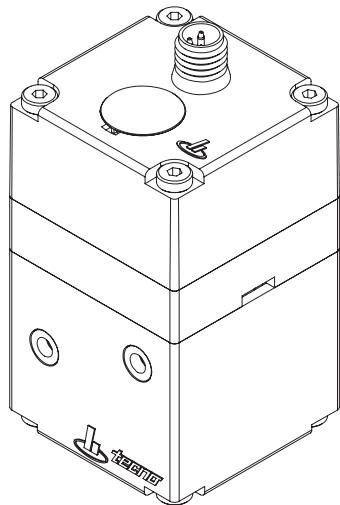


# TECNO BASIC

Piezo-controlled pneumatic pressure regulator,  
electronically controlled

EN MET

Technical Data



## 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 <sup>1)</sup>
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 <sup>2)</sup>	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

<sup>1)</sup> Base plates for threaded connection see accessories

<sup>2)</sup> 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 <sub>1_min</sub> )	1.5 bar	1.5 bar	1.5 bar
Input pressure max (p <sub>1_max</sub> )	2.5 bar	7 bar	10 bar
Output pressure min (p <sub>2_min</sub> )	0 bar	0 bar	0 bar
Output pressure max (p <sub>2_max</sub> ) <sup>1)</sup>	0.2 bar	2 bar	8 bar
Nominal flow rate 1 to 2 (Q <sub>N</sub> ) <sup>2)</sup>			200 l/min
Max. flow rate 1 to 2 (Q <sub>max</sub> ) <sup>3)</sup>	70 l/min	200 l/min	350 l/min
Hysteresis <sup>4)</sup>	< 0.5 %	< 0.2 %	< 0.2 %
Repeatability <sup>4)</sup>	< 0.5 %	< 0.2 %	< 0.2 %
Responsiveness <sup>4)</sup>	< 0.5 %	< 0.1 %	< 0.1 %
Linearity <sup>4)</sup>	< 1 %	< 0.5 %	< 0.5 %
Leakage <sup>3)</sup>	≤ 0.4 l/min	≤ 0.5 l/min	≤ 0.6 l/min
Own air consumption <sup>5)</sup>	≤ 1 l/min	≤ 1 l/min	≤ 1 l/min

<sup>1)</sup> Other pressure ranges on request

<sup>2)</sup> Measured at p<sub>1</sub> = nominal pressure and pressure drop 1 bar

<sup>3)</sup> Measured at p<sub>1\_max</sub> and p<sub>2</sub> = 0 bar

<sup>4)</sup> Related to final value p<sub>2\_max</sub>

<sup>5)</sup> 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 <sup>1)</sup>	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2
Emitted interference <sup>1)</sup>	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	

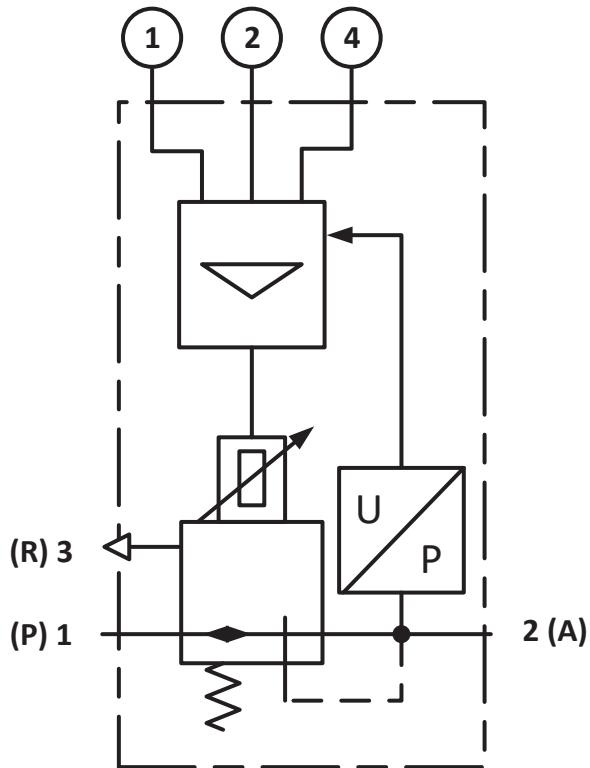
RESOLUTION	0 – 0.2 BAR	0 – 2 BAR	0 – 8 BAR
Target value input			
Resolution ( $W/p_2$ ) PRE-U	50 V/bar	5 V/bar	1 V/bar
Resolution ( $W/p_2$ ) PRE-I	80 mA/bar	8 mA/bar	2 mA/bar
Actual value output			
Resolution ( $X/p_2$ )	50 V/bar	5 V/bar	1.25 V/bar

<sup>1)</sup> When using shielded connection cables

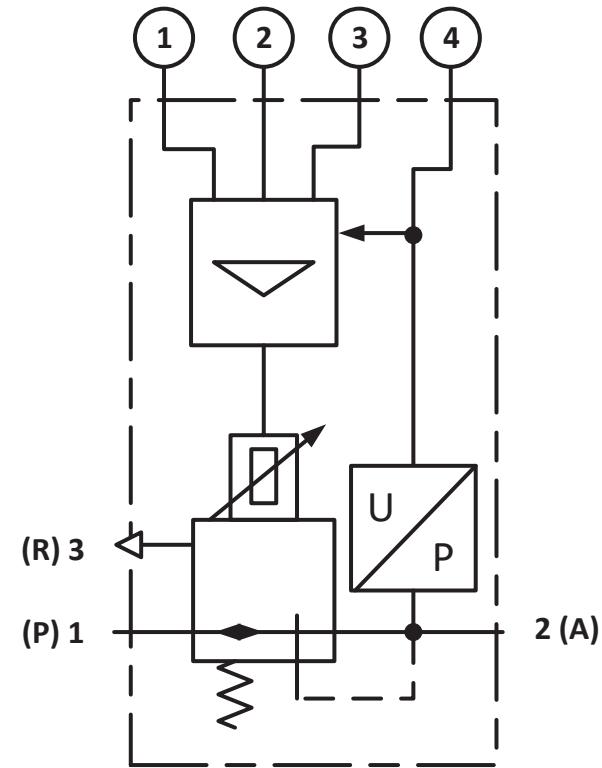
## INTERFACES

## Tecno Basic

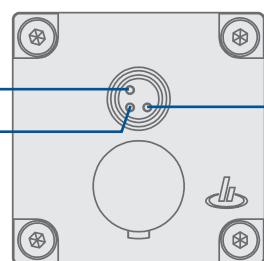
## WITHOUT ACTUAL VALUE OUTPUT



## WITH ACTUAL VALUE OUTPUT



Plug pin no.



1 brown

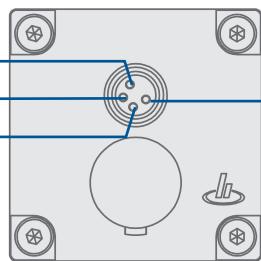
## Connection diagram without actual value output

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

Plug pin no.



1 brown

## 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)

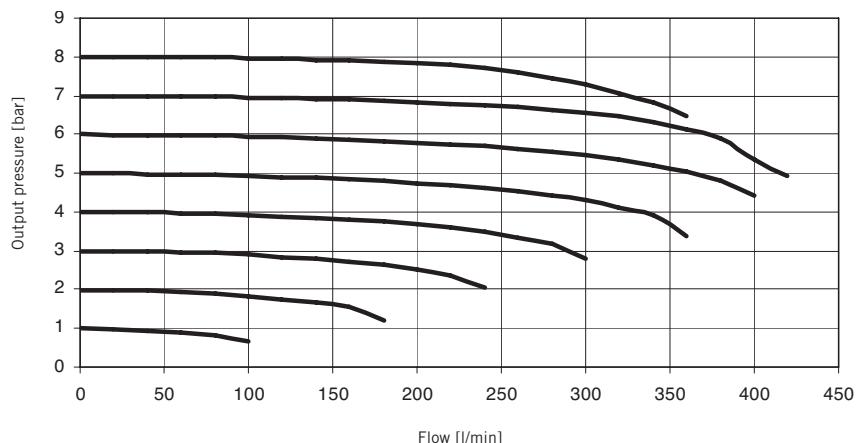
## FLOW CURVES

### Tecno Basic

#### FLOW FROM 1 TO 2

Input pressure 10 bar

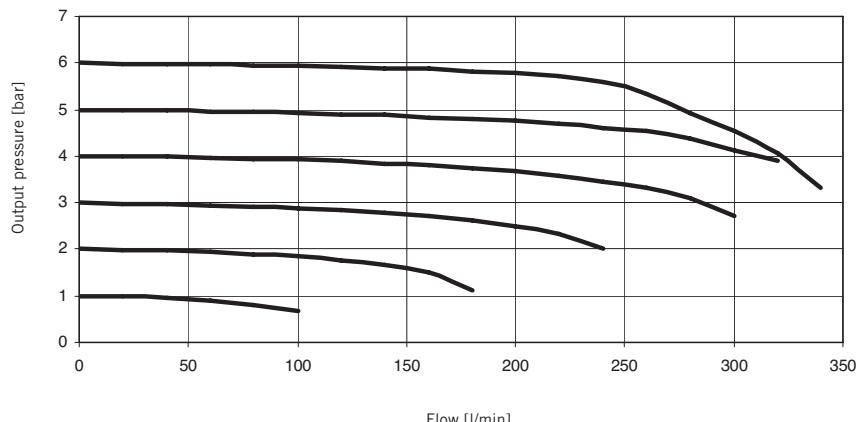
For valves with pressure range  
0 – 2 bar and 0 – 8 bar



#### FLOW FROM 1 TO 2

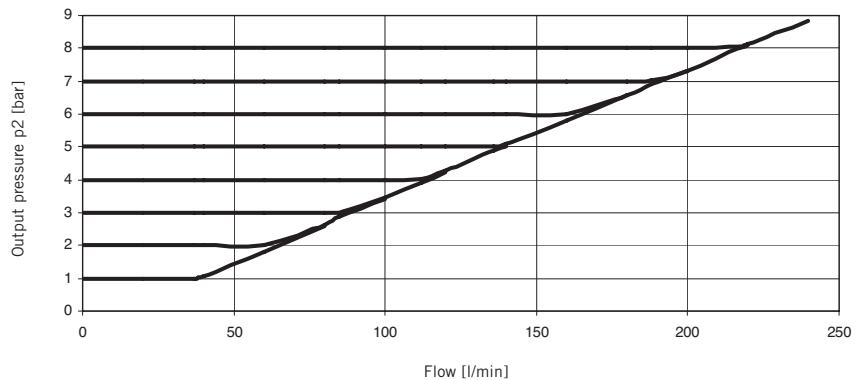
Input pressure 7 bar

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



#### FLOW FROM 2 TO 3, EXHAUST

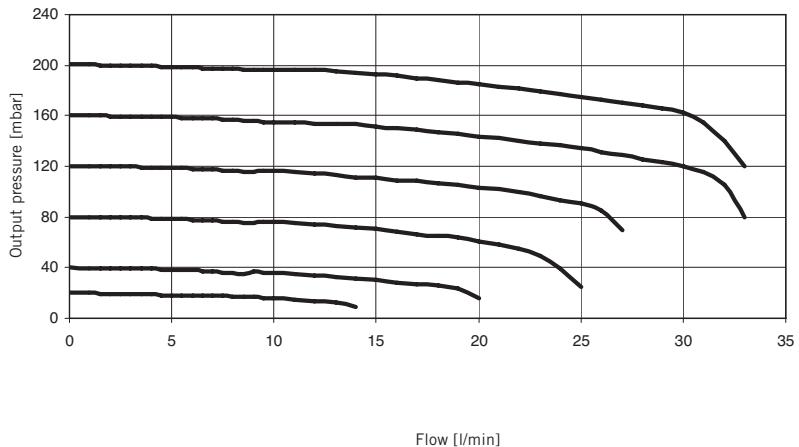
For valves with pressure range  
0 – 2 bar and 0 – 8 bar



## FLOW FROM 1 TO 2

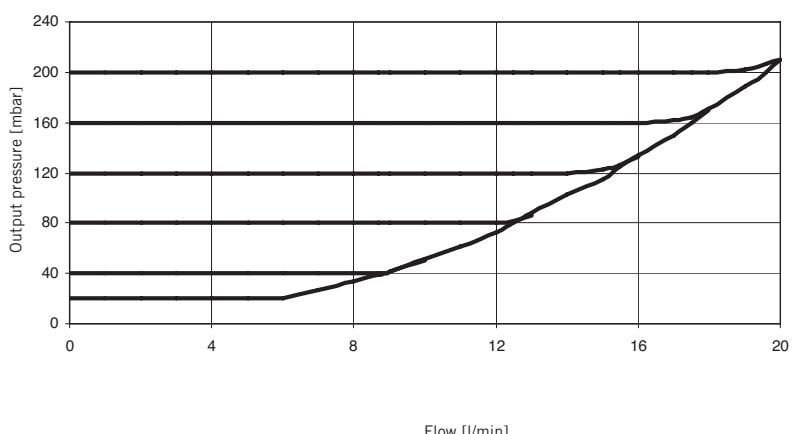
Input pressure 2.5 bar

For valves with pressure range  
0 – 0.2 bar



## FLOW FROM 2 TO 3, EXHAUST

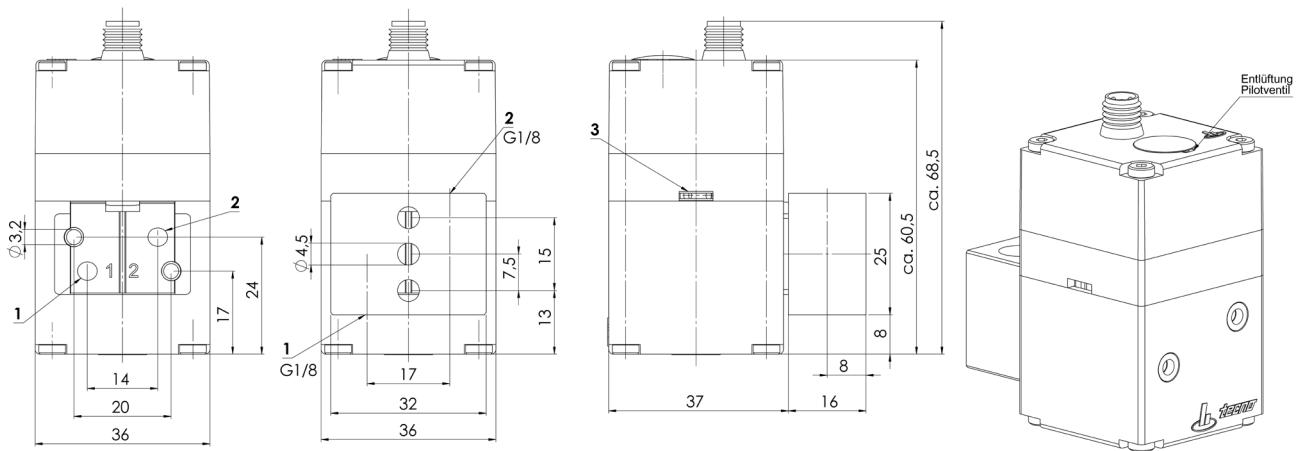
For valves with pressure range  
0 – 0.2 bar



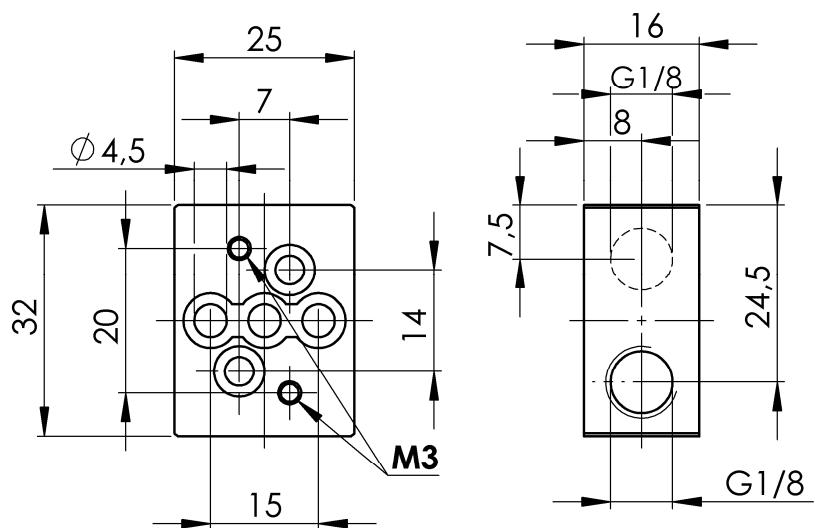
## DIMENSIONS

Tecno Basic

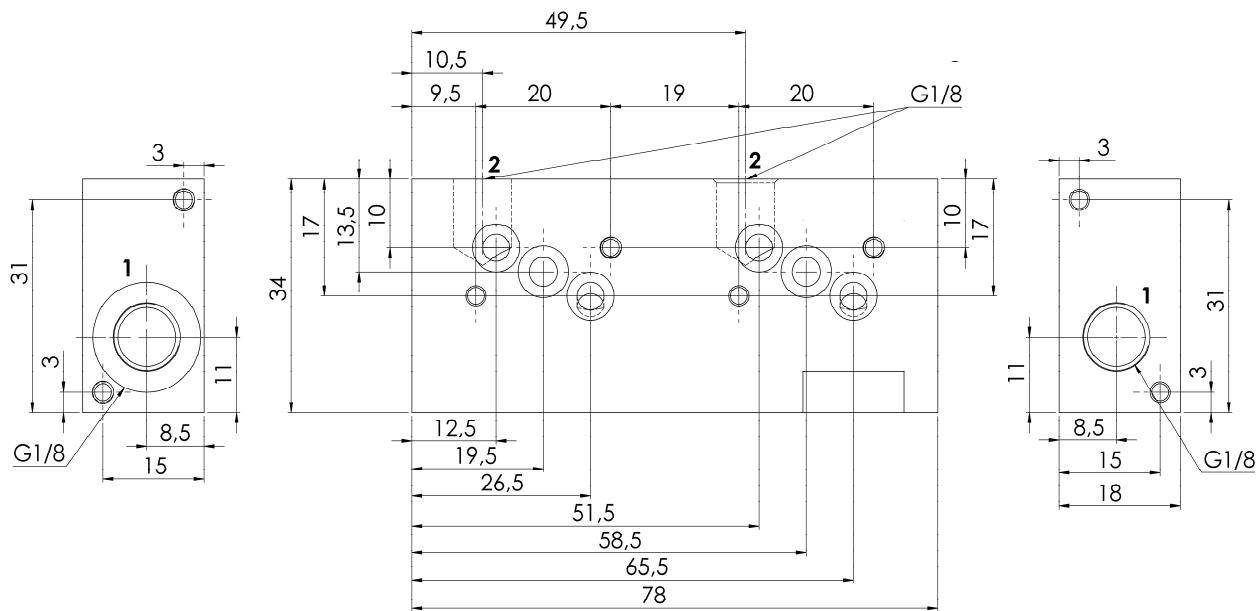
WITH BASE PLATE



1016-4912-00 BASE PLATE WITH FLANGE CONNECTION



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

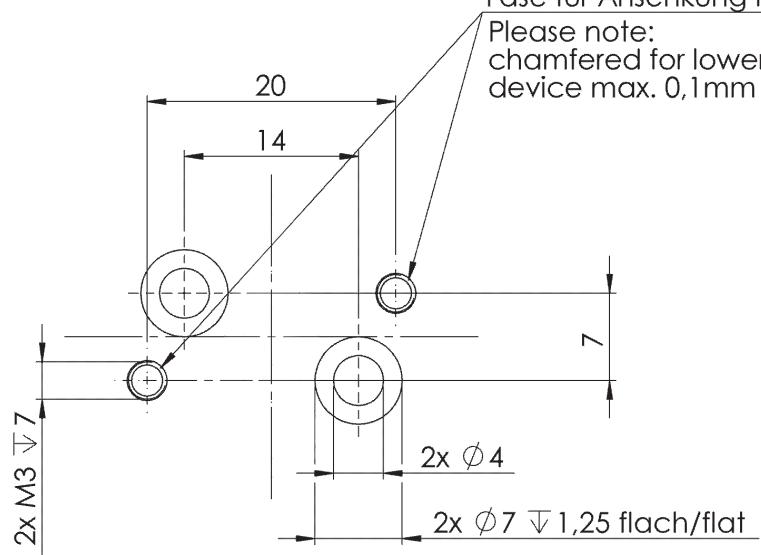


All fastening screw thread M3

## DETAIL FLANGE CONNECTION

Bitte beachten:  
Fase für Ansenkung max. 0,1mm

Please note:  
chamfered for lowering  
device max. 0,1mm



## 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

Tecno Basic

### TYPE NUMBER KEY

TYPE NUMBER	T	E	B	1	2	3	4	5
				00	xx	-	xxx	-
Example	T	E	B	00	01	-	080	-010
<b>1 Device type</b>								
00	tecno basic							
<b>2 Valve version-Target value/Actual value</b>								
00	Voltage							
01	Current 4 – 20 mA							
06	Voltage + Actual value							
<b>3 Pressure range</b>								
002	0.2 bar							
020	2 bar							
080	8 bar							
<b>4 Connection cable*</b>								
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								
<b>5 Flange*</b>								
5	Base plate*							
0	Without base plate							

\*See accessories

# CONVERSION FACTORS

Tecno Basic

## CONVERSION FACTORS

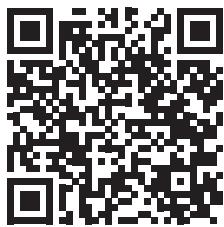
VALUE	UNIT	CONVERSION UNIT	FACTOR
Length	mm	in	0.03934
	in	mm	25.4
	m	ft	3.28084
	ft	m	0.3048
Weight	kg	lb	2.204622
	lb	kg	0.453592
Pressure	bar	psi	14.5035
	psi	bar	0.06895
	MPa	psi	145.035
	psi	MPa	0.006895
	bar	MPa	0.1
	MPa	bar	10
Temperature	°C	°F	1.8 °C + 32
	°F	°C	0.5556 °F – 32
Torque	Nm	ft/lbs	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](http://www.hoerbiger.com)

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