



## MODELLO MTIR160SPVC MODEL MTIR160SPVC

### CODICE

CODE

MTIR160SPVCG1-2

0/10

B

1

2

3



### 1 CONNESSIONE AL PROCESSO

PROCESS CONNECTION

|                     | Codice/Code |
|---------------------|-------------|
| 1/2" gas cilindrico | G1/2        |
| 1/2" gas conico     | R1/2        |
| 1/2" NPT            | N1/2        |
| Altro/Another       | *           |

### 3 UNITÀ DI MISURA

UNIT

|                    | Codice/Code        |
|--------------------|--------------------|
| Bar                | B                  |
| Bar/Psi            | B/P                |
| Psi                | P                  |
| Kpa                | K                  |
| Mpa                | M                  |
| Kg/cm <sup>2</sup> | KG/CM <sup>2</sup> |
| Altro / Another    | *                  |

### 2 SCALA

RANGE

| RANGE     | Codice Code | RANGE           | Codice Code |
|-----------|-------------|-----------------|-------------|
| -1... 0   | -1/0        | 0... 12         | 0/12        |
| -1... 0.6 | -1/0.6      | 0... 16         | 0/16        |
| -1... 1.5 | -1/1.5      | 0... 20         | 0/20        |
| -1... 3   | -1/3        | 0... 25         | 0/25        |
| -1... 5   | -1/5        | 0... 40         | 0/40        |
| -1... 9   | -1/9        | 0... 60         | 0/60        |
| -1... 15  | -1/15       | 0... 100        | 0/100       |
| -1... 24  | -1/24       | 0... 160        | 0/160       |
| 0... 0.6  | 0/0.6       | 0... 200        | 0/200       |
| 0... 1    | 0/1         | 0... 250        | 0/250       |
| 0... 1.6  | 0/1.6       | 0... 315        | 0/315       |
| 0... 2.5  | 0/2.5       | 0... 400        | 0/400       |
| 0... 4    | 0/4         | 0... 600        | 0/600       |
| 0... 6    | 0/6         | 0... 1000       | 0/1000      |
| 0... 10   | 0/10        | Altro / Another |             |

Manometro a molla bourdon con separatore a membrana in PVC

Diametro cassa: 160 mm

Esecuzione: Radiale

Normativa: EN 837-1

Classe di precisione: 1%

Attacco al processo: Acciaio Inox 316L

Elemento di misura: Acciaio Inox 316L

Movimento: Acciaio Inox 316L

Quadrante: In alluminio a fondo bianco, numerazione in nero con fermo sullo zero

Indice: in alluminio di colore nero

Trasparente: Vetro multistrato di sicurezza

Materiale della cassa e anello: Acciaio Inox

Foro di scarico posteriore

Bourdon tube pressure gauge with diaphragm

Nominal Size: 160 mm

Bottom

Design: EN 837-1

Accuracy Class: 1%

Process connection: Stainless Steel 316L

Pressure element: Stainless Steel 316L

Movement: Stainless Steel 316L

Dial: White aluminium with black marks

Black anodized aluminium

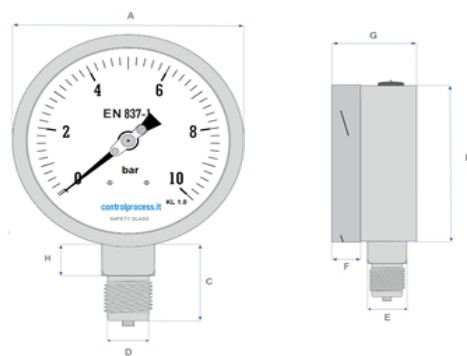
Window: Safety Glass

Case and Ring: Stainless Steel

With blow-out device at case circumference and on the back of the case



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| +/- 0.1 | A     | B    | C  | D     | E     | F   | G    | H  |
|---------|-------|------|----|-------|-------|-----|------|----|
| DN40    | 46.9  | 41   | 22 | 9.55  | 10.9  | 4.7 | 25.6 | 12 |
| DN50    | 57.6  | 50.9 | 29 | 12.95 | 13.95 | 6.3 | 29.6 | 16 |
| DN63    | 68    | 61.8 | 29 | 12.95 | 13.95 | 6.3 | 29.6 | 16 |
| DN100   | 100.8 | 98.5 | 41 | 20.8  | 22    | 17  | 48.7 | 20 |
| DN160   | 160   | 158  | 44 | 20.8  | 22    | 17  | 49.8 | 20 |

| CONDIZIONI DI ESERCIZIO                                                                                                     | OPERATING CONDITIONS                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Temperatura ambiente: -30 ... +60°C                                                                                         | Ambient Temperature: -30 ... +60°C                                                                        |
| Temperatura fluido di processo: -30 ... +120°C                                                                              | Process fluid temperature: -30 ... +120°C                                                                 |
| Deriva termica: massimo $\pm 0.3\%$ dell'ampiezza di campo ogni 10°C di differenza dalla temperatura di riferimento di 20°C | Thermal drift: maximum $\pm 0.3\%$ of span every 10°C of deviation from the reference temperature of 20°C |
| Pressione d'esercizio costante: 75% del fondo scala                                                                         | Operating pressure constant: 75% del F.S.V.                                                               |
| Pressione d'esercizio variabile: 60% del fondo scala                                                                        | Operating pressure changeable: 60% F.S.V.                                                                 |
| Sovrapressione fino a 60 bar: 25% del fondo scala                                                                           | Overpressure up to 60 bar: 25% F.S.V.                                                                     |
| Sovrapressione > 100 bar: 15% del fondo scala                                                                               | Overpressure from > 100 bar: 15% F.S.V.                                                                   |
| Grado di protezione IP65 conforme EN 60529 / IEC 60529                                                                      | Protection EN 60529 / IEC 60529 IP65                                                                      |

### OPZIONI

- Materiale Cassa e Anello in AISI 316L
- Flangia a 3 fori in Acciaio Inox

### OPTION

- Case and Ring material AISI 316 L
- Front Flange 3 hole Stainless Steel

## CERTIFICAZIONI

### CERTIFICATE

- **Certificato di taratura conforme a ISO/IEC 17025 3.1b**  
Calibration report ISO / IEC 17025 3.1b
- **Certificato taratura organismo accreditato nazionale**  
National Accredited Calibration Certificate
- **Certificato origine camera commercio**  
Certificate of origin Chamber of Commerce
- **Certificazione di prova 2.2 conforme EN 10204 (produzione stato dell'arte, precisione indicazione)**  
Certificate 2.2 EN 10204
- **Certificazione 3.1 conforme ad EN 10204 (cert. Materiale)**  
Certificate 3.1 EN 10204 (material certificate)

# Diaphragm pressure gauge guard

## MTIR160SPVC

Nominal size DN 20–25  
Pressure PN 10 bar



### Features

- Pressure measurement up to 10 bar
- EPDM diaphragm with PTFE coating on the side in contact with the medium
- Reliable protection of pressure gauges from aggressive medium types
- Reliable pressure transmission due to generously dimensioned diaphragms
- Practical connection points with spigots and threads

### Additional options on demand

- Free of surface disturbing substances
- NSF certification
- PFA permeation stop films
- Installation of different pressure gauges

### Attention

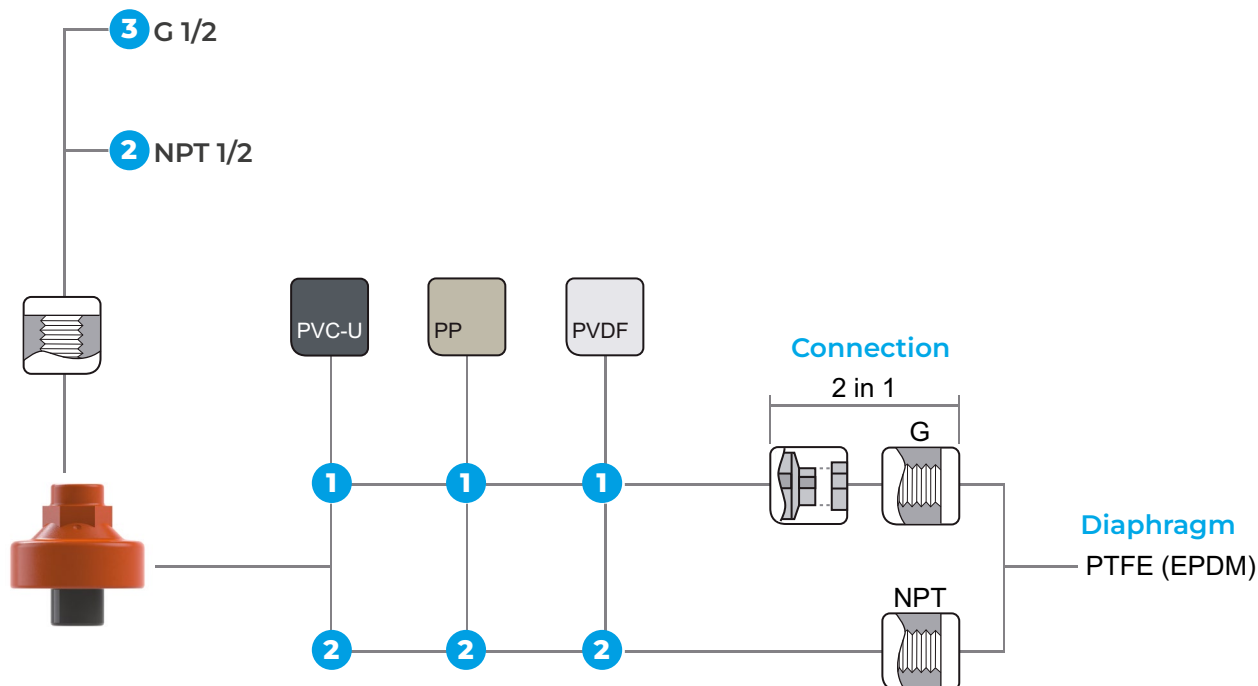
Diaphragm pressure gauge guard free of surface disturbing substances is filled with demineralized water

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## Pictogram Diaphragm pressure gauge guard MTIR160SPVC



**Diffusion stop** for medium types prone to permeation:

PFA permeation stop film

Available versions: PVC-U | PVDF

● available  
○ not available

### Basic Nominal Sizes:

|      |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| DN 8 | DN 10 | DN 15 | DN 20 | DN 25 | DN 32 | DN 40 | DN 50 | DN 65 | DN 80 | DN 100 | DN 125 | DN 150 | DN 200 | DN 250 | DN 300 | DN 350 | DN 400 |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|

### Connection Material (process connection)

spigot **DIN\*** + female thread G  
female thread (reinforced) **NPT**  
female thread **G**

\*socket welding

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## Diaphragm pressure gauge guard MTIR160SPVC

### Use

- Chemical plant engineering
- Electroplating plants

### Application

- for corrosion-free pressure transmission between the medium and the measuring instrument

### Pressure transmission

- The system pressure is transmitted to the measuring instrument by a large diaphragm via transmitter fluid

### Flow medium

- Neutral and aggressive fluids free of solid particles, provided that the valve components coming into contact with the fluids are resistant at the operating temperature according to the ASV resistance guide

### ASV-Stübbe resistance guide

- [www.asv-stuebbe.de/pdf\\_resistance/300051.pdf](http://www.asv-stuebbe.de/pdf_resistance/300051.pdf)

### Nominal pressure (H<sub>2</sub>O, 20 °C)

- PN 10 bar

### Medium temperature

- See graphics „Pressure/temperature diagram“

### Operating pressure

- See graphics „Pressure/temperature diagram“

### Size

- DN 20–25

### Bonnet

- PP, glass fiber reinforced

### Bottom section

- PVC-U, PP, PVDF

### Sealing element

- PTFE, PFA

### Diaphragm

- PTFE (EPDM diaphragm with PTFE coating on the side in contact with the medium)
- Optional: PFA permeation stop film

### Transmitter fluid

- Glycol (ethylene glycol)
- Antifreeze (e.g. glysantine or Aral Antifreeze)
- Demineralized water: When used for potable water or for free of surface disturbing substances

### Device connection

- See pictogram

### Pressure gauge connection

- Bonnet, internal thread G 1/4", G 1/2", NPT 1/4", NPT 1/2"
- Rear connection G1/4" – only for standard pressure gauge design

### Mounting position

- As required, preferably measuring instrument at the top

### Color

#### Bonnet:

- orange, RAL 2004

#### Bottom section:

- PVC-U: gray, RAL 7011
- PP: gray, RAL 7032
- PVDF: opaque, yellowish-white

### Accessories

#### Pressure gauge, standard version:

- Housing: POM
- Measuring system: Copper alloy

#### Pressure gauge chemical version (undamped, damped):

- Housing: CrNi steel (1,4571)
- Measuring system: CrNi steel (1,4571)

#### Pressure transducer

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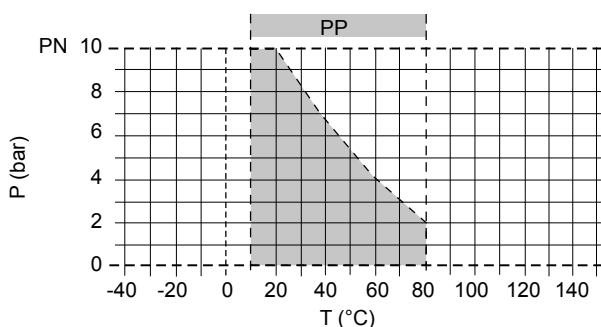
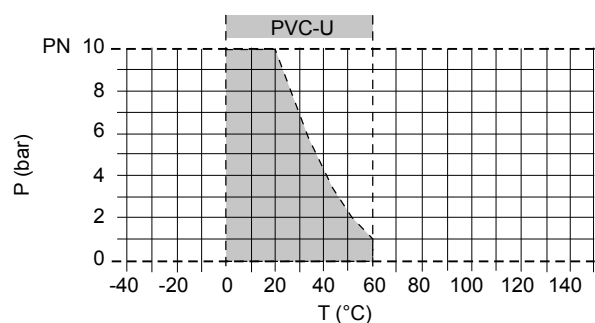
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# Diaphragm pressure gauge guard MTIR160SPVC

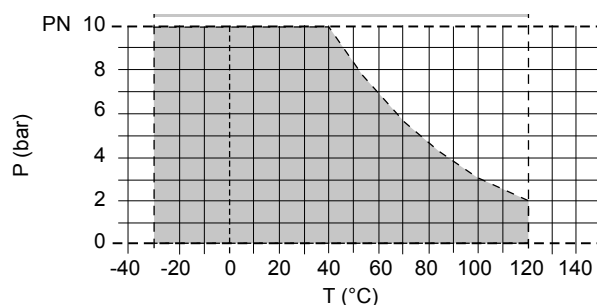
## Pressure/temperature diagram



The pressure/temperature limits of the materials are valid for the stated nominal pressures and a service life of 25 years.

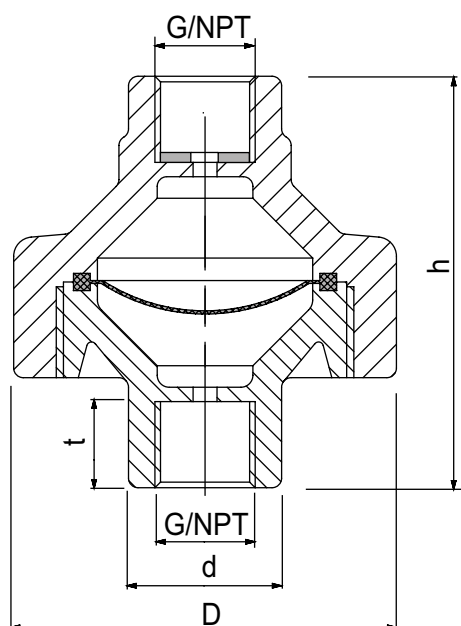
These values are guide values for flow medium types which do not negatively impact the physical and chemical characteristics of the valve material. It may be necessary to take diminution factors into consideration.

The operating life of the wear parts depends on the conditions of use.



## Description

|   |                    |
|---|--------------------|
| P | Operating pressure |
| T | Temperature        |



## Connection spigot end

| d (mm)   | 25   | 32   |
|----------|------|------|
| DN (mm)  | 20   | 25   |
| G (inch) | 1/4  | 1/2  |
| D        | 80.0 | 80.0 |
| d        | 25.0 | 32.0 |
| G*       | 1/4  | 1/2  |
| h        | 86.0 | 86.0 |
| t        | 18.0 | 22.0 |

all dimensions in mm / \* dimensions in inch

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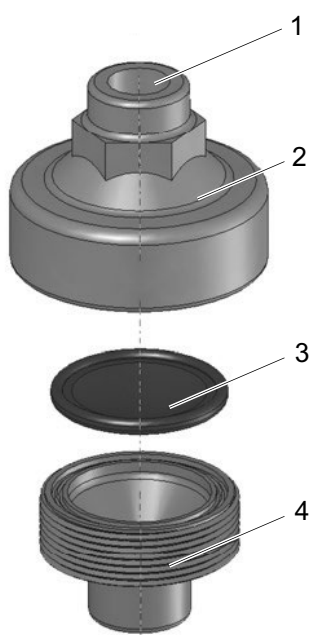
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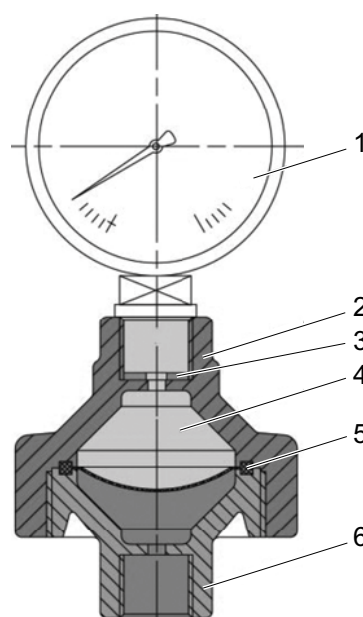
# Diaphragm pressure gauge guard MTIR160SPVC

## Structure



| Position | Designation                |
|----------|----------------------------|
| 1        | Connection, pressure gauge |
| 2        | Bonnet                     |
| 3        | Separating diaphragm       |
| 4        | Bottom section             |

## Components



| Position | Designation          |
|----------|----------------------|
| 1        | Pressure gauge       |
| 2        | Bonnet               |
| 3        | Flat sealing         |
| 4        | Transmitter fluid    |
| 5        | Separating diaphragm |
| 6        | Bottom section       |