

TECNO BASIC

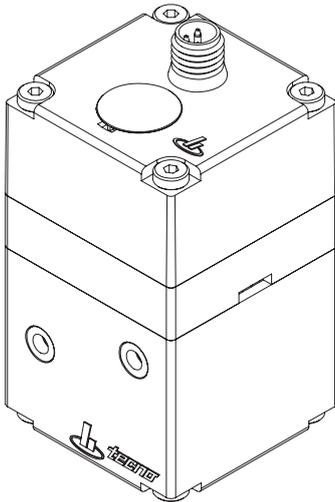
Piezo-controlled pneumatic pressure regulator,
electronically controlled

Technical Data

EN MET



HOERBIGER



GENERAL PROPERTIES

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GENERAL PROPERTIES

Type	PRE-U - Target value via voltage, PRE-I - Target value via current
Function	Proportional 3/2-way NC
Actuation type	Piezoelectric pilot
Constructive structure	Seat valve
Connection type	Flange ¹⁾
Weight	0.100 kg
Installation position	Any
Protection type	IP 30 (DIN EN 60529 A1: 2000)
Storage temperature	-20 °C to +60 °C
Ambient temperature	0 °C to +50 °C
Medium temperature	0 °C to +50 °C
Material housing	PA-GF; PAA-GF
Materials in contact with media	CuZn; CuNi
Material seals	NBR; ECO
Behavior in case of energy failure	Port 2 venting
RoHS-Conformity	RoHS 2011/65/EU

Media ²⁾	Compressed air and neutral gases
Media quality	According to ISO 8573-1:2010 (6:3:4)
Flow direction on	From 1 to 2
Flow direction off	From 2 to 3

¹⁾ Base plates for threaded connection see accessories

²⁾ Other media only after approval by the manufacturer

PNEUMATIC PROPERTIES

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PNEUMATIC PROPERTIES

TECNO BASIC	0–0.2 BAR	0–2 BAR	0–8 BAR
Input pressure min ($p_{1_{\min}}$)	1.5 bar	1.5 bar	1.5 bar
Input pressure max ($p_{1_{\max}}$)	2.5 bar	7 bar	10 bar
Output pressure min ($p_{2_{\min}}$)	0 bar	0 bar	0 bar
Output pressure max ($p_{2_{\max}}$) ¹⁾	0.2 bar	2 bar	8 bar
Nominal flow rate 1 to 2 (Q_N) ²⁾			200 l/min
Max. flow rate 1 to 2 (Q_{\max}) ³⁾	70 l/min	200 l/min	350 l/min
Hysteresis ⁴⁾	< 0.5 %	< 0.2 %	< 0.2 %
Repeatability ⁴⁾	< 0.5 %	< 0.2 %	< 0.2 %
Responsiveness ⁴⁾	< 0.5 %	< 0.1 %	< 0.1 %
Linearity ⁴⁾	< 1 %	< 0.5 %	< 0.5 %
Leakage ³⁾	≤ 0.4 l/min	≤ 0.5 l/min	≤ 0.6 l/min
Own air consumption ⁵⁾	≤ 1 l/min	≤ 1 l/min	≤ 1 l/min

¹⁾ Other pressure ranges on request

²⁾ Measured at p_1 = nominal pressure and pressure drop 1 bar

³⁾ Measured at $p_{1_{\max}}$ and $p_2 = 0$ bar

⁴⁾ Related to final value $p_{2_{\max}}$

⁵⁾ Only with target value > 0

ELECTRICAL PROPERTIES

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ELECTRICAL PROPERTIES

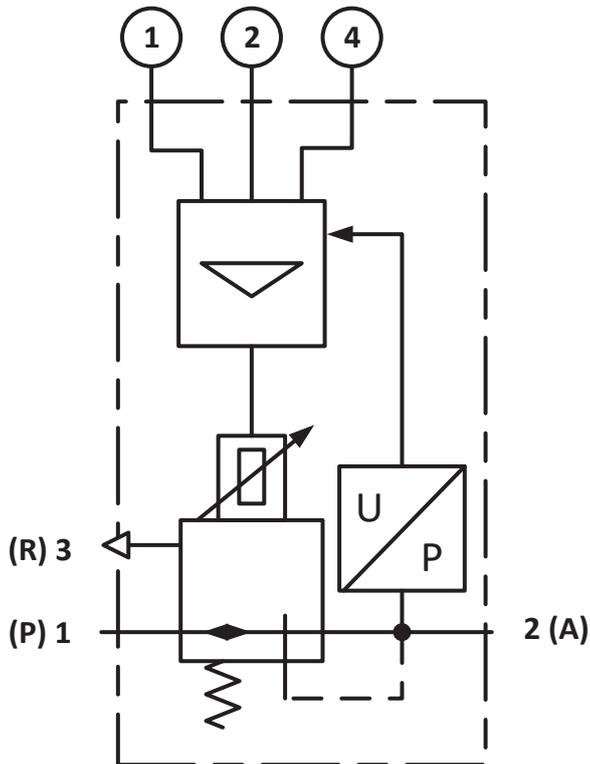
Type	PRE-U without actual value output	PRE-U with actual value output	PRE-I
Electromagnetic compatibility (EMC)			
Immunity to interference ¹⁾	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2
Emitted interference ¹⁾	EN 61000-6-4	EN 61000-6-4	EN 61000-6-4
Electrical connection	M8; 3-Pin	M8; 4-Pin	M8; 3-Pin
Supply			
Nominal voltage (U_N)	24 V DC \pm 10%	24 V DC \pm 10%	
Nominal power (P_N)	0.4 W	0.4 W	
Max. residual ripple (U_N)	10%	10%	
Current consumption (I_{Bmax})	15 mA	15 mA	
Max. input voltage (U_{max})			12.5 V DC
Target value input			
Target value setting (W) Pressure range 0 – 0.2 bar and 0 – 2 bar	0 to 10 V	0 to 10 V	4 to 20 mA
Target value setting (W) Pressure range 0 – 8 bar	0 to 8 V	0 to 8 V	4 to 20 mA
Input resistance (R_e)	\geq 66 kOhm	\geq 66 kOhm	\leq 500 Ohm
Actual value output			
Output voltage (U_x)		0 to 10 V	
Accuracy ($p2_{max}$)		<1.5 %	
Output current max (I_{max})		1 mA	
RESOLUTION	0 – 0.2 BAR	0 – 2 BAR	0 – 8 BAR
Target value input			
Resolution (W/ p_2) PRE-U	50 V/bar	5 V/bar	1 V/bar
Resolution (W/ p_2) PRE-I	80 mA/bar	8 mA/bar	2 mA/bar
Actual value output			
Resolution (X/ p_2)	50 V/bar	5 V/bar	1.25 V/bar

¹⁾ When using shielded connection cables

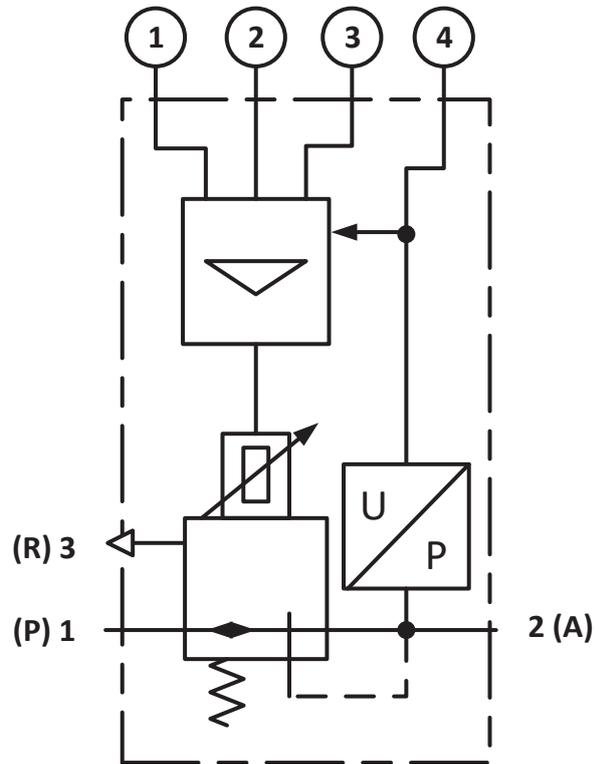
INTERFACES

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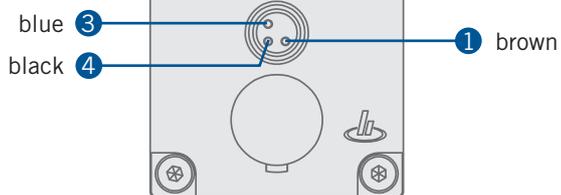
PRE-I AND PRE-U WITHOUT ACTUAL VALUE OUTPUT



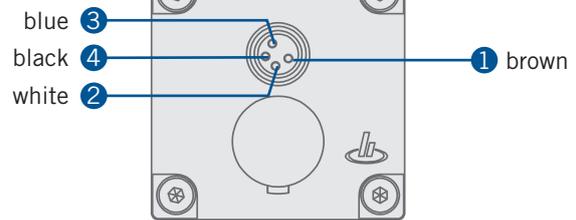
PRE-U WITH ACTUAL VALUE OUTPUT



Plug pin no.



Plug pin no.



Connection diagram

PRE-U without actual value output

1	Power supply 24 V DC / 15 mA
3	GND target value and supply
4	Target value input (voltage)

Connection diagram

PRE-I without actual value output

1;4	Target value input (current)
3	GND target value

Connection diagram

PRE-U with actual value output

1	Power supply 24 V DC
2	Target value input (voltage)
3	GND target value, actual value and supply
4	Actual value input (voltage)

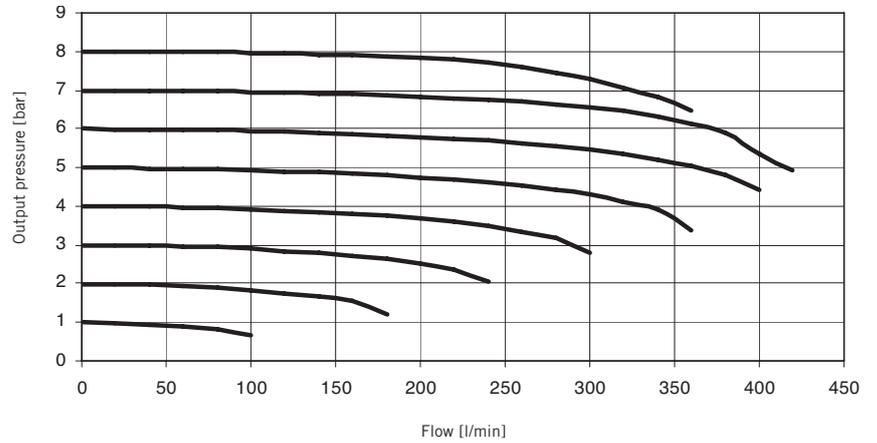
FLOW CURVES

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FLOW FROM 1 TO 2

Input pressure 10 bar

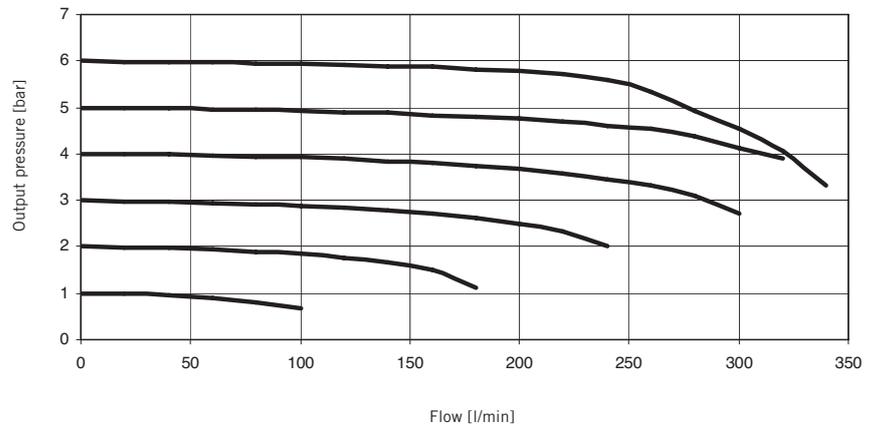
For valves with pressure range
0 – 2 bar and 0 – 8 bar



FLOW FROM 1 TO 2

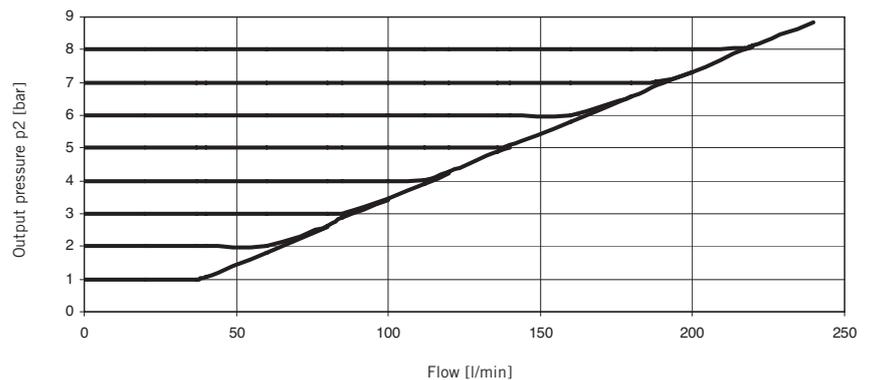
Input pressure 7 bar

For valves with pressure range
0 – 2 bar and 0 – 8 bar



FLOW FROM 2 TO 3, EXHAUST

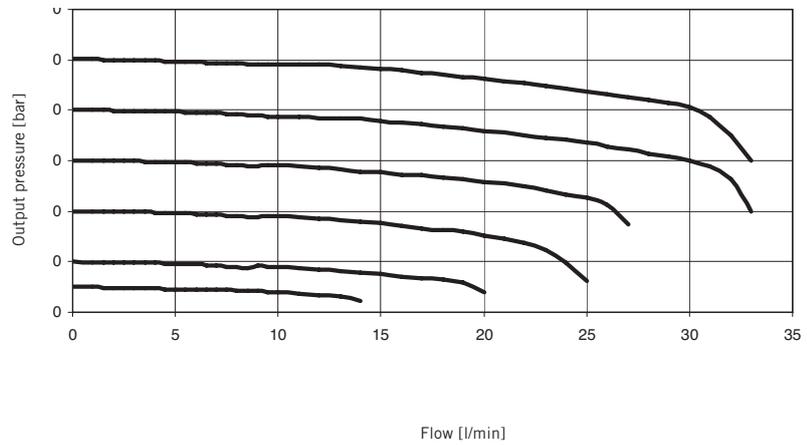
For valves with pressure range
0 – 2 bar and 0 – 8 bar



FLOW FROM 1 TO 2

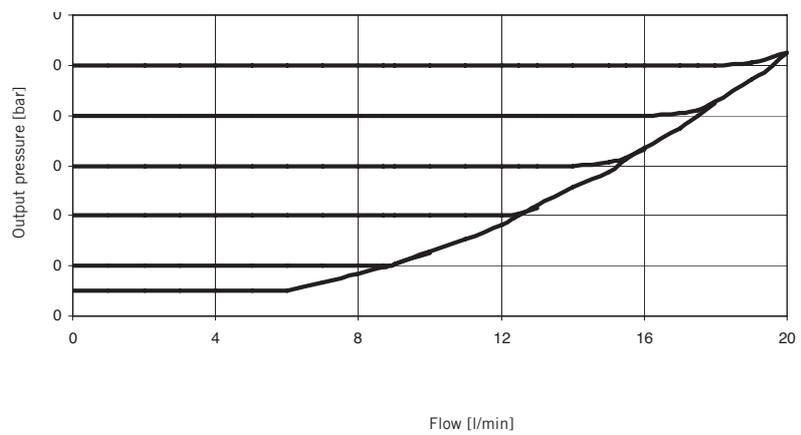
Input pressure 2.5 bar

For valves with pressure range
0 – 0.2 bar



FLOW FROM 2 TO 3, EXHAUST

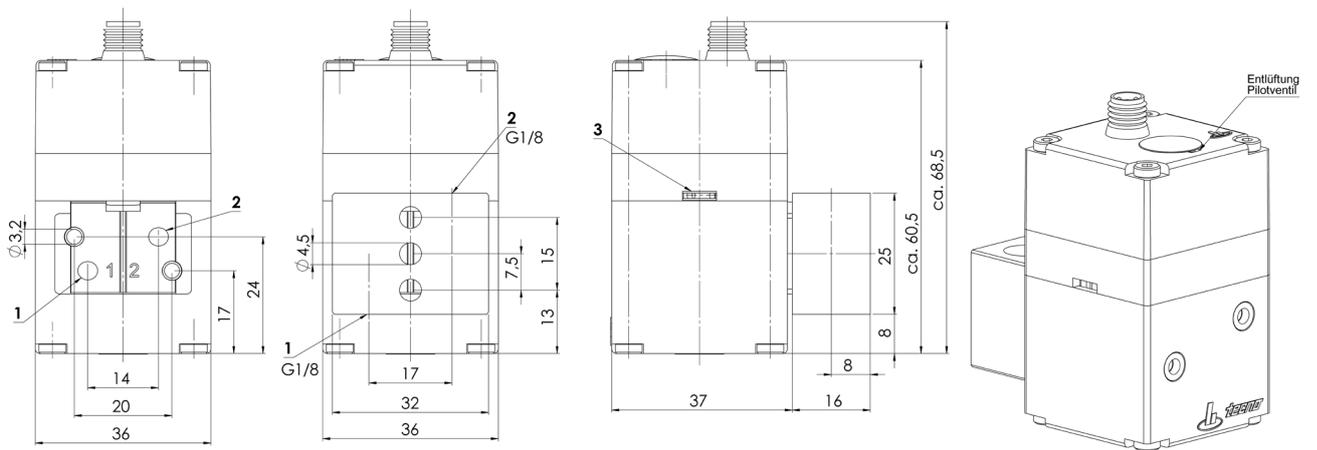
For valves with pressure range
0 – 0.2 bar



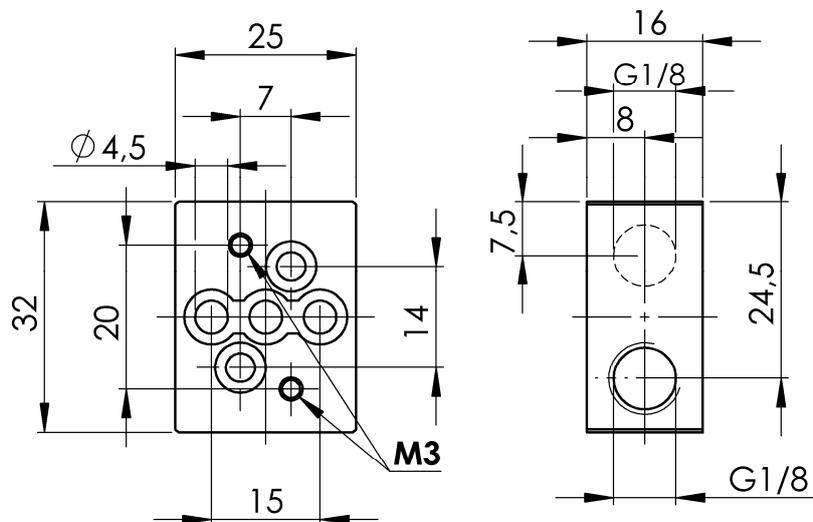
DIMENSIONS

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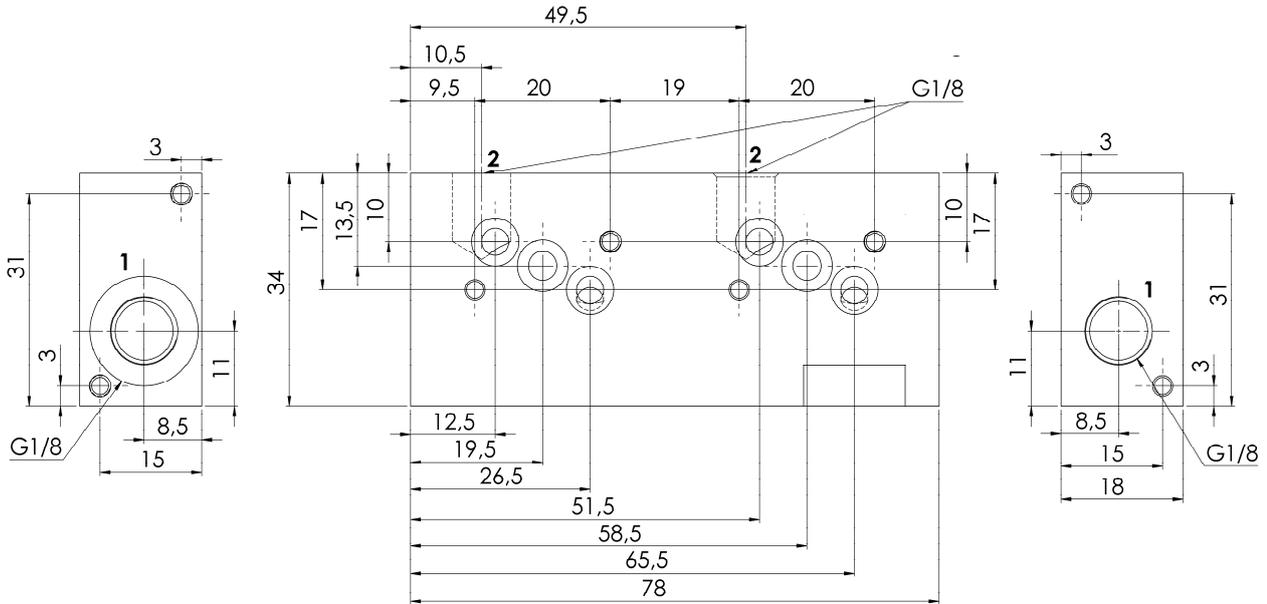
WITH BASE PLATE



PS11112-A-01 BASE PLATE WITH FLANGE CONNECTION

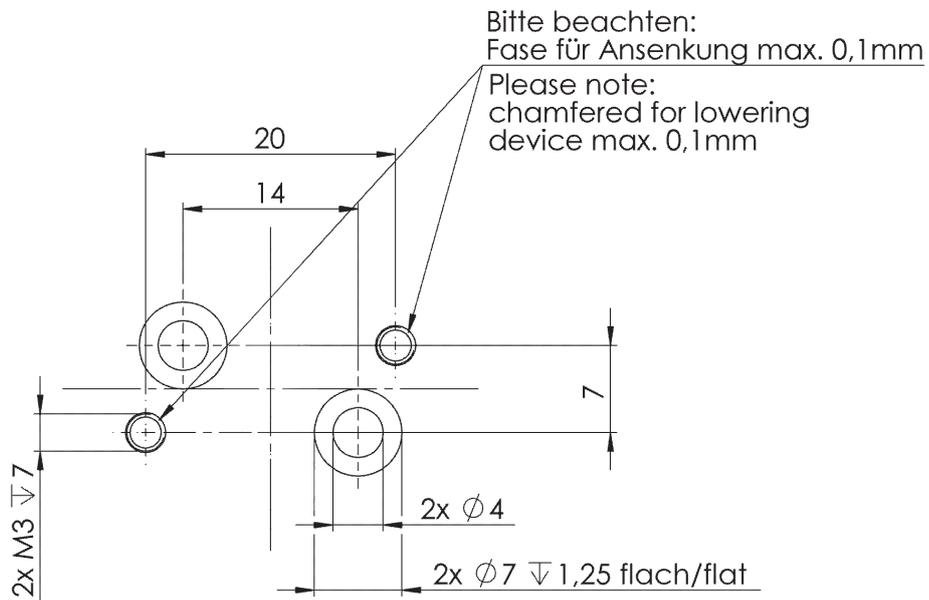


PS12407 BASE PLATE 2-FOLD, STACKABLE WITH FLANGE CONNECTION



All fastening screw thread M3

DETAIL FLANGE CONNECTION



ACCESSORIES

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ACCESSORIES		ORDER NO.
	Base plate 1-fold for mounting one valve \ G 1/8"	PS11112-A-01
	Base plate 2-fold for mounting 2 valves, stackable \ G 1/8"	PS12407
	Blind plate to close flange surface base plate	PS11160
	Fastening set for DIN Rail, 35mm, EN 60715:2001 (incl. 1 x screw M4x16)	PS12368
	Connecting cable straight with plug connector straight \ M8; 3-pole \ 5 m \ for PRE-U and PRE-I	KC3104
	Connecting cable angled with plug connector angled \ M8; 3-pole \ 5 m \ for PRE-U and PRE-I	KC3106
	Connecting cable straight with plug connector straight \ M8; 4-pole \ 5 m \ for PRE-U1	KY000575
	Connecting cable angled with plug connector angled \ M8; 4-pole \ 5 m \ for PRE-U1	KY000576
	Programming set / tool for adjusting the valve control parameters	PS12423

ORDER KEY

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ID NUMBER KEY

		1		2		3	4	5
ID NUMBER	PS 1 2 0 0	x x	-	x x x	-	0	x	x
	PS 1 2 0 0	0 1	-	0 8 0	-	0	1	0

1 Valve version-Target value/Actual value

00	Voltage
01	Current 4 – 20 mA
06	Voltage + Actual value

2 Pressure range

002	0.2 bar
020	2 bar
080	8 bar

3 Device version

0	Standard
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4 Connection cable*

0	Without cable and plug connector
1	Cable with plug connector straight (3 Pin)
2	Cable with plug connector angled (3 Pin)
3	Cable with plug connector straight (4 Pin)
4	Cable with plug connector angled (4 Pin)

Note for cable selection:

Valve version 00 and 01, M8 - 3 pin connection cable 1 or 2

Valve version 06, M8 - 4 pin connection cable 3 or 4

5 Flange*

0	Without flange
5	Lateral G1/8"

*See accessories

Other variations on request

CONVERSION FACTORS

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CONVERSION FACTORS

VALUE	UNIT	CONVERSION UNIT	FACTOR
Length	mm	in	0.03934
	in	mm	25.4
	m	ft	3.28084
	ft	m	0.3048
Weight	kg	lb	2.204622
	lb	kg	0.453592
Pressure	bar	psi	14.5035
	psi	bar	0.06895
	MPa	psi	145.035
	psi	MPa	0.006895
	bar	MPa	0.1
	MPa	bar	10
Temperature	°C	°F	$1.8 \text{ }^{\circ}\text{C} + 32$
	°F	°C	$0.5556 \text{ }^{\circ}\text{F} - 32$
Torque	Nm	ft/lbs	0.7375
	ft/lbs	Nm	1.3558

ADDITIONAL DOCUMENTATION

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WWW.HOERBIGER.COM

This data sheet and additional documentation is available in the download area of the company's website.



www.hoerbiger.com

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