



Pressure transmitter for industrial applications

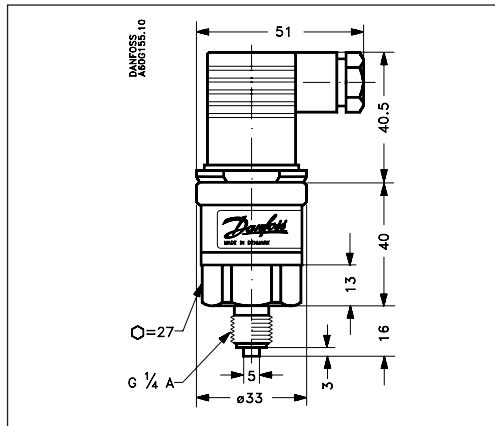
Type MBS 3000

Features



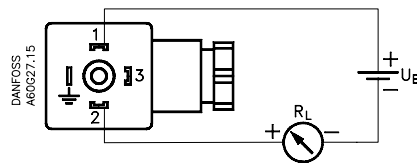
- Designed for use in demanding industrial environments
- Enclosure of acid-resistant stainless steel (AISI 316L)
- 4 - 20 mA output signals
- CE-marked: EMC protected in accordance with EU EMC Directive
- Temperature compensated and laser calibrated
- Typical applications:
 - Pumps
 - Compressors
 - Hydraulics
 - Pneumatics
 - Water treatment

Dimensions



Electrical connection,
Two-wire, 4-20 mA

Rectangular plug EN 175301-803-A



- 1 Supply +
- 2 Supply -
- 3 Unused
- ⊥ Connected to transmitter housing

Ordering

Pressure connection	Pressure range ¹⁾ P _e	Max. operation pressure	Min. burst pressure	Code no.
¼ - 18 NPT	0 - 60 psi	120 psi	750 psi	060G1140
	0 - 100 psi	300 psi	750 psi	060G1141
	0 - 150 psi	300 psi	750 psi	060G1142
	0 - 200 psi	750 psi	1450 psi	060G1143
	0 - 300 psi	750 psi	1450 psi	060G1144
	0 - 500 psi	1450 psi	12000 psi	060G1145
	0 - 750 psi	2900 psi	12000 psi	060G1146
	0 - 1000 psi	2900 psi	12000 psi	060G1147
	0 - 1500 psi	2900 psi	12000 psi	060G1148
	0 - 2000 psi	5800 psi	12000 psi	060G1149
0 - 3000 psi	8700 psi	23000 psi	060G1150	

¹⁾ Sealed gauge

Technical data
Performance

Accuracy (incl. non-linearity, hysteresis and repeatability)	±0.5% FS (typ.) ±1% FS (max.)
Non-linearity BFSL (conformity)	≤ ±0.2% FS
Hysteresis and repeatability	≤ ±0.1% FS
Thermal zero point shift	≤ ±0.1% FS/10K (typ.) ≤ ±0.2% FS/10K (max.)
Thermal sensitivity (span) shift	≤ ±0.1% FS/10K (typ.) ≤ ±0.2% FS/10K (max.)
Response time	< 4 ms
Max. operating pressure	See ordering table, page 3
Burst pressure	See ordering table, page 3

Electrical specifications

Rated output signal	4 to 20 mA
Supply voltage V_{supply} (polarity protected)	9 → 32 V d.c.
Supply voltage dependency	≤ ±0.05% FS/10 V
Current limitation	28 mA (typ.)
Max. load R_L	$R_L \leq \frac{V_{supply} - 9V}{0.02 A} [\Omega]$

Environmental conditions

Operating temperature range	-40 → +85°C		
Compensated temperature range	0 → +80°C		
Transport temperature range	-50 → +85°C		
EMC - Emission	EN 61000-6-3		
EMC Immunity	Electrostatic discharge	Air 8 kV Contact 4 kV	EN 61000-6-2
	RF field	10 V/m, 26 MHz - 1 GHz	
	conducted	3 V _{ms} , 150 kHz - 30 MHz	
	Transient	burst 4 kV (CM), Clamp surge 1 kV (CM, DM) at R _g = 42Ω	
Insulation resistance		> 100 MΩ at 100 V	
Mains frequency	500 V, 50 Hz	SEN 361503	
Vibration stability	Sinusoidal	20 g, 25 Hz - 2 kHz	IEC 60068-2-6
	Random	7.5 g _{rms} , 5 Hz - 1 kHz	IEC 60068-2-64
Shock resistance	Shock	500 g / 1 ms	IEC 60068-2-27
	Free fall		IEC 60068-2-32
Enclosure		IP 65 - IEC 60529	

Mechanical characteristics

Pressure connection	G ¼ A, ISO 228/1
Electrical connections	Rectangular EN 175301-803-A plug
Wetted parts, material	EN10088-1; 1.4404 (AISI 316 L)
Housing material	EN10088-1; 1.4404 (AISI 316 L)
Weight	0.2 kg