

# METAL DIAPHRAGM SHUT OFF VALVE FOR USING IN INDUSTRIAL GAS SUPPLY SYSTEMS

## - VTLF - LOW FLOW RANGE



4-port valve  
1 x inlet; 3 x outlet



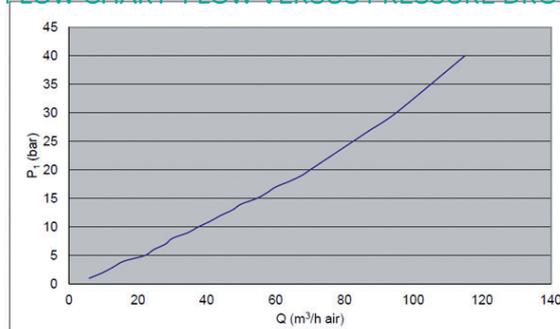
4-port metal diaphragm shut off valve used in supply systems for industrial, inert, flammable, oxidizing gases and gas mixtures. Not usable for corrosive or toxic gases and gas mixtures.

### SPECIAL FEATURES:

- > Metal diaphragm valve
- > Compact design
- > Designed and approved in accordance with relevant sections of EN ISO 10297:2015
- > O<sub>2</sub>- ignition test regarding EN ISO 10297 for main shut off valve
- > Electrostatic chargeability test
  - fulfill requirements according DIN EN ISO 80070-36; IEC TS 60079-32-1 and German TRGS 727
  - usable in EX- areas zones 1 and 2 for gases with explosion risk group I; IIA; IIB; IIC

TECHNICAL DATA	
<b>Working temperature:</b>	-20°C to + 60°C
<b>Inlet/Outlet ports:</b>	NPT 1/4" female
<b>Max. working pressure:</b>	300 bar
<b>Kv-value:</b>	0,25
<b>Seat diameter:</b>	5 mm
<b>Leakage rate seat:</b>	less than 6 cm <sup>3</sup> /h (20°C; 1,013 bar absolut) Compressed Air
<b>Leakage rate outside:</b>	less than 6 cm <sup>3</sup> /h (20°C; 1,013 bar absolut) Compressed Air
<b>Filter inlet:</b>	100 µm mesh
<b>Filter outlet ports:</b>	100 µm mesh
<b>Mounting holes:</b>	M6
<b>Weight:</b>	0,62 kg
<b>Material gas wetted parts:</b>	
<b>Valve body:</b>	BRASS (2.0401.26)
<b>Valve diaphragm:</b>	1 x Hastelloy (2.4819), 1 x Elgiloy (2.4711)
<b>Valve seat:</b>	PCTFE
<b>Valve popet:</b>	BRASS (2.0401.26)
<b>Tests in production:</b>	Pressure test with dry air (ISO 8573 [1:2:2]) of each item Seat leakage test with dry air (ISO 8573 [1:2:2]) of each item Test of functionality of each item
<b>Approvals during development:</b>	Type test accordance with relevant sections of EN ISO 10297:2015 O <sub>2</sub> ignition test regarding EN ISO 10297 for main shut of valve Electrostatic chargeability test - fulfill requirements according DIN EN ISO 80070-36; IEC TS 60079-32-1 and German TRGS 727 - usable in EX- areas zones 1 and 2 for gases with explosion risk group I; IIA; IIB; IIC

### FLOW CHART- FLOW VERSUS PRESSURE DROP:



DRAWINGS

**PORT 7**  
**PORT 5**  
**PORT 3**  
**PORT 1**

$\varnothing 50$

**TOP VIEW**

**BOTTOM VIEW**

30

2 X M6  
(6,5 MM DEEP)

approx. 78

19

**ORDERING INFORMATION**

**VTLF X X XX XXXX XXXX XXXX XXXX**

**PORTING CODE:**  
 R - RIGHT INLET

**\*GAS TYPE:**  
 S - STANDARD GASES

**INLET PRESSURE:**  
 F1 - 130 BAR (Brass fittings only)  
 GX - 300 BAR (SS fittings only)  
 Basic valve rated for 300 bar

**PORT 7**  
 SEE THE LIST OF CONNECTIONS

**PORT 5**  
 SEE THE LIST OF CONNECTIONS

**PORT 3**  
 SEE THE LIST OF CONNECTIONS

**PORT 1**  
 SEE THE LIST OF CONNECTIONS

**EXAMPLE: VTLFRSGXN14FN14FN14FN14F**

**LIST OF CONNECTIONS**

- N14F - NPT1/4" FEMALE
- 0001 - WITHOUT (PLUGGED)
- M06B - COMPRESSION FITTING  $\varnothing$  6MM BRASS
- M08B - COMPRESSION FITTING  $\varnothing$  8MM BRASS
- M10B - COMPRESSION FITTING  $\varnothing$  10MM BRASS
- M12B - COMPRESSION FITTING  $\varnothing$  12MM BRASS
- M06S - COMPRESSION FITTING  $\varnothing$  6MM SS
- M08S - COMPRESSION FITTING  $\varnothing$  8MM SS
- M10S - COMPRESSION FITTING  $\varnothing$  10MM SS
- M12S - COMPRESSION FITTING  $\varnothing$  12MM SS
- IX4B - COMPRESSION FITTING  $\varnothing$ 1/4" BRASS
- IX6B - COMPRESSION FITTING  $\varnothing$ 3/8" BRASS
- IX8B - COMPRESSION FITTING  $\varnothing$ 1/2" BRASS
- IX4S - COMPRESSION FITTING  $\varnothing$ 1/4" SS
- IX6S - COMPRESSION FITTING  $\varnothing$ 3/8" SS
- IX8S - COMPRESSION FITTING  $\varnothing$ 1/2" SS

**\*GAS TYPE**  
 DEFINED BY PRODUCT LINE AND TYPE  
 (CHECK AVAILABLE GAS TYPE IN DATASHEET)



Link to product configurator