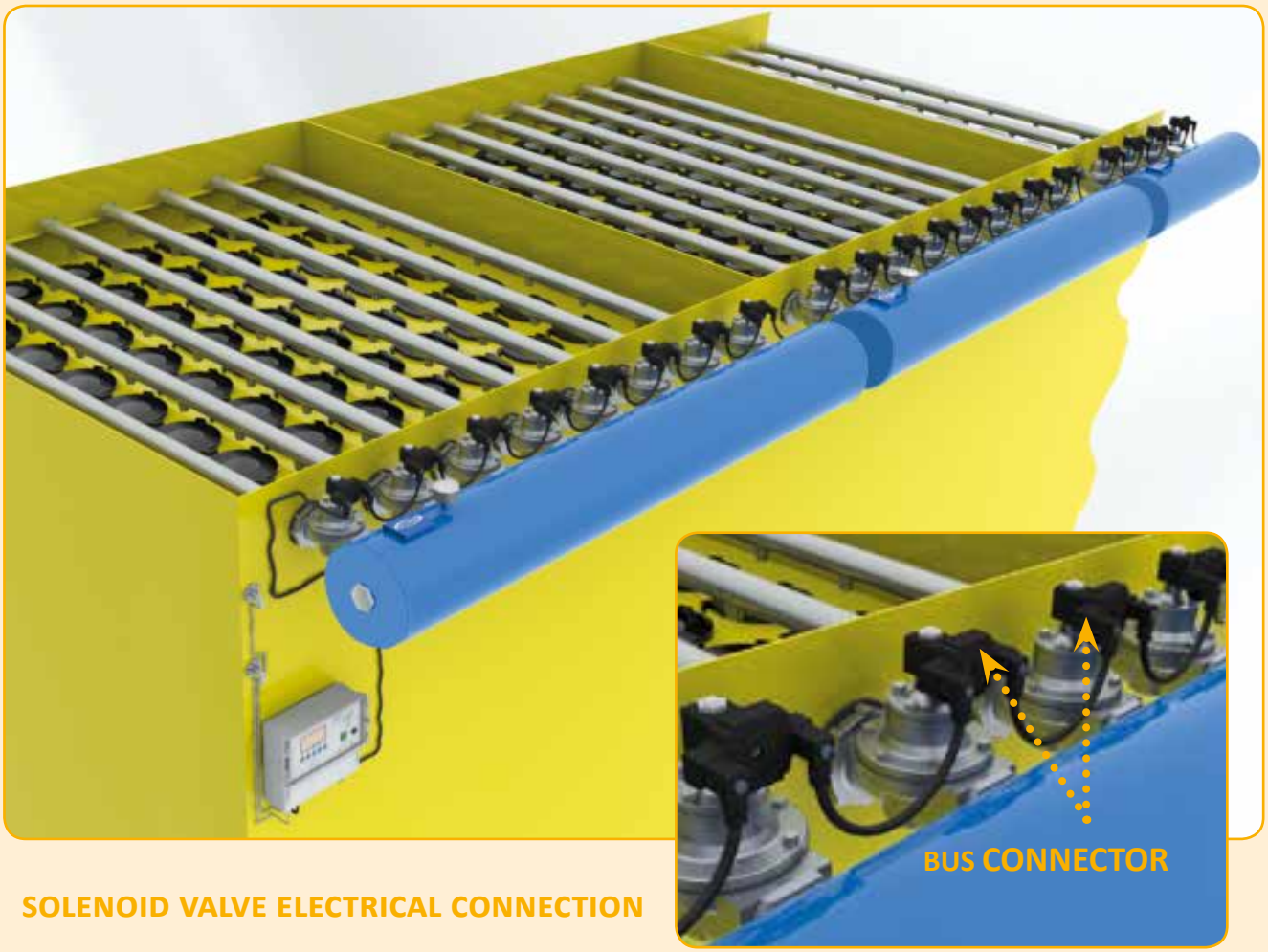
- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage<br>Alternative upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 115 Vac 50-60 Hz<br>230 Vac 50-60 Hz<br>24 Vac<br>24 Vdc |
| Inputs | from 4 to 20mA x 1 |
| Outputs proportionate to dP value for remote pressure reading | from 4 to 20mA x 1 |
| Solenoid valves output channels | 01 ÷ 16 |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 3 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Screen | Backlit monochromatic graphic LCD B/N 128 x 64 pixel |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 10 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 7200 sec. |
| Measurable pressure | 0 - 10 kPa |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |



# MODBUS RTU MASTER + SLAVE SERIAL SYSTEM - ELECTRIC



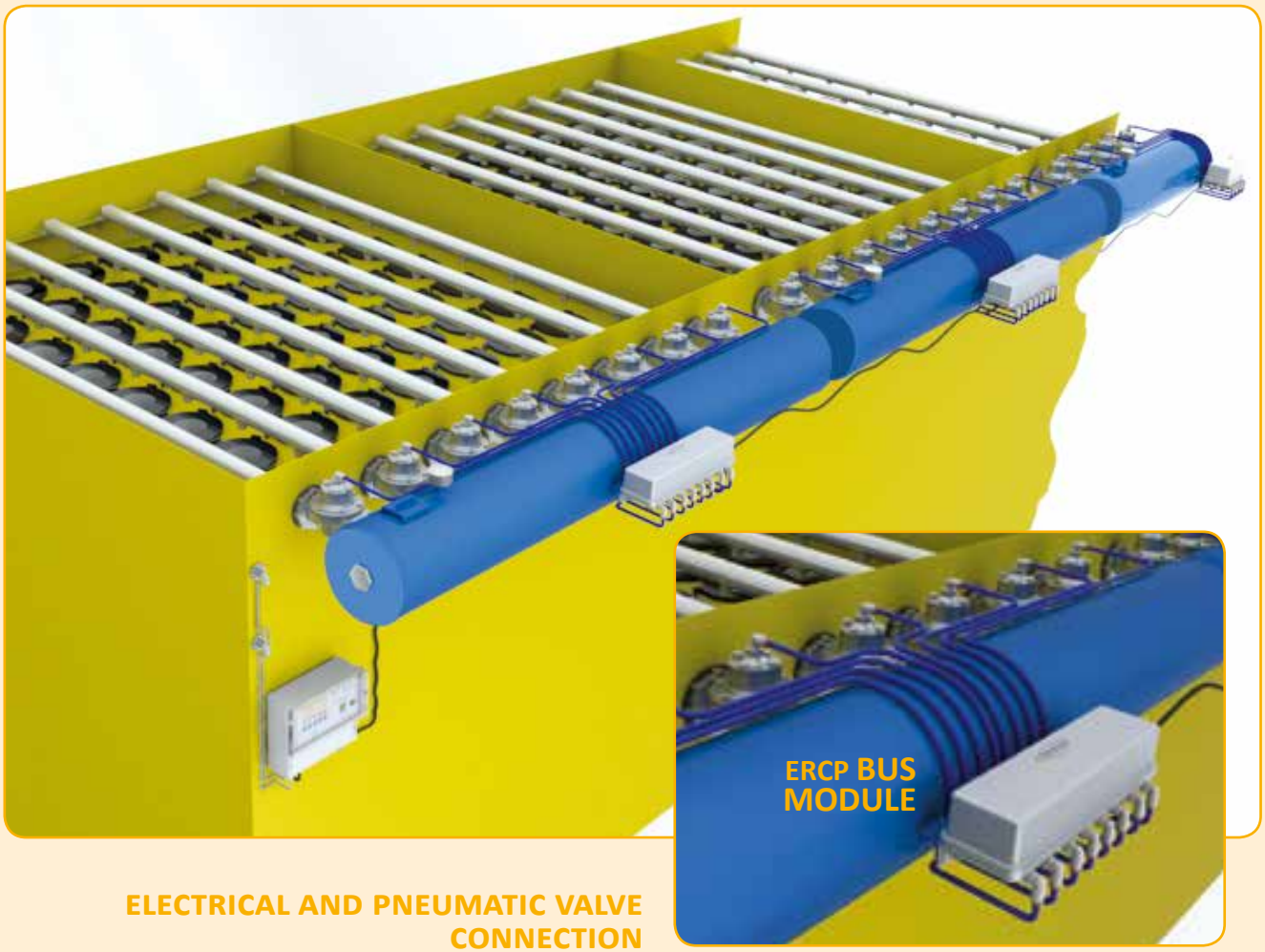

SOLENOID VALVE ELECTRICAL CONNECTION

## ECONET MASTER ECONOMISER


BEGA

The ECONET control unit PLUS version can be connected to the BEGA touch screen module.
Installed in the general control panel of the system, it can display/modify all the parameters of the ECONET control unit remotely.
Moreover, it is provided with Wi-Fi and Ethernet port and can be controlled from a PC through a Turbo application.

# MODBUS RTU MASTER + SLAVE SERIAL SYSTEM - PNEUMATIC




ELECTRICAL AND PNEUMATIC VALVE CONNECTION

## ECONET MASTER ECONOMISER

The ECONET control unit PLUS version can be connected to the BEGA touch screen module.
Installed in the general control panel of the system, it can display/modify all the parameters of the ECONET control unit remotely.
Moreover, it is provided with Wi-Fi and Ethernet port and can be controlled from a PC through a Turbo application.


BEGA

# ECONET CONTROL UNIT ECONOMISER
# 128 SOLENOID VALVES


## DESCRIPTION

Economiser for commanding pneumatic cleaning of the industrial dust collector plants, with serial control of up to 128 solenoid valves. It has 2 output relay contacts and 4 digital input contacts.
Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status.
Luminous LCD screen, which allows to read the following at all times

- the operating status of the unit
- the filter clogging status dP value
- the solenoid valves active and any alarms
- time until the command of the next air jet
- the emission value

Interface menu available in five languages.

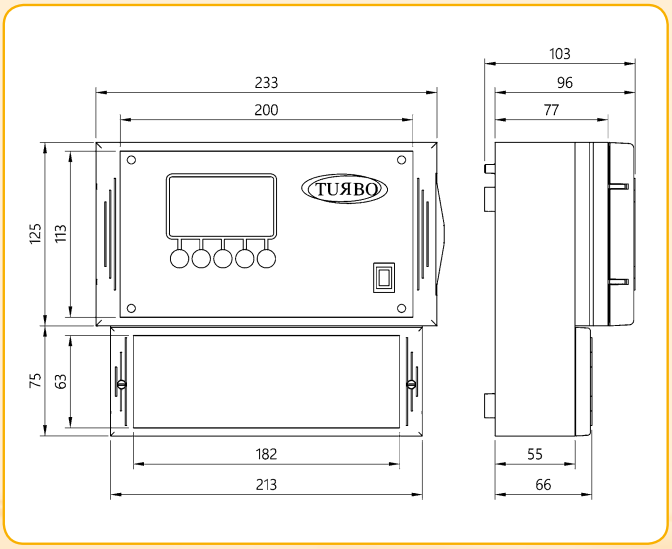
| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage<br>with automatic switch | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage<br>upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 24 Vdc |
| Inputs | from 4 to 20mA x 1 |
| Outputs proportional to the dP value for remote pressure reading | from 4 to 20mA x 1 |
| Solenoid valves output channels | 01 ÷ 128 digital bus |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 2 normally closed<br>Maximum load: 3A @ 250Vac,<br>2A @ 24Vdc, 24 Vac. |
| Screen | Backlit monochromatic graphic<br>LCD B/N 128 x 64 pixel |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative<br>non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 10 sec. |
| Interval pause time<br>between valves opening | 1 sec. ÷ 7200 sec. |
| Measurable pressure | 0 - 10 kPa |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |

## OPTIONS UPON REQUEST

- Cable glands for power supply input and output of solenoid valves drive cables.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004




For additional information and technical specifications, consult **www.turbocontrols.eu**

# ECONET PLUS EC+PLS CONTROL UNIT ECONOMISER
## 128 SOLENOID VALVES - BUS RS485


## DESCRIPTION

Economiser for commanding pneumatic cleaning of the industrial dust collector plants, with serial control of up to 128 solenoid valves. It has 2 output relay contacts and 2 digital input contacts.
Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status.
Luminous LCD screen, which allows to read the following at all times

- the operating status of the unit
- the filter clogging status dP value
- the solenoid valves active and any alarms
- the time remaining until the command of the next jet of air
- the emission value

Interface menu available in five languages.

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage<br>with automatic switch | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage<br>upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 24 Vdc |
| Inputs | from 4 to 20mA x 1 |
| Outputs proportional to the dP value for remote pressure reading | from 4 to 20mA x 1 |
| Solenoid valves output channels | 01 ÷ 128 digital bus |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 2 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Serial transmission interfaces of the 485 type with Modbus RTU protocol | 1 |
| Output from digital Mosfet for an external relay with coil up to 24 Vdc | 1 |
| Screen | Backlit monochromatic graphic LCD B/N 128 x 64 pixel |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative<br>non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 10 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 7200 sec. |
| Measurable pressure | 0 - 10 kPa |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |

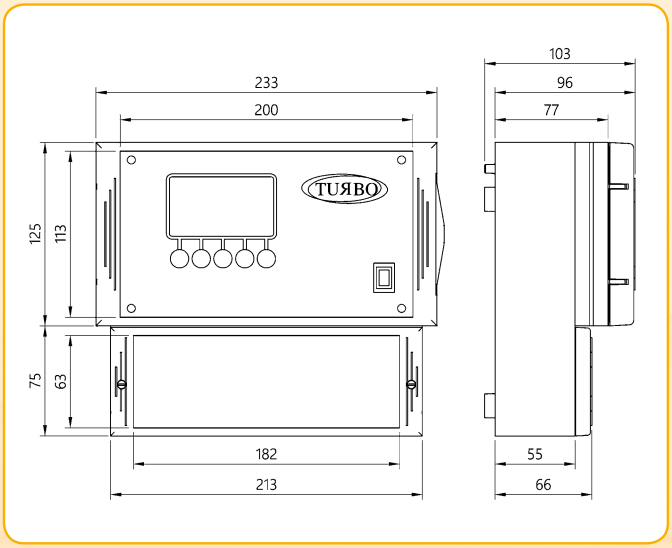
## OPTIONS UPON REQUEST

- Cable glands for power supply input and output of solenoid valves drive cables.
- Analogue electrical tribo sensor management.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**



# ECONET PLUS EC++LS CONTROL UNIT ECONOMISER
# 128 SOLENOID VALVES RS485 BUS MODBUS RTU PROTOCOL TCP/IP


## DESCRIPTION

Economiser for commanding pneumatic cleaning of the industrial dust collector plants, with serial control of up to 128 solenoid valves. In the version with metal container and enhanced power supply unit, the serial control of up to 250 solenoid valves is possible. It has 2 output relay contacts and 4 digital input contacts. Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status. Luminous LCD screen, which allows to read the following at all times

- the operating status of the unit
- the filter clogging status dP value
- the solenoid valves active and any alarms
- time until the command of the next air jet
- the emission value

Interface menu available in five languages.

## OPTIONS UPON REQUEST

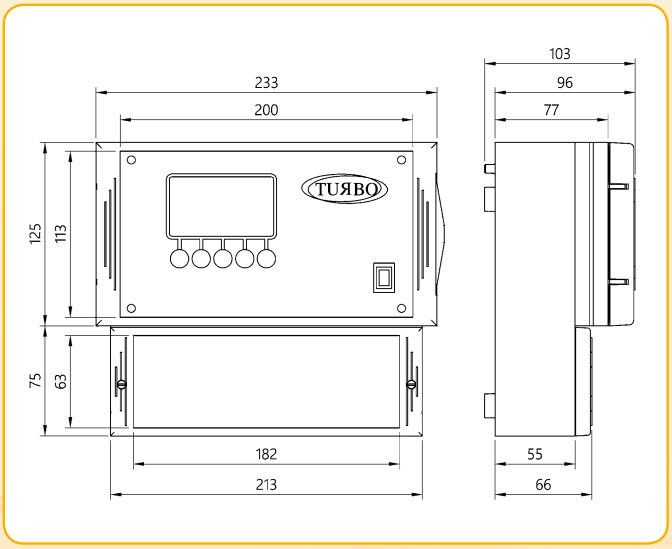
- Ethernet communication network board.
- Wi-Fi communication network board.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Analogue and digital electrical tribo sensor management.
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage<br>with automatic switch | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage<br>upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Output voltage for solenoid valves | 24 Vdc |
| Inputs | from 4 to 20mA x 1 |
| Outputs proportional to the dP value for remote pressure reading | from 4 to 20mA x 1 |
| Solenoid valves output channels | 01 ÷ 128 digital bus |
| Electric consumption | 28 Watts at maximum load |
| Alarm Relays | 2 normally closed<br>Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac. |
| Serial transmission interfaces of the 485 type with Modbus RTU protocol | 1 |
| Output from digital Mosfet for an external relay with coil up to 24 Vdc | 1 |
| RS485 interface for Tribo Sensor | 1 |
| Screen | Backlit monochromatic graphic LCD B/N 128 x 64 pixel |
| 5 x 20 mm glass fuse | 115 or 230 Vac 1 x 1 A<br>24 Vac or 24 Vdc 1 x 3 A |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Valves opening impulse time | 50 m.sec. ÷ 10 sec. |
| Interval pause time between valves opening | 1 sec. ÷ 7200 sec. |
| Measurable pressure | 0 - 10 kPa |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |
| Shock resistance | IK07 2 Joule (EN62262) |



# COMPUTER WITH LCD MONITOR, WI-FI - BEGA


## DESCRIPTION

BEGA220A is a computer with a 7” touch screen monitor with 18-bit colour depth.
Possible Wi-Fi connection, Ethernet LAN 10/100 Mbps, audio, Host USB 1.1 x1.
Its features allows it to manage and read parameters from the Econet control unit through a built-in application.

| TECHNICAL DATA | |
|---|---|
| CPU | Samsung S3C2416X 400 MHz |
| | Architecture 32-bit RISC CPU ARM926EJ |
| System memory | 16 bit 64MB / 133Mhz DDR2 |
| Fixed hard disk | 2 GB |
| Serial ports | 3xRS-232, 1xRS485/422 |
| USB | 1xUSB2.0, 1xUSB1.1 |
| LAN | 16-bit 10/100 Mbps Controller Ethernet |
| Wi-Fi | IEEE 802.11b/g |
| LCD size | 7” |
| LCD resolution | 800x480 |
| Power supply | DC 9V-28V |
| Operating temperature | -20°C/+70°C |

| MAIN TECHNICAL FEATURES |
|---|
| ARM 9 CPU |
| 7" 800x400 colour touch screen with 18-bit colour depth |
| Wi-Fi |
| 10/100Mbps Ethernet LAN |
| RS-232/485/422 |
| USB1.1x1 host |
| USB2.0x1 device |
| SD/MMC Card |
| WINCE 5.0 OS support |
| Net Compact Framework 3.5 support |

# ECONET PANELPC AND TRIBO PANEL PC

## ECONET PANEL PC can be interfaced with Master EC+ EC++ control unit

Software for Windows OS with licence for individual PC.
MODBUS RTU communication protocol, PC/Master connection with USB-RS485 converter, supplied.
TCP/IP communication protocol for versions with Master control unit equipped with Wi-Fi and/or Ethernet port.
Pendrive supplied with instructions and utility for installation in the company Network.
Main features:

- allows remote display and modification of all control unit setting parameters.
- Real time indication of filter clogging with 4 units of measurement.
- Displays and stores alarms on PC
- Exports data into Excel and stores the data directly onto the Hard Disk of the PC
- Possibility of displaying more Master control units of the same plant, assigning a different address to each and connecting the same in series with termination of the last in the chain.
- Software in 5 Languages
- Customisable user password
- Solenoid valves 1-6 multi-activation sequence compilation.
- Customisable company Logo and info

## TRIBO PANEL PC can be interfaced with triboelectric sensor control unit

Software for Windows OS with licence for individual PC.
MODBUS RTU communication protocol, PC/control unit connection with USB-RS485 converter, supplied.
Main features:

- allows remote display and modification of all control unit setting parameters.
- Real time display of dust emissions in mg/m3
- Display and storing of alarms: peak (broken sleeve)/pre-alarm/alarm
- Continuous recording of dust emission and storage of the data directly on Hard Disk of the PC (Excel data reading)
- Software in 5 Languages
- Customisable user password
- Customisable company Logo and info

# ECONET CONNECTOR WITH BUILT-IN ACTIVATION BOARD

## DESCRIPTION

Connector with built-in board for wiring the connection and for activation of the dust collection valves in the plants managed by the Econet, Econet Plus EC+PLS, Econet Plus EC++LS. serial system.

## TECHNICAL FEATURES

- Communication with Econet control unit via Serial Bus.
- Self-addressing connectors, which are interchangeable with each other, are associated with the valve where they are mounted.
- Connector filled with encapsulating resin.
- Maximum distance from the Econet control unit to the first valve of the of the chain 50 metres.
- CE Certification

## OPTIONS UPON REQUEST

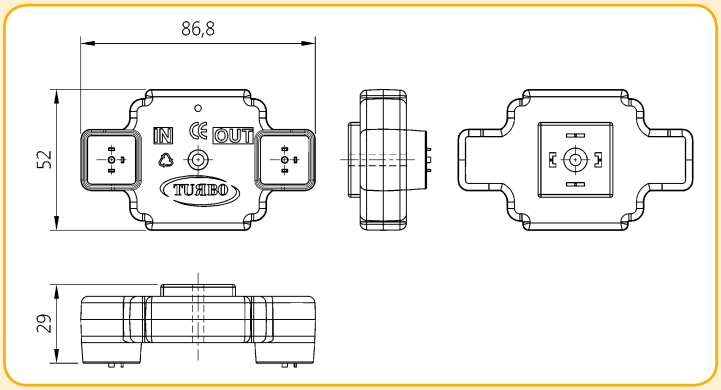
- Zone 22 ATEX Certification.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

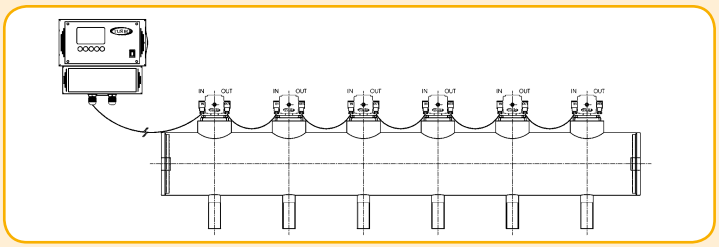
For additional information and technical specifications, consult **www.turbocontrols.eu**

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 24 Vdc 12 Watt |
| Electric consumption | 0.25 Watt |
| Connection to the coil | 3 Poles 2 + Gnd Distance between the Contacts 18 mm. EN 175301-803 - DIN43650 |
| Connection between connectors | 3 Poles 2 + Gnd Distance between the Contacts 8 mm. EN 175301-803 - DIN43650 |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Casing | Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |




## CONNECTION TO THE VALVES WITH PILOT

Connect the power supply wiring of the solenoid valves of the connector of the control board terminal board, to the first solenoid valve in input indicated with IN:



Connect the other solenoid valves in sequence using the connecting cables with PG7 connectors, respecting the IN -> OUT polarity; mount the gaskets to guarantee the IP sealing of the circuit.
The connector of the last solenoid valve marked OUT cannot be used. It must be closed with a PG7 connector, by removing the cylindrical rubber cap supplied as protection for transport only.


The wires of the connection cable must be connected o the polarised connectors in the following positions:

- 1 + power supply brown wire
- 2 activation signal white wire
- 3 green power supply wire central position with earth symbol

The cable used for wiring is the H05VV-F 0.72mm² - 19Awg type

# ERCP - REMOTE PILOT ENCLOSURE FOR ECONET SYSTEM

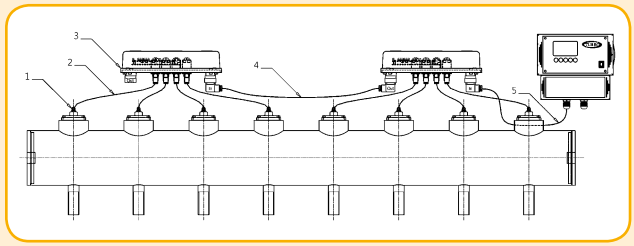
## DESCRIPTION

Pilot enclosure for the remote control of diaphragm valves interfaced with Econet system only.

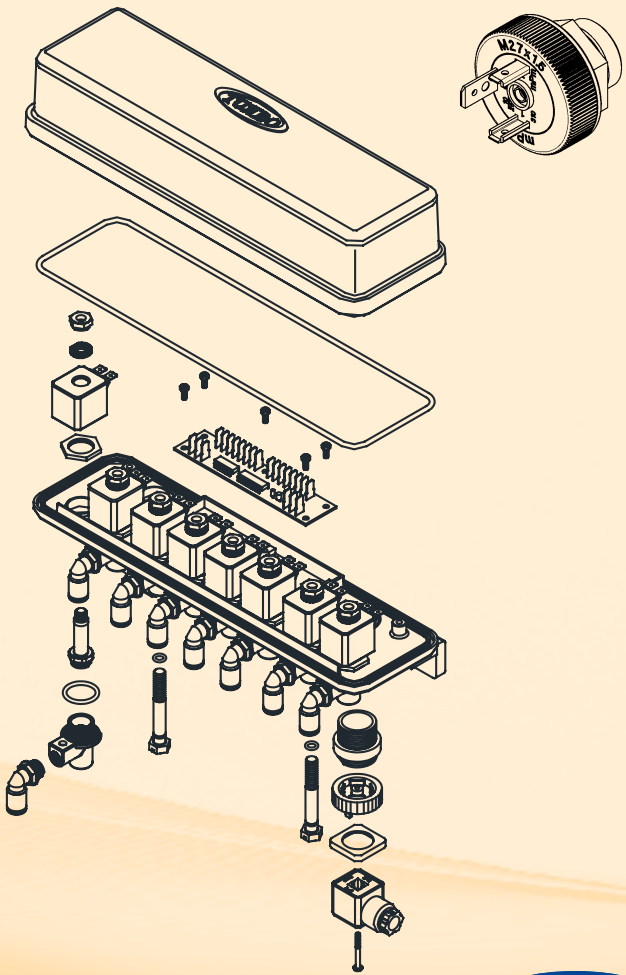
| FEATURES | |
|---|---|
| Fluids | Non-lubricated filtered air |
| Operating pressure | between 0.5 and 7.5 bar |
| Operating temperature | -20°C; +80°C |
| Cover and base: | Die-cast aluminium |
| Pilot | Stainless steel |
| Pilot core | Stainless steel |
| Screws and bolts | Stainless steel |
| Coil insulation | Class H |
| Protection | IP66 |
| Standard voltage | 24VDC (12W) |

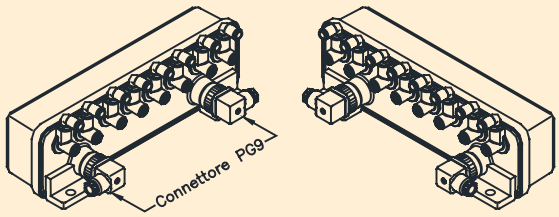
## CONNECTION TO THE PILOT ENCLOSURES FOR VALVES

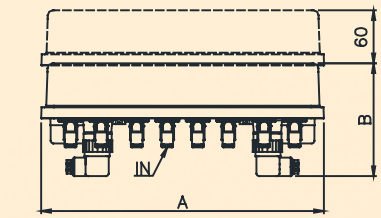
Connect the power supply wiring of the solenoid valves pilots from the connector of the control board terminal board, to the first ERCP enclosure with pilots for driving the pneumatic valves, in input indicated with IN.
Connect the ERCP enclosures in sequence using the connecting cables with the DIN 43650 connectors, to be fixed to the cylindrical mounting plates.
Respecting the IN -> OUT polarity, mount the gaskets to manage the IP sealing of the circuit.

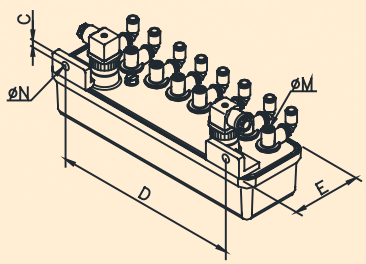



| | |
|---|---|
| 1 | Remote pneumatic valve |
| 2 | Connection pipe between remote pilot and the valve |
| 3 | Enclosure with built-in pilots for driving valves |
| 4 | Connection cabling between the ERCP enclosures |
| 5 | Control unit connection cabling to the enclosure |






| MODEL | A | B | C | D | E | øM | øN | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| ERCP8 | 333 | 136.5 | 10 | 267 | 100 | 1/8" | 11 | 3.3 |

# E4T SEQUENCER IN RCP ENCLOSURE

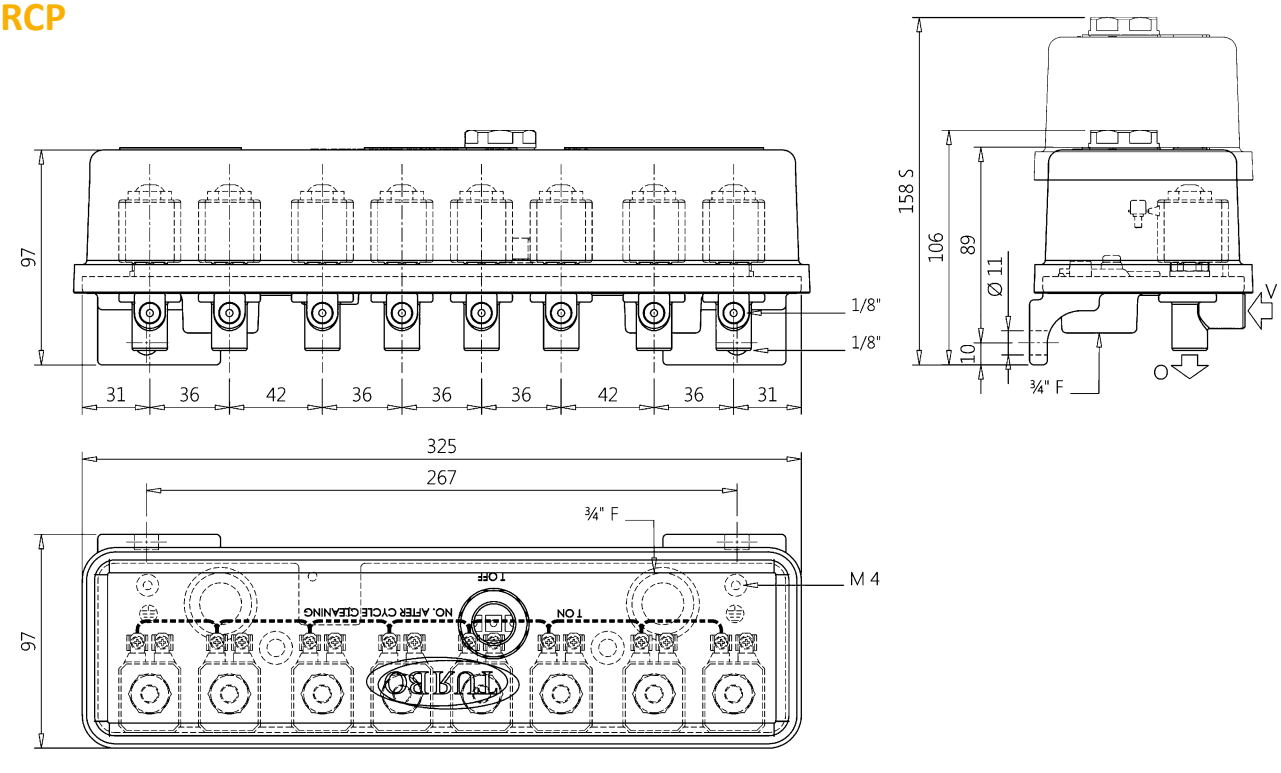
Enclosure for the remote pneumatic activation of pulse valves for dust collector plants, via electro-pilots with direct solenoid activation.

The pilots protected inside the enclosure are isolated from the environment, away from dust, humidity, weather, accidental blows. Up to 8 pilot units (minimum 1) can be housed in each enclosure.

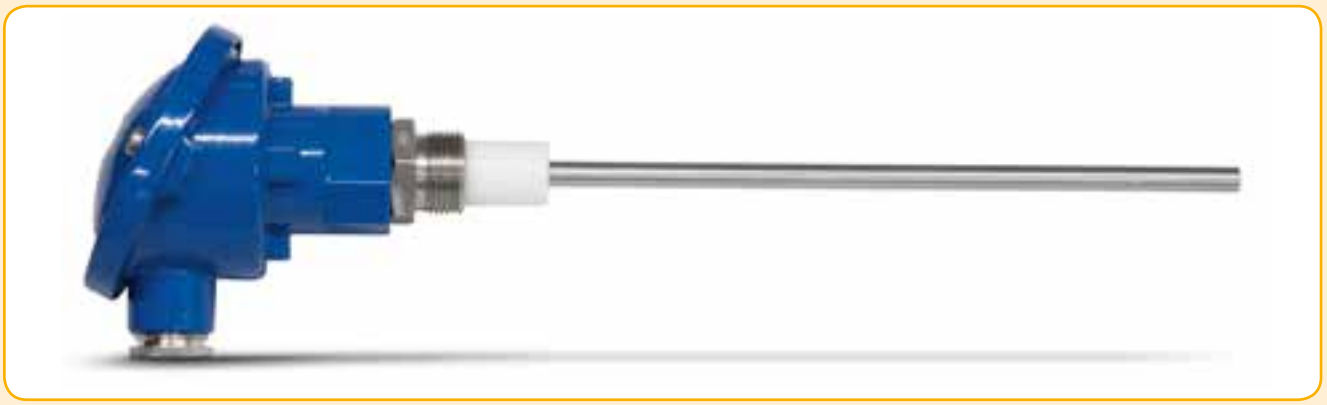
The E4T sequencer board functions at 24 Vdc. The accessory power supply board with transformer is mounted In the RCP enclosures at 115 and 230 Vac.

| FEATURES | |
|---|---|
| Enclosure Support Base | Die-cast Aluminium |
| Enclosure Lid | Die-cast Aluminium |
| Pilot Core | Stainless Steel |
| Screws | Stainless Steel |
| Protection rating from water and dust | IP66 (EN60529) |
| Operating Pressure | 0.5 Bar to 7.5 Bar Maximum |
| Operating Temperature | - 20 °C + 80 °C |
| Environmental Humidity | 0 ÷ 95% Relative non condensing |
| Power Supply Voltage | 24 Vdc 100 Vac 50-60 Hz 240 Vac 50-60 Hz |
| Electric Consumption | 18 Watts at Maximum Load |
| Coil Power Supply Voltage | 24 Vdc 12 Watt |
| Coil Insulation | Class H |
| Maximum Piloting Distance | ≤ 3 Metres guaranteed with Turbo s.r.l. valves |
| Weight of the version with 2 Pilots | 2.15 Kg |
| Total Weight with 8 Pilots | 3.3 Kg |

## RCP



# E9TRB TRIBO SENSOR WITH CHARGE DISPLACEMENT

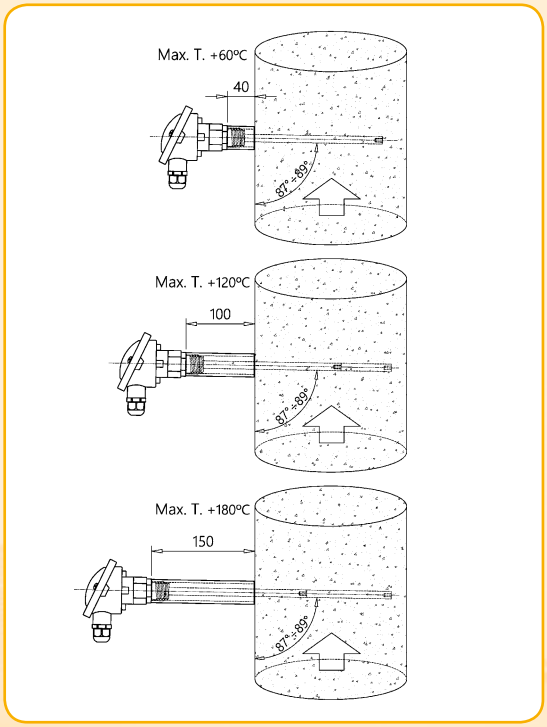


## DESCRIPTION

The charge displacement probe is a measuring instrument with microprocessor, is pre-calibrated, with two open-collector type optically-isolated digital outputs, an Rs485 serial line to configure and/or download data, a PWM 4/20 mA output and brief LED indications for the operating modes. The probe is designed to detect and measure the dust emissions caused by breakage of sleeve filters.

The probe detects the dust in a gaseous fluid, with displacement of the electric charge in the electrode, induced by the electric charges. The quantity of electric charge induced on the electrode is proportional to the amount of dust present in the gaseous fluid. An increase in the concentration of the dusts determines a proportional increase of the signal that reaches the micro-processor.

3201058 Threaded Bush F. 3/4"G L040 Max. T. +60°C
3201060 Threaded Bush F. 3/4"G L100 Max. T. +120°C
3201062 Threaded Bush F. 3/4"G L150 Max. T. +180°C




## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| Power supply | 20 / 30 Vdc |
| Maximum input power | 1W |
| Resolution | 0.1 mg/m3, 0.01 mg/m3 See versions |
| Range settings | Automatic/Manual |
| Dimensions of the dust particles | > 0.3 µm |
| Type of products that can be measured | Particles of dust in gaseous fluid |
| Flow speed | > 4 m/s |
| Measuring principle | Charge displacement |
| Alarm threshold 3 (Fault) | Activated automatically by the test function |
| Alarms outputs | n. 3 optoisolated outputs with solid state relay, protected by self-resetting fuses |
| Outputs maximum current | 100 mA |
| Maximum voltage applicable on the outputs | 48 V |
| Output functions | Can be set normally closed or normally open |
| Probe operating temperature | < 180°C |
| Probe operating pressure | < 2 bar |
| Electrode material | Aisi 304 stainless steel |
| Container material | Aluminium |
| Humidity | < 95% non condensing |
| Environment temperature for the electronics | -20 / +60 °C For higher temperatures mount with spacer |
| Measurable elements | All non-aggressive gases |
| Electric connection | 1 terminal board with 3 poles + 1 terminal board with 6 poles |
| Mechanical connection to the structure | 3/4" G |
| Protection rating | IP 65 |
| Display | n°. 4 LEDs |
| Output PWM 4/20 mA | Active output, optoisolated. Max load 500 Ohm |
| Serial output | RS485 with two wires |

## OPTIONS UPON REQUEST

- Zone 22 ATEX Certification.
- Surface treatment in Teflon PTFE for heavy duty use, direct exposure to weather conditions, acid exhaust fumes.

## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

# E9T CONTROL UNIT FOR E9TRB TRIBO SENSOR

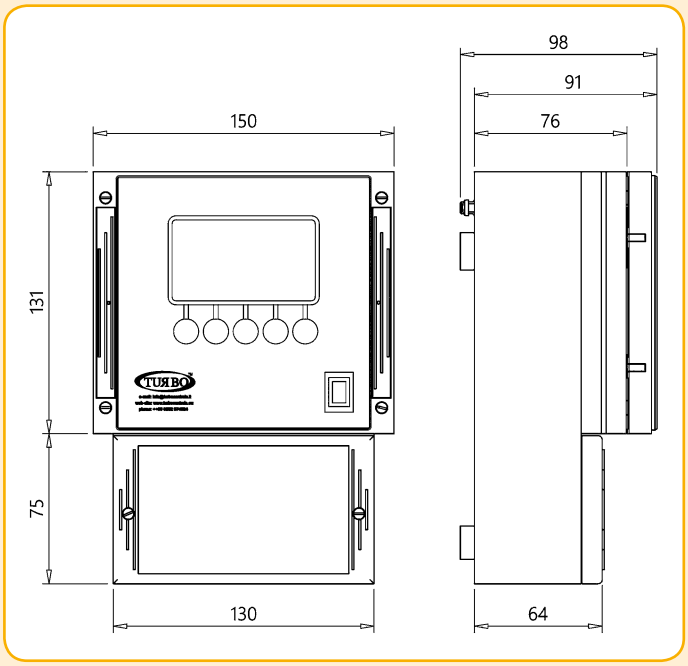
| TECHNICAL SPECIFICATIONS | |
|---|---|
| Power supply voltage | 115 Vac 50-60 Hz ± 10 %<br>230 Vac 50-60 Hz ± 10 % |
| Power supply voltage upon request | 24 Vac ± 10 %<br>24 Vdc ± 10 % |
| Electric consumption | 3 Watts at maximum load |
| Outputs proportional to the value of 4 ÷ 20 mA | 1 |
| Alarm Relays | 3 peak, pre-alarm, alarm |
| 485 type serial transmission interfaces with Modbus RTU protocol | 1 per probe connection<br>1 Per PC – PLC - SV |
| Display | Backlit monochromatic graphic LCD B/N 128 x 64 pixel |
| Operating temperature | -10 °C - 55 °C |
| Storage temperature | -20 °C - 60 °C |
| Environmental humidity | 0 ÷ 95% Relative non condensing |
| Casing | Base in ABS<br>Lid in Polycarbonate |
| Protection rating from water and dust | IP65 DIN EN 60529 |

## DESCRIPTION

The charge displacement probe is a measuring instrument with micro-processor, the E9T control unit is used to set, manage and display the signals coming from the electric tribo sensor.

The probe detects the dust in a gaseous fluid, with displacement of the electric charge in the electrode, induced by the electric charges. The quantity of electric charge induced on the electrode is proportional to the amount of dust present in the gaseous fluid.

An increase in the concentration of the dusts determines a proportional increase of the signal that reaches the micro-processor. The signal is interpreted and displayed on the control unit screen.




## OPTIONS UPON REQUEST

- Cable glands for power supply input.
- Zone 22 ATEX Certification.

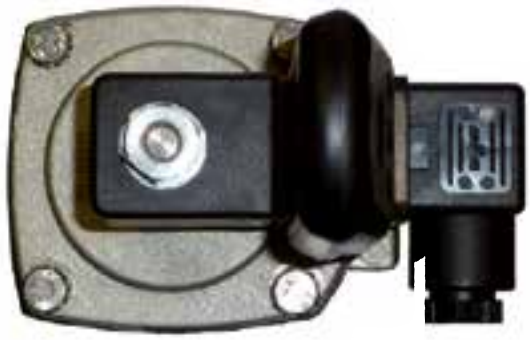
## REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

# TIMED CONNECTOR

## 4401002 024 VAC VDC - 4401004 115 230 VAC

**TECHNICAL FEATURES**

| | |
|---|---|
| Pause | 0.1 sec to 99 hours, settable |
| Activation time | 0.1 sec to 99 hours, settable |
| Manual setting | Yes, micro-switch |
| Power supply range | 024-VAC-VDC<br>115-230 VAC |
| Current consumption | 7 mA max |
| Operating temperature | -10°C - +55°C |
| Protection rating | IP65 NEMA 4 |
| Container material | FR ABS |
| Type of connection | EN175301-803 (ex DIN 43650A) |
| Indicators | LED |
| Standard design | VDE 01 10C |

Analogue version of the timer available with
power supply range 024÷240 Vac Vdc with code 4401006

# MATRIX ELECTRICAL SYSTEM

The Matrix electrical System is designed to reduce wiring time and costs. Matrix allows for an easy connection between the electronic control unit and the valves.

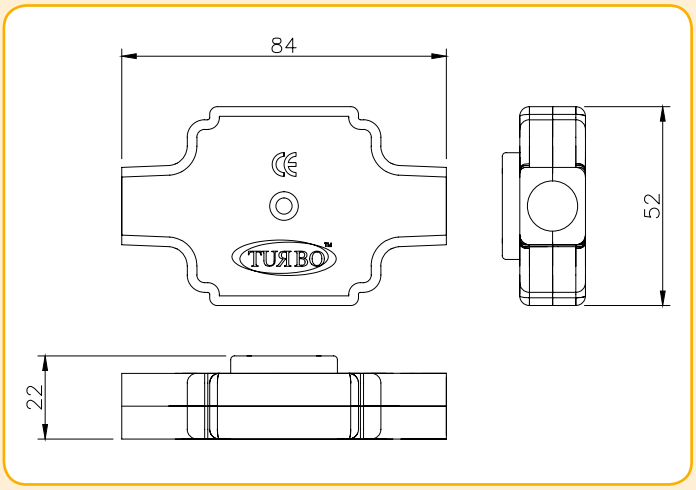
## TECHNICAL FEATURES

| | |
|---|---|
| Connectors | Up to 16 for every single cable |
| Cable diameter | 8 mm |
| Protection rating | IP65 |
| Operating temperature | -20°C / +80°C |

## CE - UL - CUL CERTIFICATIONS

## FEATURES

The Matrix system consists of a multicore cable where all the prewired and printed connectors are connected. These can have different pitches, according to customer requirements.
The terminal cable can be provided either with free cables to be connected to any type of electronic device or with a connector to be connected directly to our device.




1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

MTX= Matrix system

01-00= number of connectors

P= connector pitch

001-999= fixed connector pitch (mm)
M0000-M9999= custom pitch with reference to drawing No. M...

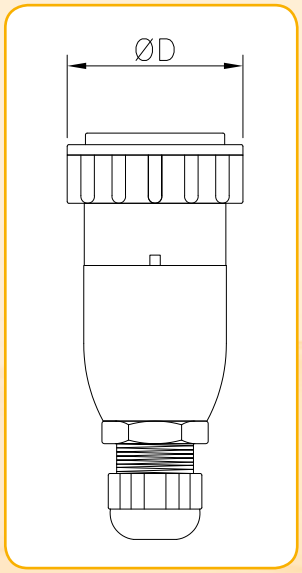
M= terminal cable

01-99= terminal cable length (m)

P= terminal cable connected to the connector
W= free terminal cable

## CONNECTOR SIZE

| | |
|---|---|
| 12 outputs | ØD 34 mm |
| 16 outputs | ØD 44.5 mm |



# ACCESSORIES


PRESSURE GAUGE

RELIEF VALVE

PILOT UNIT

COIL+CONNECTOR

COIL FOR ENCLOSURES

SILENCER

MANUAL DRAIN VALVE

AUTOMATIC DRAIN VALVE

MULTI-TRIGGER NOZZLE

PLUGS

COUNTER NUTS

PRESSURE ADJUSTMENT FILTERS

FILTER PLUG

DIAPHRAGM

NOTES

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