

XYP 3: Low-pressure test unit

Areas of application

Operational testing and modification of measuring range of controllers in the RLP, RLE and ASV ranges.

Features

- Simulation of actual value and setpoint
- Display of control output pressure
- Adjustable low-pressure source enables simulation of actual values of other low-pressure units
- Plastic housing suitable for wall or top-hat rail mounting (rail EN 60715)
- Compressed-air connections with Rp 1/8" female thread
- Complies with directive 97/23/EC Art. 3.3 on pressure equipment

Technical description

- Supply pressure 1.3 bar $\pm$ 0.1
- Setting accuracy 5%

Type	Actual-value signal x_i Low-pressure source	Setpoint signal X_s Volume flow	Weight kg
XYP 3 F001	5...500 Pa ¹⁾	0,2...1,0 bar $\triangleq$ 20...100% $\checkmark$	0,4
XYP 3 F002	1...100 Pa	0,2...1,0 bar $\triangleq$ 20...100% $\checkmark$	0,4
Pressure supply ²⁾	1,3 bar $\pm$ 0,1	Connection diagram	A03209
Output pressure	0...1,3 bar	Dimension drawing	M297503
Air consumption F001	48 l _n /h	Fitting instructions F001	MV 7327
F002	76 l _n /h	F002	MV 7339
Setting accuracy x_i ³⁾	5%		

Accessories

0297502 000 Bag with fitting material

- 1) Conversion kit (1...100 Pa) included.
- 2) See Section 60 on regulations concerning the quality of supply air, especially at low ambient temperature.
- 3) For more accurate testing, check the setting x_i with a fine-pressure meter.
The percentage stated is based on 100% volume flow.

Operation

The whole functional capability of this test unit is divided into several separate functions. These are described in the diagram on the front plate.

Actual-value simulation x_i

Using the x_i adjuster, the low-pressure signal (1...100 Pa for RLP 100 or 5...500 Pa for RLP 10, 20) can be created at the (+) connection. For accurate adjustment, a fine-pressure meter can be connected up to the (–) connection.

Setpoint simulation X_s

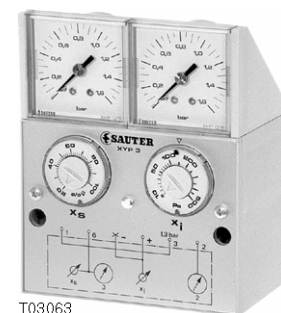
Using the X_s adjuster, the setpoint signal can create 20...100% of the volume flow (corresponds to 0,2...1.0 bar) at connection 6 and indicate this on the left-hand manometer.

Output pressure p_2

The controller output pressure p_2 (control signal) can be indicated, via connection 2, directly on the right-hand manometer.

Supply pressure p_1

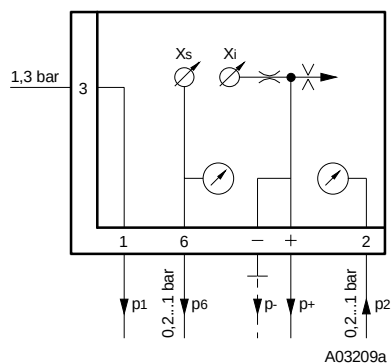
The test unit (connection 3) and the test object (connection 1) both have a supply pressure of 1,3 bar. Connection 1 must be closed off if the test object is electrical.



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Connection diagram

F001: $p+ = 5...500 \text{ Pa}$
F002: $p+ = 1...100 \text{ Pa}$



- 3 = supply pressure 1,3 bar
- 1 = supply pressure to the test object
- 2 = output pressure from the test object
- 6 = setpoint X_s , 0,2...1,0 bar
- = connection for fine-pressure meter
- + = actual value x_i (low pressure)

Dimension drawing

