

Relative and absolute pressure transmitter type 528

Pressure range
0 ... 1 – 60 bar

The compact type 528 pressure transmitter is based upon the Huba Control developed and since over 20 years well proven ceramic technology. These transmitters are suitable for applications across a broad spectrum of industries.

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

- Compact, rugged construction
- Negligible temperature influence on accuracy
- Saving time by quick cable mounting by the customer with swift connector
- Large selection of connections available



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Technical overview

Pressure range

Relative	0 ... 1 – 60 bar
Absolute	0 ... 1 – 16 bar

Operating conditions

Medium		Liquids and gases
		FPM -15 ... +125 °C
		EPDM -40 ... +125 °C
		NBR -20 ... +100 °C
		MVQ -40 ... +125 °C
Temperature	Medium	-30 ... +85 °C
	Ambient	-50 ... +100 °C
	Storage	
Tolerable overload / Repture pressure	< 4 bar	3.0 x fs
	> 6 bar	2.5 x fs

Materials

Cover	Stainless steel 1.4305	
Plug accommodation	Polyarylamide 50% GF VO	
Cable	PVC spec.	
Materials in contact with medium	Pressure connection	Stainless steel 1.4305
	Sensor	Ceramic Al ₂ O ₃ (96%)
	Sealing material	FPM, EPDM, NBR, MVQ

Electrical overview

	Output	Power supply	Load	Current consumption
2 wire	4 ... 20 mA	7 ... 33 VDC	< $\frac{\text{supply voltage} - 7 \text{ V}}{0.02 \text{ A}}$ [Ohm]	< 20 mA
2 wire (Ex)	4 ... 20 mA	10 ... 30 VDC	< $\frac{\text{supply voltage} - 10 \text{ V}}{0.02 \text{ A}}$ [Ohm]	< 20 mA
	0 ... 5 V	8 ... 33 VDC	>10 kOhm / < 100 nF	< 7 mA
	1 ... 6 V	8 ... 33 VDC	>10 kOhm / < 100 nF	< 7 mA
3 wire	0 ... 10 V	12 ... 33 VDC	>10 kOhm / < 100 nF	< 7 mA
	0 ... 10 V	24 VAC ± 15%	>10 kOhm / < 100 nF	< 7 mA
	ration. 10 ... 90%	5 VDC ± 10%	>10 kOhm / < 100 nF	< 7 mA
Polarity reversal protection	Short circuit proof and protected against polarity reversal. Each connection is protected against crossover up to max. supply voltage.			

Dynamic response

Response time	< 5 ms
Load cycle	< 50 Hz

Protection standard

Connector DIN EN 175301-803	IP 65
Connector RAST 2.5	IP 00
All other versions	IP 67

Electrical connection

Swift connector with or without cable 1.5 m
Connector DIN EN 175301-803-A
Connector DIN EN 175301-803-C (mini DIN)
Metri Pack Serie 150
Connector M12x1
Braids (2 wire or 3 wire)
Connector RAST 2.5

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Pressure connection

Inside thread	G ¼	with O-Ring seal
	¼ -18 NPT	
Outside thread	G ¼	sealed at back DIN 3852 form E
	R ¼	DIN 2999
	G ½	sealed at back and manometer (combi)
	G ½	sealed at front

Installation arrangement

Unrestricted

Tests / Admissions

Electromagnetic compatibility	CE conformity acc. EN 61326-2-3
Classification according to the pressure equipment directive (DGRL 97/23/EG)	For gases of fluid group 1 and liquids of fluid group 1; fulfills the requirements according to article 3, paragraph 3 (good engineering practice)

Protection against explosion

Intrinsic safety «i» (with current output only)	Ex II 1/2 G Ex ia IIC T4 Ga/Gb
EC type examination certificate	Ex II 1/2 D Ex ia IIC T125°C Da/Db
Connection to certified intrinsically safe resistive circuits with maximum values	SEV 10 ATEX 0145
Effective internal inductance and capacitance for versions with plugs complying with EN 175301-803 or M12x1	Ui = 30 VDC; Ii = 100 mA = Pi = 0.75 W
	Li = 0 nH; Ci = 0 nF

Weight

~ 90 g

Packaging (Please state on order)

Single packaging in cardboard	accessories integrated
Multiple packaging in cardboard (25 pcs)	accessories integrated

Accuracy acc. to EN 60770-1

Parameter	Unit	
Characteristic line (at reference conditions) ¹⁾	% fs	± 0.8
Resolution	% fs	0.1
Thermal characteristic ²⁾	% fs/10K	± 0.2

Test conditions: 25 °C, 45% RH, power supply 24 VDC

Order code selection in bar 528. X X X X X X X X X X X X

[illegible]

	Order number
Swift connector	107359
Female connector DIN EN 175301-803-A with seal	103510
Female connector DIN EN 175301-803-C (mini DIN) with seal	104244
Female connector for connector M12x1	106975

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¹⁾ incl. linearity, hysteresis and repeatability
⁴⁾ Delivery without female connector

2) -15 ... 85°C

³⁾ Other pressure ranges on request

⁵⁾ Other pressure connections on request

Order code selection in psi			528. X X X X X X X X X X X X											
Pressure mode	Relative		9											
	Absolute		8											
Pressure range ¹⁾	0 ... + 15 psi			B	1									
	0 ... + 20 psi			B	2									
	0 ... + 30 psi			B	4									
	0 ... + 60 psi			B	5									
	0 ... + 100 psi			B	7									
	0 ... + 150 psi			C	0									
	0 ... + 200 psi			C	1									
	0 ... + 300 psi		9	C	2									
	0 ... + 500 psi		9	C	3									
Sealing material	FPM	Fluoro elastomer				0								
	EPDM	Ethylene propylene				1								
	NBR	Butadiene Acrylonitrile				2								
	MVQ	Silicone polymer				3								
Version	Not free of oil and grease					0								
	Free of oil and grease					1								
Output / power supply	0 ... 5 V	7 ... 33 VDC					1							
	1 ... 6 V	8 ... 33 VDC					6							
	0 ... 10 V	12 ... 33 VDC					2							
	0 ... 10 V	24 VAC ±15%					8	1,2,6						
	Ratiom. 10 ... 90%	5VDC ±10%					7							
	4 ... 20 mA	7 ... 33 VDC					3							
	4 ... 20 mA	10 ... 30 VDC					4	1,3						
		Ex protection												
Electrical connection ²⁾	Swift connector						0							
	Connector DIN EN 175301-803-A						1							
	Connector DIN EN 175301-803-C (mini DIN)						2							
	Connector M12x1 ³⁾	2w: IN=1 / OUT=3 3w: IN=1 / OUT=4 / GND=3					3							
	Connector M12x1 ³⁾	2w: IN=1 / OUT=3 3w: IN=1 / OUT=3 / GND=4					M							
	Connector RAST 2.5						4							
	Metri Pack Serie 150 ³⁾						5							
	Braids	80 ±10 mm					6							
	Braids	290 ±10 mm					7							
	Braids	480 ±10 mm					8							
	Braids	730 ±10 mm					9							
Pressure connection ⁴⁾	Swift connector without or with cable 1.5 m						L							
	Inside thread	G ¼ with O-Ring seal						1	1					
	Outside thread	¼ -18 NPT						3	1					
	Outside thread	G ¼ sealed at back DIN 3852 form E						4	1					
	Outside thread	R ¼ acc. to DIN 2999						7	1					
	Outside thread	G ½ sealed at back and manometer (combi)						8	1					
	Outside thread	G ½ sealed at front						9	1					
Calibration certificate	Without												N	
	With												Z	
Pressure range variation	Indicate W and state range on order (e.g.: W0... + 16psi/OUT1...8V)													W

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¹⁾ Other pressure ranges on request

³⁾ For pressure ranges 16 bar only possible if deaeration through the cable is assured

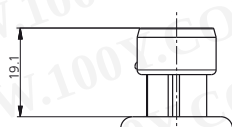
²⁾ Delivery without female connector

⁴⁾ Other pressure connections on request

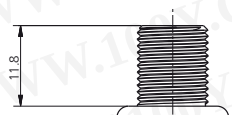
Order code selection in MPa			528. X X X X X X X X X X X X															
Pressure mode	Relative		9															
	Absolute		8															
Pressure range ¹⁾	0 ... + 0.1 MPa			G	1													
	0 ... +0.16 MPa			G	2													
	0 ... +0.25 MPa			G	4													
	0 ... + 0.4 MPa			G	5													
	0 ... + 0.6 MPa			G	7													
	0 ... + 1 MPa			H	0													
	0 ... + 1.6 MPa			h	1													
	0 ... + 2.5 MPa		9	H	2													
	0 ... + 4 MPa		9	H	3													
	0 ... + 6 MPa		9	K	0													
Sealing material	FPM	Fluoro elastomer				0												
	EPDM	Ethylene propylene				1												
	NBR	Butadiene Acrylonitrile				2												
	MVQ	Silicone polymer				3												
Version	Not free of oil and grease					0												
	Free of oil and grease					1												
Output / power supply	0 ... 5 V	7 ... 33 VDC					1											
	1 ... 6 V	8 ... 33 VDC					6											
	0 ... 10 V	12 ... 33 VDC					2											
	0 ... 10 V	24 VAC ±15%					8	1,2,6										
	Ratiom. 10 ... 90%	5VDC ±10%					7											
	4 ... 20 mA	7 ... 33 VDC					3											
	4 ... 20 mA	10 ... 30 VDC					4	1,3										
		Ex protection																
Electrical connection ²⁾	Swift connector						0											
	Connector DIN EN 175301-803-A						1											
	Connector DIN EN 175301-803-C (mini DIN)						2											
	Connector M12x1 ³⁾ 2w: IN=1 / OUT=3 3w: IN=1 / OUT=4 / GND=3						3											
	Connector M12x1 ³⁾ 2w: IN=1 / OUT=3 3w: IN=1 / OUT=3 / GND=4						M											
	Connector RAST 2.5						4											
	Metri Pack Serie 150 ³⁾						5											
	Braids 80 ±10 mm						6											
	Braids 290 ±10 mm						7											
	Braids 480 ±10 mm						8											
	Braids 730 ±10 mm						9											
	Swift connector without or with cable 1.5 m						L											
Pressure connection ⁴⁾	Inside thread	G ¼ with O-Ring seal						1	1									
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	Outside thread	R ¼ acc. to DIN 2999						7	1									
	Outside thread	G ½ sealed at back and manometer (combi)						8	1									
	Outside thread	G ½ sealed at front						9	1									
Calibration certificate	Without																N	
	With																Z	
Pressure range variation	Indicate W and state range on order (e.g.: W0... + 0.3MPa/OUT1...8V)																	W

Dimensions in mm

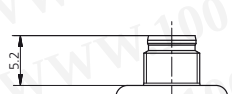
Metri-Pack



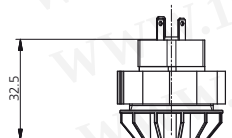
Swift connector



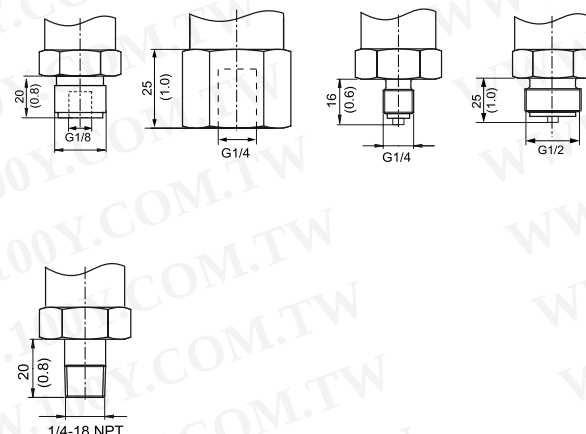
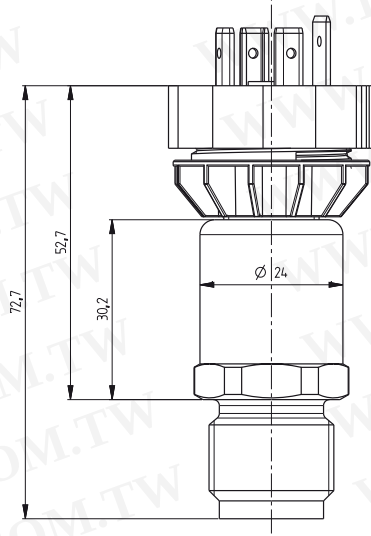
M12x1 / Fixcon



Connector DIN EN 175301-803-C



Connector DIN EN 175301-803-A



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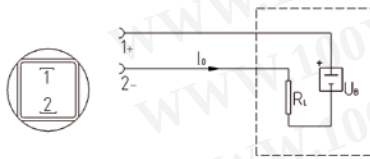
¹⁾ Other pressure ranges on request

³⁾ For pressure ranges 16 bar only possible if deaeration through the cable is assured

²⁾ Delivery without female connector

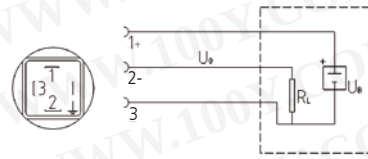
⁴⁾ Other pressure connections on request

Connecting with current output and plug complying with EN 175301



Connection 1 (IN) 2 (OUT)

Connecting with voltage output and plug complying with EN 175301



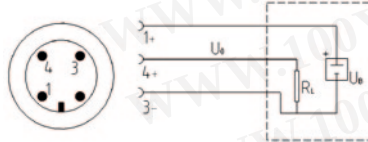
Connection 1 (IN) 2 (OUT) 3 (GND)

Connecting with current output and plug M12x1



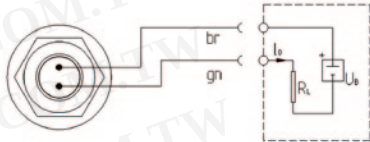
Connection 1 (IN) 3 (OUT)

Connecting with voltage output and plug M12x1



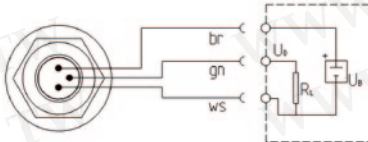
Connection 1 (IN) 3 (OUT) 4 (GND)
1 (IN) 4 (OUT) 3 (GND)

Connecting with current output and cable



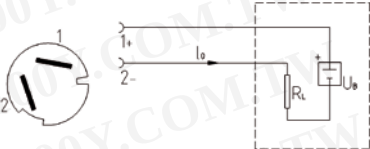
Connection 1 (IN) 2 (OUT)

Connecting with voltage output and cable



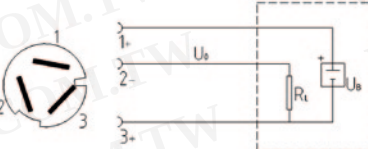
Connection br (IN) gn (OUT) ws (GND)

Connecting with current output and swift connector



Connection 1 (IN) 2 (OUT)

Connecting with voltage output and swift connector

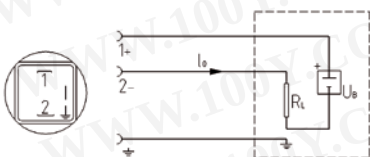


Connection 1 (IN) 2 (GND) 3 (OUT)

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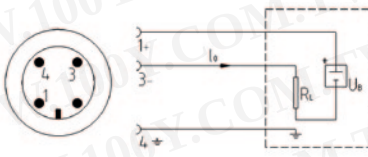
Device design with explosion protection: 4 to 20 mA - The grounding connection is conductively connected to the transmitter housing

Connecting with current output and plug complying with EN 175301 (Ex)



Connection 1 (IN) 2 (OUT)

Connecting with current output and plug M12x1 (Ex)



Connection 1 (IN) 3 (OUT) 4 (↓)

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Huba Control

FOR FINE PRESSURE AND FLOW MEASUREMENT

Huba Control AG Headquarters

Industriestrasse 17
5436 Würenlos
Telefon +41 (0) 56 436 82 00
Telefax +41 (0) 56 436 82 82
info.ch@hubacontrol.com

Huba Control AG Niederlassung Deutschland

Schlattgrabenstrasse 24
72141 Walddorfhäslach
Telefon +49 (0) 7127 23 93 00
Telefax +49 (0) 7127 23 93 20
info.de@hubacontrol.com

Huba Control SA Succursale France

Rue Lavoisier
Technopôle Forbach-Sud
57602 Forbach Cedex
Téléphone +33 (0) 387 847 300
Télécopieur +33 (0) 387 847 301
info.fr@hubacontrol.com

Huba Control AG Vestiging Nederland

Hamseweg 20A
3828 AD Hoogland
Telefoon +31 (0) 33 433 03 66
Telefax +31 (0) 33 433 03 77
info.nl@hubacontrol.com

Huba Control AG Branch Office United Kingdom

Unit 3 Network Point, Range Road
Witney Oxfordshire OX29 0YD
Phone +44 (0) 1993 776667
Fax +44 (0) 1993 776671
info.uk@hubacontrol.com

Huba Control AG Rep. Office Singapore

No. 16 Ayer Rajah Crescent Witney
#06-06B Tempco Technominium
139965 Singapore
Phone +65 (0) 61 004 822
Fax +65 (0) 63 994 822
info.sg@hubacontrol.com

Huba Control AG Rep. Office China

CBC Building, 49A Wuyi Road
Shanghai 200050
Phone +86 (0) 21 511 808 21
Fax +86 (0) 21 515 520 99
info.cn@hubacontrol.com

www.hubacontrol.com