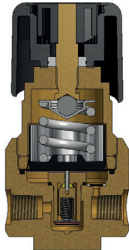


# SINGLE STAGE PRESSURE LINE REGULATOR IN INDUSTRIAL GAS SUPPLY SYSTEMS

## - LTLM - LOW FLOW RANGE



4-port line regulator  
2 x inlet; 2 x outlet



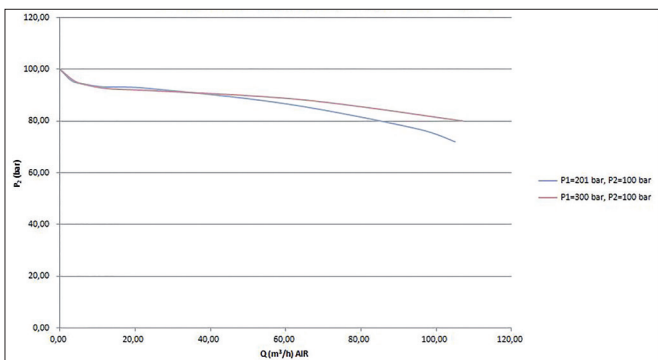
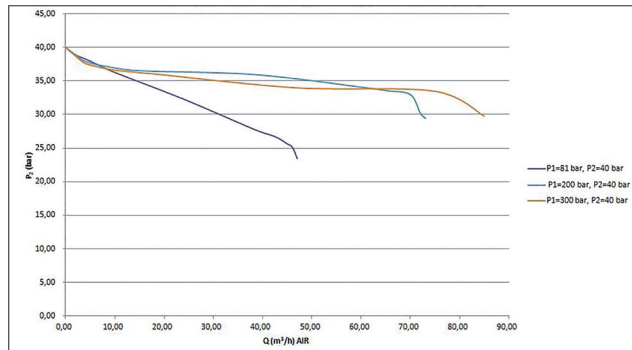
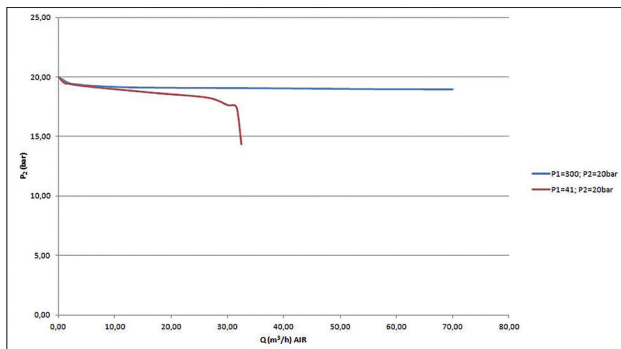
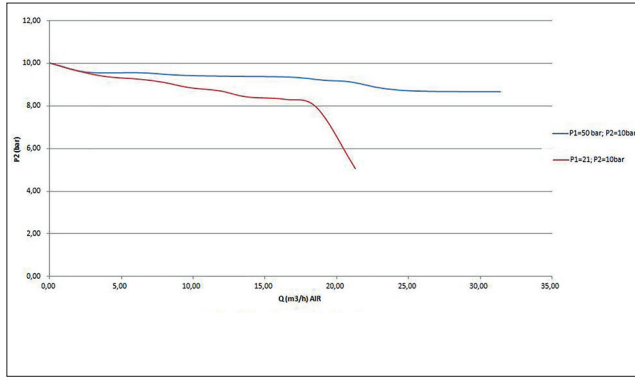
4- port single stage pressure line regulator used in supply systems for industrial, inert, flammable, oxidizing gases and gas mixtures. Not usable for corrosive or toxic gases and gas mixtures.

### SPECIAL FEATURES

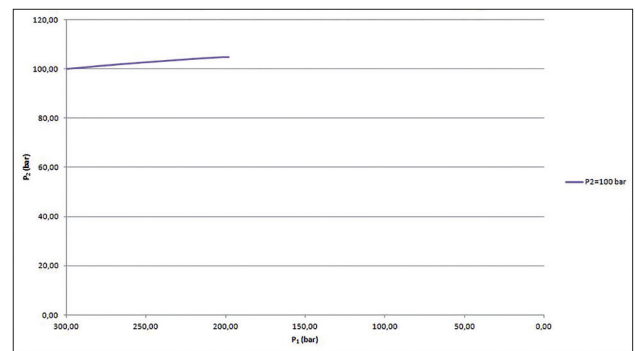
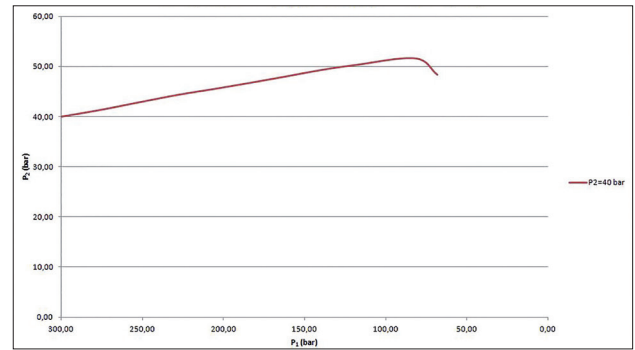
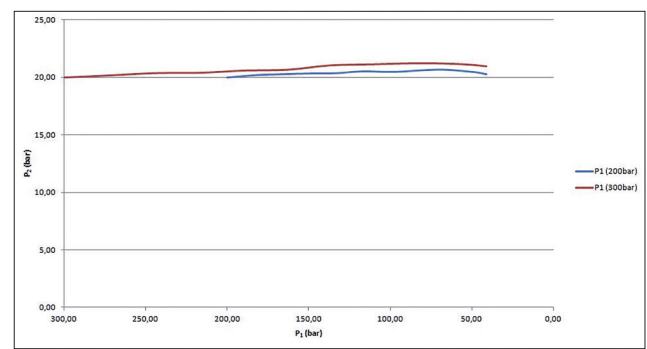
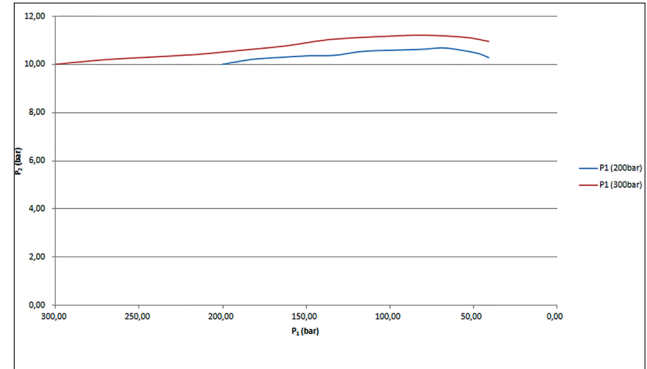
- > Metal diaphragm regulator
- > Compact design
- > Single stage version
- > Excellent pressure adjustment
- > Designed and approved regarding ISO7291 (including O<sub>2</sub>- ignition test)
- > Relief valve in delivery pressure side available
- > Electrostatic chargeability test
  - fulfill requirements 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 temperatures:</b>	-20°C to + 60 °C
<b>Inlet/outlet ports:</b>	NPT ¼" female
<b>Leakage rate seat:</b>	less than 50 cm <sup>3</sup> /h (23°C; 1,013 bar absolut) Compressed Air
<b>Leakage rate outside:</b>	less than 10 cm <sup>3</sup> /h (23°C; 1,013 bar absolut) Compressed Air
<b>Filter inlet:</b>	10 µm mesh
<b>Filter outlet ports:</b>	100 µm mesh
<b>Mounting holes:</b>	2xM6
<b>Materials gas wetted parts:</b>	
<b>Regulator body:</b>	BRASS (2.0401.26)
<b>Regulator diaphragm:</b>	Hastelloy (2.4819)
<b>Regulator seat:</b>	PCTFE
<b>Regulator popet:</b>	BRASS (2.0371)
<b>Pressure rates in regulator:</b>	
<b>Max. inlet pressure:</b>	300 bar
<b>Delivery pressures:</b>	10 bar, 20 bar, 40 bar, 100 bar
<b>Cracking pressure relief valves:</b>	15,4 bar (10 bar); 30,8 bar (20 bar); 61,6 bar (40 bar); 154 bar (100 bar)
<b>Tests in production:</b>	Pressure test with dry air (ISO 8573 [1:2:2]) of each item regarding ISO 7291 5.2.7.2 Seat leakage test with dry air (ISO 8573 [1:2:2]) of each item regarding ISO 7291 5.2.7.3 Test of functionality of each item
<b>Approvals during development:</b>	Type test regarding ISO 7291 O <sub>2</sub> ignition test regarding ISO 7291 Approval for all none metallic O <sub>2</sub> - wetted parts which were not part of O <sub>2</sub> ignition test 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 CURVES



DYNAMIC EXPANSION CURVES



P1 - inlet pressure, P2- outlet pressure

DRAWINGS

**FRONT VIEW**  
 PROCESS IN (left), PROCESS IN (right), PROCESS OUT (top), RELIEF VALVE OUTLET (right)  
 Dimensions: approx. 111 (height), approx. 103 (width), 19 (inlet offset), 55 (diameter)

**BOTTOM VIEW**  
 PROCESS IN (left), PROCESS IN (right), 2 X M6 (6.5 MM DEEP) (top), 30 (width)

**ORDERING INFORMATION**

**EXAMPLE:** LTLMX X X XX XX XXXX XXXX XX XXXX

**STAGES:**  
 S - SINGLE STAGE

**GAS TYPE:**  
 S - STANDARD GASES

**INLET PRESSURE:**  
 F4 - 60 BAR  
 F5 - 100 BAR  
 G3 - 300 BAR

**OUTLET PRESSURE:**  
 D2 - 10 BAR  
 D3 - 20 BAR  
 E1 - 40 BAR  
 F2 - 100 BAR

**RELIEF CONNECTION:**  
 0001 - WITHOUT (PLUGGED)  
 \*SEE THE LIST OF CONNECTIONS

**SAFETY DEVICE:**  
 00 - WITHOUT (NOT AFTERMALLE)  
 01 - WITHOUT (PLUGGE)  
 RV - PRESSURE RELIEF VALVE

**PROCESS OUTLET CONNECTION:**  
 \*SEE THE LIST OF CONNECTIONS

**PROCESS INLET CONNECTION:**  
 \*SEE THE LIST OF CONNECTIONS

**\*LIST OF CONNECTIONS**

- N14F - NPT1/4" FEMALE
- M06B - COMPRESSION FITTING Ø 6MM BRASS
- M08B - COMPRESSION FITTING Ø 8MM BRASS
- M10B - COMPRESSION FITTING Ø 10MM BRASS
- M12B - COMPRESSION FITTING Ø 12MM BRASS
- M06S - COMPRESSION FITTING Ø 6MM SS
- M08S - COMPRESSION FITTING Ø 8MM SS
- M10S - COMPRESSION FITTING Ø 10MM SS
- M12S - COMPRESSION FITTING Ø 12MM SS
- IX4B - COMPRESSION FITTING Ø1/4" BRASS
- IX6B - COMPRESSION FITTING Ø3/8" BRASS
- IX8B - COMPRESSION FITTING Ø1/2" BRASS
- IX4S - COMPRESSION FITTING Ø1/4" SS
- IX6S - COMPRESSION FITTING Ø3/8" SS
- IX8S - COMPRESSION FITTING Ø1/2" SS

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



Link to product configurator