



**Pressure transmitter
for air and water applications
MBS 1900**

Features



- Designed for use in air and water applications
- Wetted parts of stainless steel (AISI 304)
- Pressure ranges in relative (gauge) or absolute from 0 up to 25 bar
- Output signals: 4 - 20 mA, or ratio metric
- Absolute or relative (gauge) sensor element
- A wide range of pressure and electrical connections
- Digitally compensated

Description

The pressure transmitter MBS 1900 is designed for use in air and water applications like Booster Pumps and Air Compressors.

The flexible pressure transmitter programme covers different output signals, absolute and gauge (relative) versions, measuring ranges from 0-4 bar to 0-25 bar and a wide range of pressure and electrical connections.

Enclosure material is stainless steel AISI 316L.

Ordering standard versions

Measuring range P _e	Type	Code no.
0 - 6 bar	MBS 1900 - 1811 - A0AB04	064G6501
0 - 10 bar	MBS 1900 - 2011 - A0AB04	064G6502
	MBS 1900 - 2011 - A1PT04	064G6543
	MBS 1900 - 2011 - A4PT04	064G6544
0 - 16 bar	MBS 1900 - 2211 - A0AB04	064G6503
	MBS 1900 - 2211 - A0GB04	064G6511
	MBS 1900 - 2211 - B1GB04	064G6513
	MBS 1900 - 2216 - B1GB04	064G6512
	MBS 1900 - 2211 - A1PT04	064G6542
	MBS 1900 - 2211 - A4PT04	064G6553
0 - 25 bar	MBS 1900 - 2411 - A0AB04	064G6504
0 - 100 Psi	MBS 1900 - 5811 - A0AC04	064G6514
0 - 200 Psi	MBS 1900 - 6211 - A0AC04	064G6515
0 - 250 Psi	MBS 1900 - 6311 - A0AC04	064G6510
	MBS 1900 - 6311 - B1AC04	064G6508
	MBS 1900 - 6316 - B1AC04	064G6509
0 - 300 Psi	MBS 1900 - 6411 - A0AC04	064G6516

Technical data
Performance (EN 60770)

Accuracy (at reference condition, 20°C)	±1% FS (typ.)
Non-linearity BFSL (conformity)	≤ ±0.5% FS
Hysteresis and repeatability	≤ ±0.1% FS
Total error band	±3%
Response time	< 50 ms
Overload pressure (static)	3 × FS (max. 75 bar)
Burst pressure	4 × FS (max. 100 bar)
Durability, P: 10-90% FS	>10×10 ⁶ cycles

Electrical specifications

	Nom. output signal (short-circuit protected)	
	4 – 20 mA	Ratiometric (10-90% of V _{supp})
Supply voltage [U _B], polarity protected	9 → 28 V	5 V ± 10%
Supply - current consumption	–	≤ 5 mA
Supply voltage dependency	≤ ±0.2% FS/10 V	
Load [R _L] (load connected to 0 V)	$R_L \leq (U_B - 9V)/0.02 \text{ A}$	$R_L \geq 5 \text{ K}\Omega @ 5 \text{ V d.c.}$
Output impedance	–	< 25 Ω

Environmental conditions

Medium temperature range	0 → +80°C	
Ambient temperature range (depending on electrical connection)	–20°C → 80°C	
Compensated temperature range	0 → +80°C	
Transport temperature range	–50 → +85°C	
EMC - Emission	EN 61000-6-3	
EMC Immunity	EN 61000-6-2	
Insulation resistance	> 100 MΩ at 100 V	
Vibration stability	Sinusoidal	15g, 5 Hz - 2 kHz
	Random	7.2g _{rms} , 5 Hz - 1 kHz
Shock resistance	Shock	200g / 1 ms
	Free fall	
Enclosure (depending on electrical connection)	see page 4	

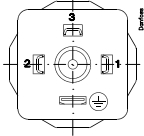
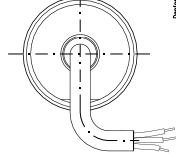
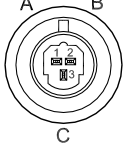
Mechanical characteristics

Materials	Wetted parts	EN 10088-1; 1.4301 (AISI 304)
	Enclosure	EN 10088-1; 1.4404 (AISI 316L)
	Electrical connections	see page 4
Weight (depending on pressure connection and electrical connection)	0.15 - 0.3 kg	

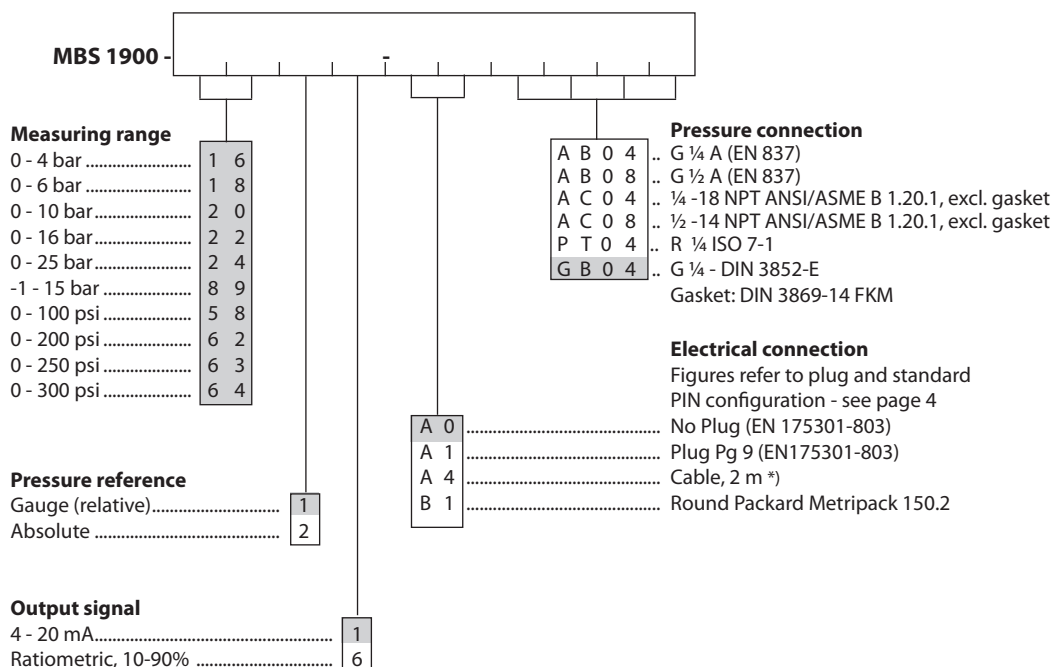
Mounting instructions

Width across flats	24 mm
Tightening torque	25 Nm

Electrical connections

Type code, page 5		A0, A1	A4	B1
		EN 175301-803 	2 m cable 	Round Packard metripack 150.2 
Ambient temperature		-20 → + 80°C	-20 → + 80°C	-20 → + 80°C
Enclosure		IP 65	IP 65	IP 65
Materials		Glass filled polyamid, PA 6.6	PVC cable	Glass filled PBT
Electrical connection	4 - 20 mA (2 wire)	Pin 1: + supply Pin 2: ÷ supply Pin 3: Not used Earth: Not connected to MBS enclosure	Brown wire: + supply Black wire: ÷ supply	Pin A: - supply Pin B: + supply Pin C: Not used
	Ratiometric 10 - 90%	Pin 1: + supply Pin 2: ÷ supply Pin 3: Output Earth: Not connected to MBS enclosure	Brown wire: Output Black wire: ÷ supply Red wire: + supply	Pin A: - supply Pin B: + supply Pin C: Output

Ordering of special versions



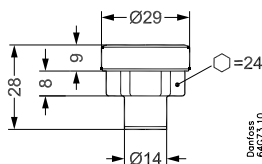
■ Preferred versions

*) Only available as sealed gauge versions

Non-standard build-up combinations may be selected. However, minimum order quantities may apply. Please contact your local Danfoss office for further information or request for other versions.

Dimensions / Combinations

Type Code	A0	A1	A4	B1
	(EN175301-803)	EN175301-803, Pg 9	2 m cable	Round Packard Metripack 150.2



	G ¼ A (EN 837)	G ½ A (EN 837)	¼ - 18 NPT	½ - 14 NPT	DIN 3852-E-G ¼ A Gasket: DIN 3869-14	ISO 7-1 R ¼
Type Code	AB04	AB08	AC04	AC08	GB04	PT04

