

Pressure transducers DMU 02

Industrial version

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- Extremely resistant to shock, pulsation and vibration
- High overload safety
- Dynamic pressure resistance at high load changes
- Wetted area without seals due to welding
- No transmission liquid




Application For electronic pressure measurement in industrial applications, e.g. hydraulic, pneumatic, gas industry, refrigeration, automation, medical, as well as general mechanical and plant engineering applications.

Description Pressure transducers convert physical pressure into an electrical signal proportional to the pressure. DMU 02 is equipped with a piezo-resistive polysilicon thin-film measuring cell.

Technical specifications

Measuring accuracy	Material
Deviation from the characteristic curve according to IEC 60770 – limit point calibration (non-linearity, hysteresis, repeatability): <±0.5 % FSO	Housing: Stainless steel 304
	Pressure connection: Stainless steel 630
	Seal: Without
Measuring ranges	Supply voltage
Relative pressure:	DC 9–32 V
-1/0 to -1/+24 bar	EX version: DC 20–27 V
0/0.6 to 0/2000 bar	
Overpressure safety	Output signal
≤ 250 bar at least 2 x FS	4–20 mA, 2-wire
(burst pressure at least 3 x FS)	0–10 V, 3-wire
≤ 250 bar at least 1.5 x FS	
(burst pressure at least 2 x FS)	Load
≥ 1,000 bar at least 1.2 x FS	4–20 mA ≤ $\frac{U_B - U_{Bmin}}{0.02 A}$
(burst pressure at least 1.5 x FS)	At least 100 Ohm with EX version
Operating temperature range	0–10 V > 5 kOhm
Medium: -40/+125 °C	Current input
Ambient: -40/+105 °C	4–20 mA < 25 mA
Storage: -40/+125 °C	0–10 V < 20 mA
Temperature error band	Electrical protection
In compensated range	Short circuit proof and protected against reverse polarity
-20/+85 °C ≤ 0.15 % FSO/10 K	Electrical connection/degree of protection
Dynamic characteristics	Connector and junction box as per ISO 4400 (DIN 43650-A), IP 65
Response time < 1 ms	CE conformity (EMC)
Process connection	EMC Directive 2014/30/EU
G½B (EN 837-1/7.3)	

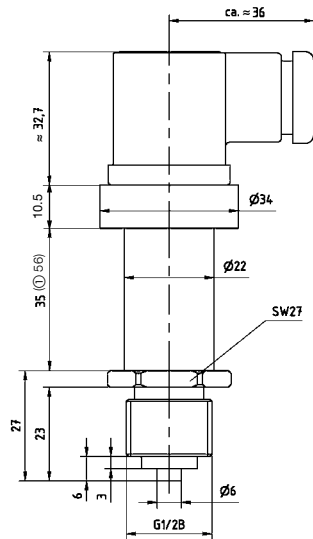
- Options**
- Other connection threads
 - Fixed cable connection
 - Other connectors
 - Other output signals
 - Cleaned for oxygen
 - EX version (II 1G Ex ia IIB T4) 

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See page 213 for prices.

Pressure transducers DMU 02

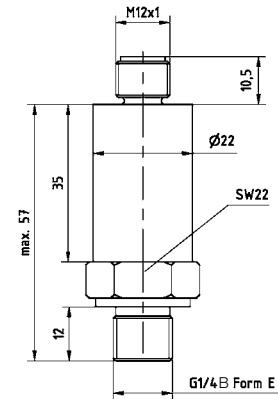
Dimensions (mm) and electrical connections

Connector ISO 4400 (DIN 43650-A)

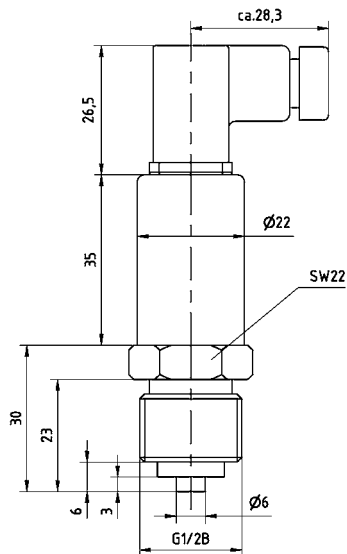


① EX version

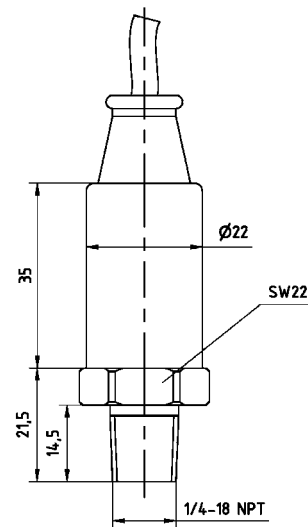
M12 connector



Connector DIN 43650-C



Fixed cable connection



Pin assignment table



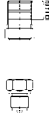

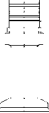
	Electrical connections		
	ISO 4400 (DIN 43650-A, EN 175301-803)	M 12 x 1 (4-pin) EN 61076-2-101	Cable outlet
2-wire system: Supply +	1	1	Red
Supply -	2	3	Black
Earth	Earth contact	-	-
3-wire system: Supply +	1	1	Red
Supply -	2	3	Black
Signal	3	4	White
Earth	Earth pin	-	-

The units are shipped with a detailed connection diagram.

Pressure transducers DMU 02/DMU 02 Vario

DG: H, PG: 4

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Type	DMU 02	DMU 02 HD High pressure	DMU 02 Vario Programmable*	DMU 02 Vario FBO flush with O ring	DMU 02 Vario CP Clamp
Version					
Measuring principle	Piezo-resistive polysilicon stainless steel measuring cell (thin-film)				
Measuring accuracy (IEC 60770)	0.5 % FSO	0.5 % FSO	0.3 % FSO		
Wetted parts	Stainless steel 630	Stainless steel 630	Stainless steel 630/316 L	Stainless steel 316 L/ FKM	Stainless steel 316 L
Connection	G½B EN 837	M18 x 1.5 male	G½B EN 837	G½B DIN 3852-A	ISO 2852 1"
Supply voltage	DC 9–32 V				
Output	4–20 mA				
System	2-wire				
Electrical connection	Connector and junction box as per ISO 4400 (DIN 43650-A)				
Offset error compensation	---	---	Subsequent zero calibration via magnet from the outside		
Measuring range	Part no.	Part no.	Part no.	Part no.	Part no.
Price €					
-1/0 bar	32801	---	32833	32863	32892
-1/+1.5 bar	32802	---	32834	32864	32893
-1/+3 bar	32803	---	32835*	32865	32894
-1/+5 bar	32804	---	32836	32866	32895
-1/+9 bar	32805	---	32837*	32867	32896
-1/+24 bar	32806	---	32838*	32868	32897
Price €					
0/600 mbar	32807	---	32841	---	---
Price €					
0/1 bar	32808	---	32842*	32872	32901
0/1.6 bar	32809	---	32843	32873	32902
0/2.5 bar	32810	---	32844*	32874	32903
0/4 bar	32811	---	32845	32875	32904
0/6 bar	32812	---	32846	32876	32905
0/10 bar	32813	---	32847*	32877	32906
0/16 bar	32814	---	32848	32878	32907
0/25 bar	32815	---	32849	32879	32908
0/40 bar	32816	---	32850*	32880	32909
0/60 bar	32817	---	32851	32881	---
0/100 bar	32818	---	32852	32882	---
Price €					
0/160 bar	32819	---	32853*	32883	---
0/250 bar	32820	---	32854	32884	---
0/400 bar	32821	---	32855	32885	---
0/600 bar	32822	---	32856	32886	---
0/1,000 bar	32823	---	32857*	---	---
0/1,600 bar	---	32829	---	---	---
0/2,000 bar	---	32830	---	---	---

* Programmable turn down 1:4 via optional programming tool (no asterisk = fixed measuring range)

Blue part no. = in-stock items



See pages 215/216 for extra charges.