



**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
- RoHS conformity

**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 <sub>e</sub>	Type	Code no.
0 - 6 bar	MBS 1900 - 1811 - A0AB04	<b>064G6501</b>
0 - 10 bar	MBS 1900 - 2011 - A0AB04	<b>064G6502</b>
	MBS 1900 - 2011 - A1PT04	<b>064G6543</b>
0 - 16 bar	MBS 1900 - 2211 - A1AB04	<b>064G6523</b>
	MBS 1900 - 2211 - A0GB04	<b>064G6511</b>
	MBS 1900 - 2211 - B1GB04	<b>064G6533</b>
	MBS 1900 - 2216 - B1GB04	<b>064G6532</b>
0 - 25 bar	MBS 1900 - 2211 - A1PT04	<b>064G6542</b>
	MBS 1900 - 2411 - A0AB04	<b>064G6504</b>
0 - 100 psi	MBS 1900 - 5811 - A0AC04	<b>064G6514</b>
0 - 200 psi	MBS 1900 - 6211 - A0AC04	<b>064G6515</b>
0 - 250 psi	MBS 1900 - 6311 - A0AC04	<b>064G6510</b>
	MBS 1900 - 6311 - B1AC04	<b>064G6528</b>
	MBS 1900 - 6316 - B1AC04	<b>064G6529</b>
0 - 300 psi	MBS 1900 - 6411 - A0AC04	<b>064G6516</b>

**Technical data**
*Performance (EN 60770)*

Accuracy (@20°C) (incl. non-linearity, hysteresis and repeatability)	±1% FS
Non-linearity BFSL (conformity)	≤ ±0.5% FS
Hysteresis and repeatability	≤ ±0.1% FS
Total error band inside the compensated temperature range	±3%
Response time	< 4 ms
Overload pressure (static)	3 × FS (max. 75 bar)
Burst pressure	4 × FS (max. 100 bar)
Durability, P: 10-90% FS	>10×10 <sup>6</sup> cycles

*Electrical specifications*

	Nom. output signal (short-circuit protected)	
	4 – 20 mA	Ratiometric (10-90% of V <sub>supp.</sub> )
Supply voltage [U <sub>b</sub> ], polarity protected	9 → 28 V	5 V ± 10%
Supply - current consumption	–	≤ 5 mA
Supply voltage dependency	≤ ±0.2% FS/10 V	
Load [R <sub>L</sub> ] (load connected to 0 V)	R <sub>L</sub> ≤ (U <sub>b</sub> - 9V)/0.02 A	R <sub>L</sub> ≥ 5 KΩ @ 5 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 up to 2.7 GHz	EN 61000-6-2	
Insulation resistance	> 100 MΩ at 500 V	
Vibration stability	Sinusoidal	15g, 5 Hz - 2 kHz
	Random	7.2g <sub>rms</sub> , 5 Hz - 1 kHz
Shock resistance	Shock	200g / 1 ms
	Free fall	IEC 60068 - 2 - 32
Enclosure (depending on electrical connection)	see page 5	

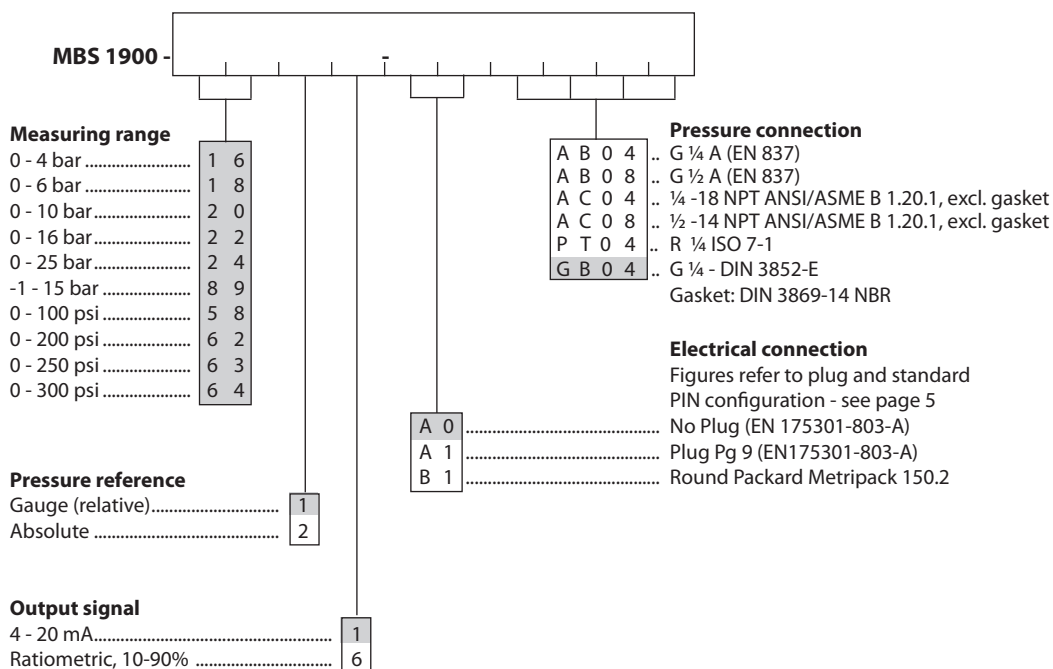
*Mechanical characteristics*

Materials	Wetted parts	EN 10088-1; 1.4301 (AISI 304) EN 10088-1; 1.4404 (AISI 316L)
	Enclosure	EN 10088-1; 1.4404 (AISI 316L)
	Electrical connections	see page 5
Weight (depending on pressure connection and electrical connection)	0.15 - 0.3 kg	

*Mounting instructions*

Width across flats	24 mm
Mounting torque max.	20 Nm

Ordering of special versions

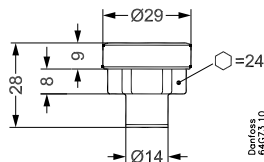


■ Preferred versions

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	B1
	(EN175301-803-A)	EN175301-803-A, Pg 9	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
<b>Type Code</b>	<b>AB04</b>	<b>AB08</b>	<b>AC04</b>	<b>AC08</b>	<b>GB04</b>	<b>PT04</b>
Recommended torque	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm

Electrical connections

Type code, page 4		A0, A1 EN 175301-803-A	B1 Round Packard metripack 150.2
Ambient temperature		-20 → + 80°C	-20 → + 80°C
Enclosure (IP protection fulfilled together with mating connector)		IP 65	IP 65
Materials		Glass filled polyamid, PA 6.6	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	Pin 1 (A): - supply Pin 2 (B): + supply Pin 3 (C): Not used
	Ratiometric 10 - 90%	Pin 1: + supply Pin 2: ÷ supply Pin 3: Output Earth: Not connected to MBS enclosure	Pin 1 (A): - supply Pin 2 (B): + supply Pin 3 (C): Output

