

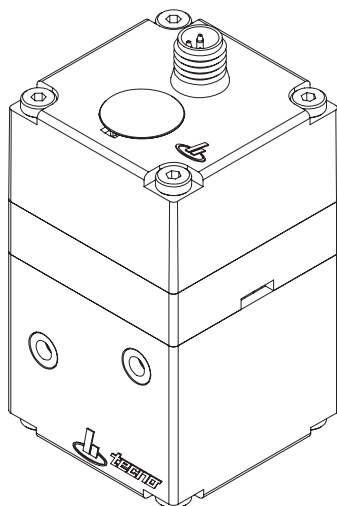
TECNO BASIC

Piezo-controlled pneumatic pressure regulator,
electronically controlled

Technical Data

EN MET


HOERBIGER



GENERAL PROPERTIES

Tecno Basic

GENERAL PROPERTIES

Type	Target value via voltage, 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

Tecno Basic

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

Tecno Basic

ELECTRICAL PROPERTIES

Type	Target value via voltage without actual value output	Target value via voltage with actual value output	Target value via current
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
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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

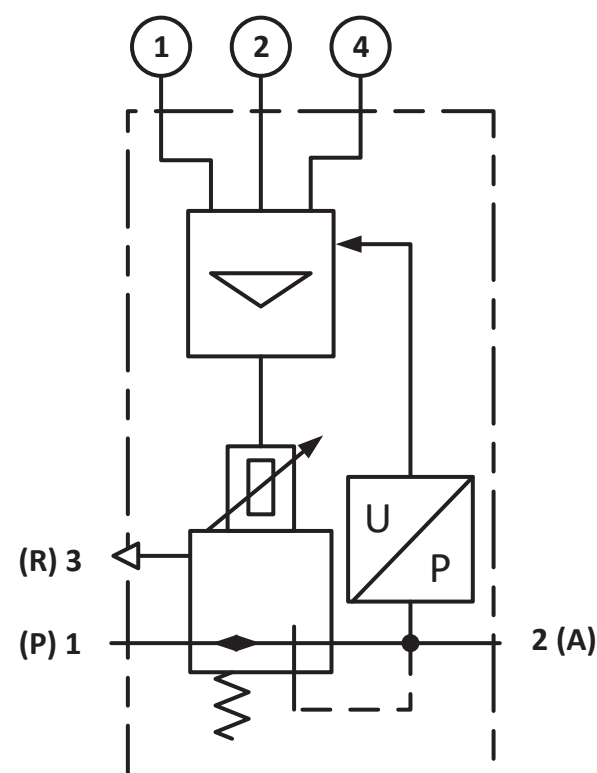
Resolution (W/ p_2) PRE-U	50 V/bar	5 V/bar	1 V/bar
Resolution (W/ p_2) PRE-I	80 mA/bar	8 mA/bar	2 mA/bar

Actual value output

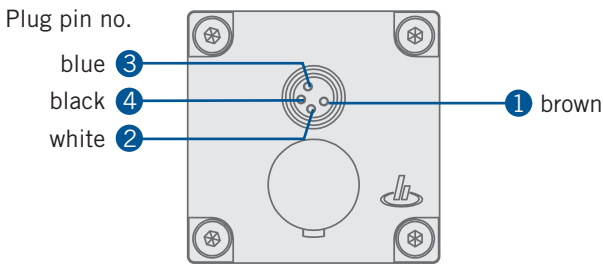
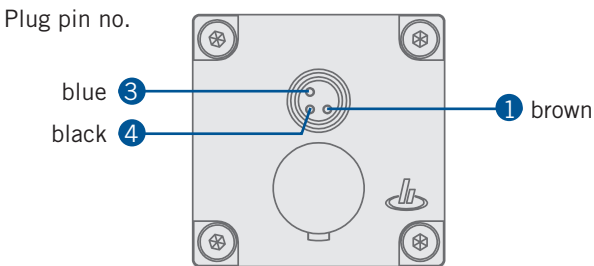
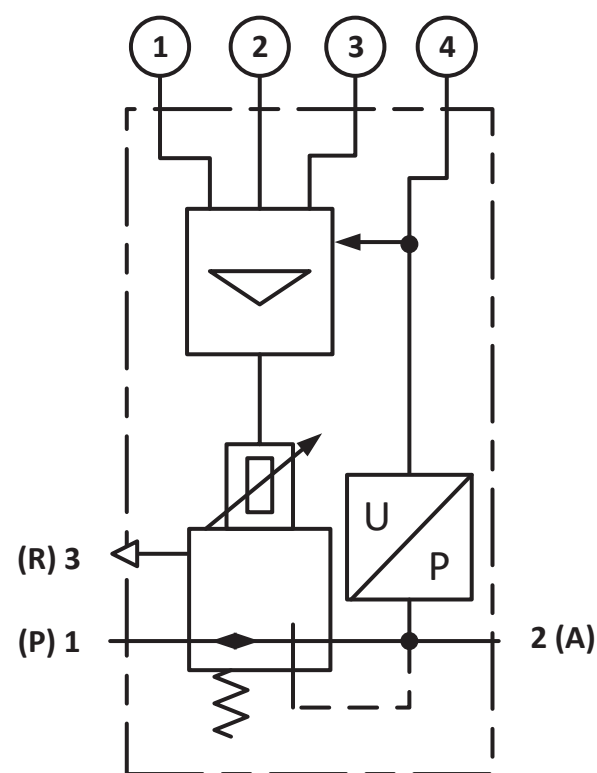
Resolution (X/ p_2)	50 V/bar	5 V/bar	1.25 V/bar
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¹⁾ When using shielded connection cables

WITHOUT ACTUAL VALUE OUTPUT



WITH ACTUAL VALUE OUTPUT



Connection diagram
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
without actual value output

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

Connection diagram
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)

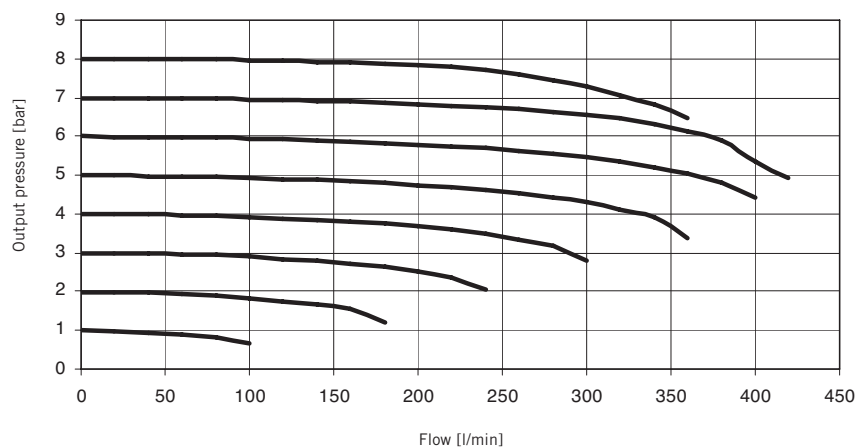
FLOW CURVES

Tecno Basic

FLOW FROM 1 TO 2

Input pressure 10 bar

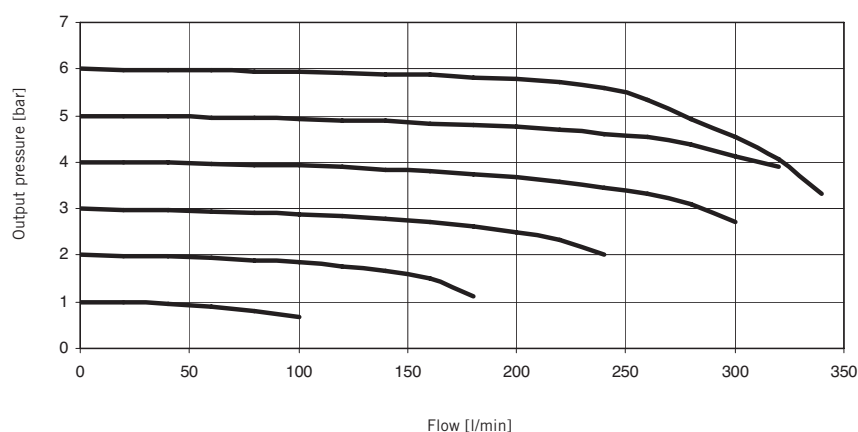
For valves with pressure range
0 – 2 bar and 0 – 8 bar



FLOW FROM 1 TO 2

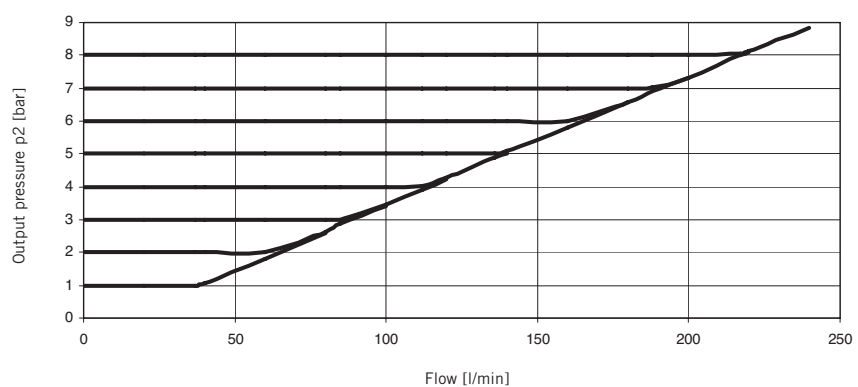
Input pressure 7 bar

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



FLOW FROM 2 TO 3, EXHAUST

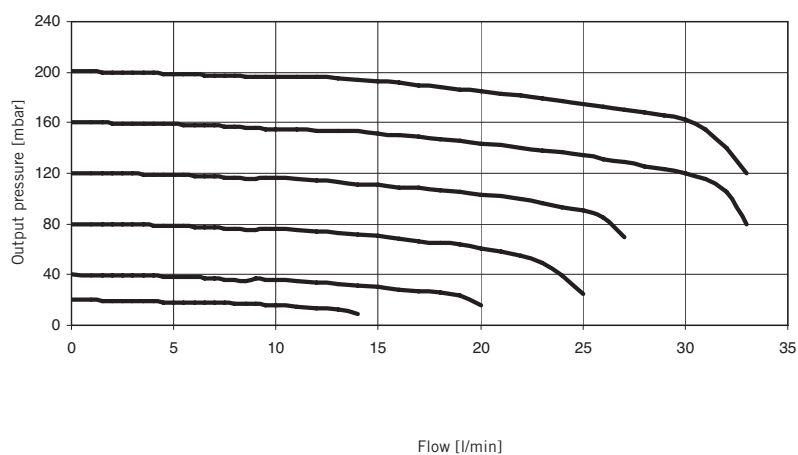
For valves with pressure range
0 – 2 bar and 0 – 8 bar



FLOW FROM 1 TO 2

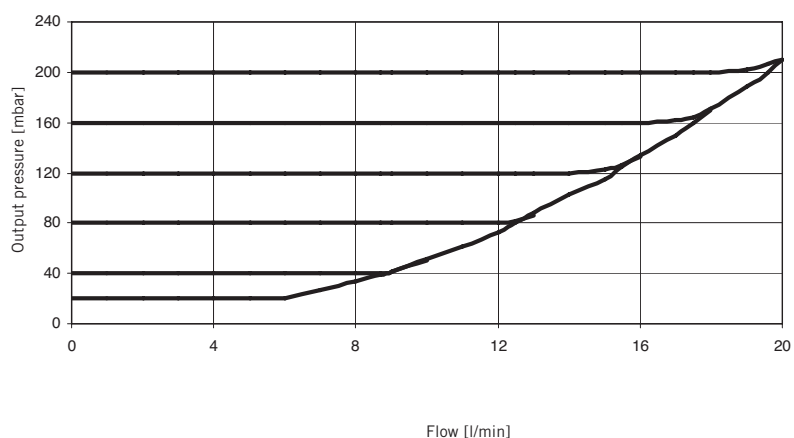
Input pressure 2.5 bar

For valves with pressure range
0 – 0.2 bar



FLOW FROM 2 TO 3, EXHAUST

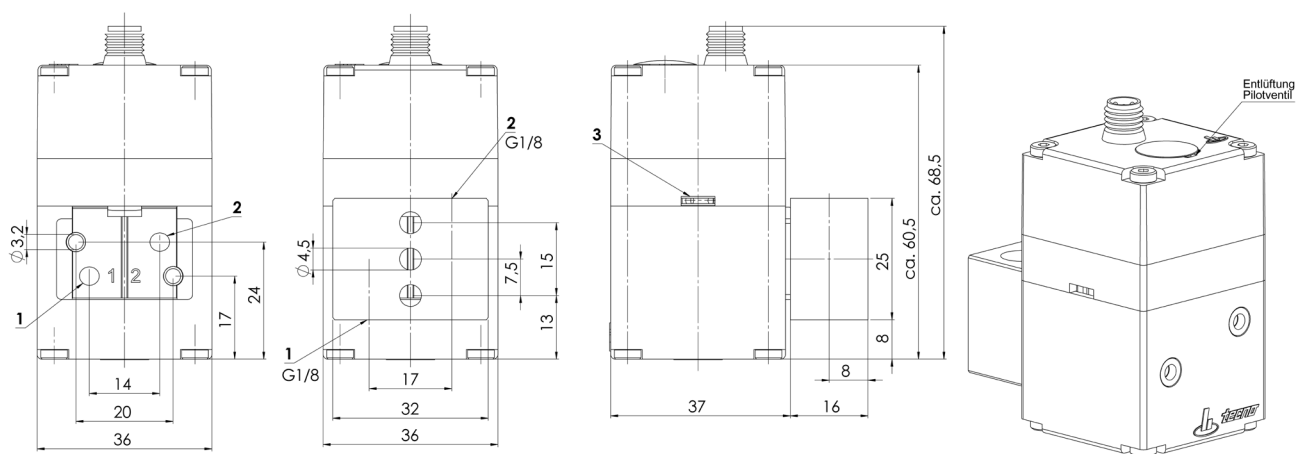
For valves with pressure range
0 – 0.2 bar



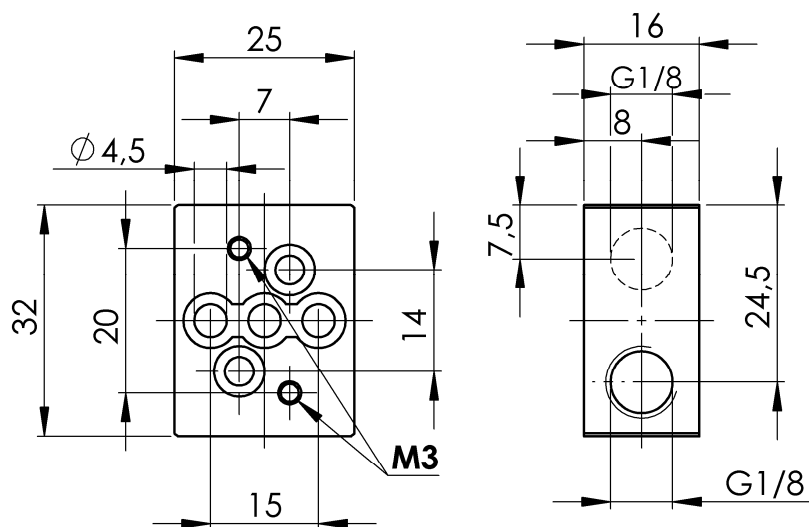
DIMENSIONS

Tecno Basic

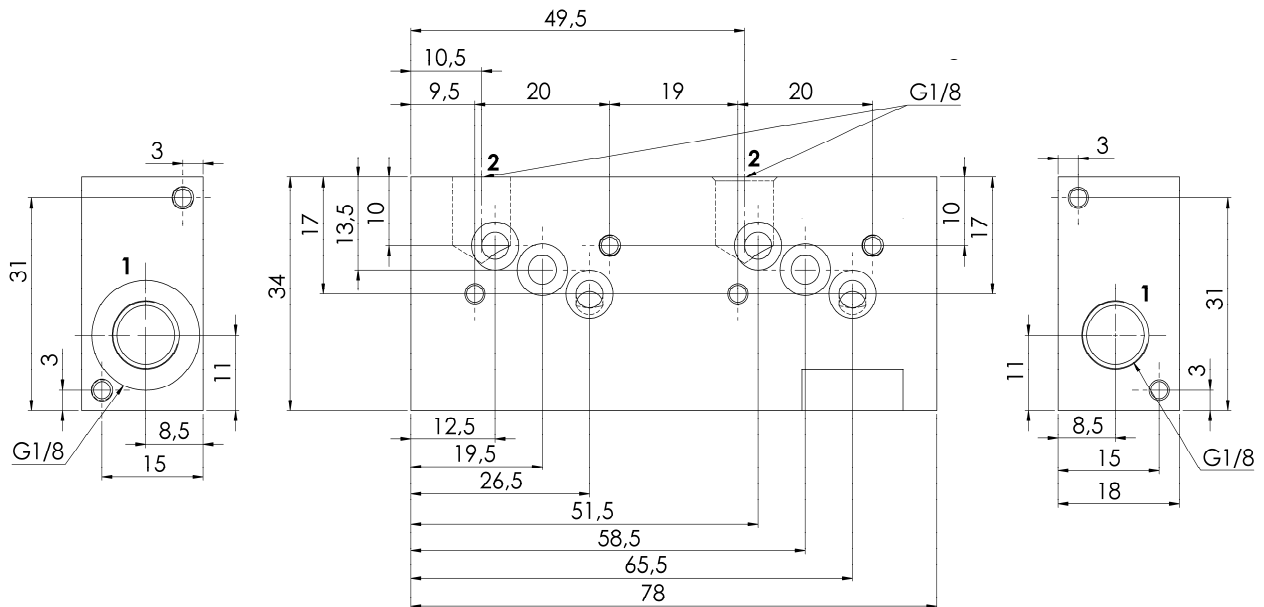
WITH BASE PLATE



1016-4912-00 BASE PLATE WITH FLANGE CONNECTION

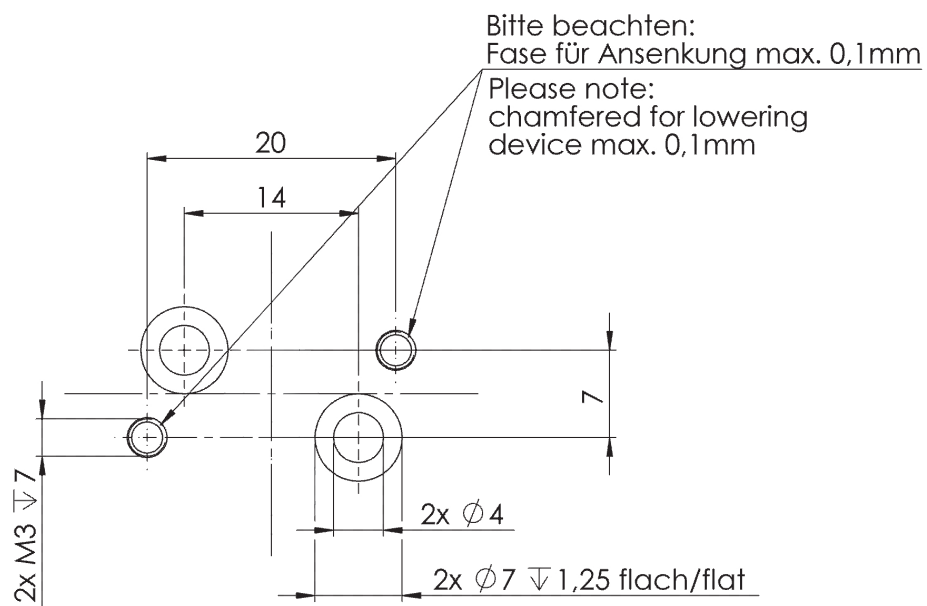


1016-5451-00 BASE PLATE 2-FOLD, STACKABLE WITH FLANGE CONNECTION



All fastening screw thread M3

DETAIL FLANGE CONNECTION



ACCESSORIES

Tecno Basic

ACCESSORIES

ORDER NO.

	Base plate 1-fold for mounting one valve \ G 1/8"	TEB-ANG-A001
	Base plate 2-fold for mounting 2 valves, stackable \ G 1/8"	TEB-ANG-A002
	Blind plate to close flange surface base plate	TEB-ANG-A002
	Fastening set for DIN Rail, 35mm, EN 60715:2001 (incl. 1 x screw M4x16)	TEB-ANG-A002
	Connecting cable straight with plug connector straight \ M8; 3-pole \ 5 m \ for PRE-U and PRE-I	TEB-STR-K035
	Connecting cable angled with plug connector angled \ M8; 3-pole \ 5 m \ for PRE-U and PRE-I	TEB-ANG-K035
	Connecting cable straight with plug connector straight \ M8; 4-pole \ 5 m \ for PRE-U1	TEB-STR-K045
	Connecting cable angled with plug connector angled \ M8; 4-pole \ 5 m \ for PRE-U1	TEB-ANG-K045
	Programming set / tool for adjusting the valve control parameters	TEB-000-P023

ORDER KEY

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TYPE NUMBER KEY

		1		2		3			4		5
TYPE NUMBER		T E B	0 0	x x	–	x x x	–	0	x	x	
Example		T E B	0 0	0 1	–	0 8 0	–	0	1	0	

1 Device type

00	tecno basic
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2 Valve version-Target value/Actual value

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

3 Pressure range

002	0.2 bar
020	2 bar
080	8 bar

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*

5	Base plate*
0	Without base plate

*See accessories

CONVERSION FACTORS

Tecno Basic

CONVERSION FACTORS

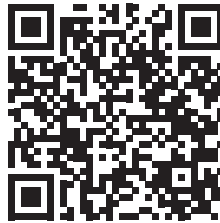
VALUE	UNIT	CONVERSION UNIT	FACTOR
Length	mm	in	0.03934
	in	mm	25.4
	m	ft	3.28084
	ft	m	0.3048
Weight	kg	lb	2.204622
	lb	kg	0.453592
Pressure	bar	psi	14.5035
	psi	bar	0.06895
	MPa	psi	145.035
	psi	MPa	0.006895
	bar	MPa	0.1
	MPa	bar	10
Temperature	°C	°F	$1.8\text{ }^{\circ}\text{C} + 32$
	°F	°C	$0.5556\text{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

ADDITIONAL DOCUMENTATION

Tecno Basic

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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