



**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 _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
0 - 16 bar	MBS 1900 - 2211 - A1AB04	064G6523
	MBS 1900 - 2211 - A0GB04	064G6511
	MBS 1900 - 2211 - B1GB04	064G6533
	MBS 1900 - 2216 - B1GB04	064G6532
	MBS 1900 - 2211 - A1PT04	064G6542
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	064G6528
	MBS 1900 - 6316 - B1AC04	064G6529
0 - 300 psi	MBS 1900 - 6411 - A0AC04	064G6516

Approvals

UL Approval, us
Certificate number: E31024

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 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 ≤ (U _b - 9V)/0.02 A	R _L ≥ 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 _{rms} , 5 Hz - 1 kHz
Shock resistance	Shock	200g / 1 ms
	Free fall	IEC 60068 - 2 - 32
Enclosure (depending on electrical connection)	see page 5	

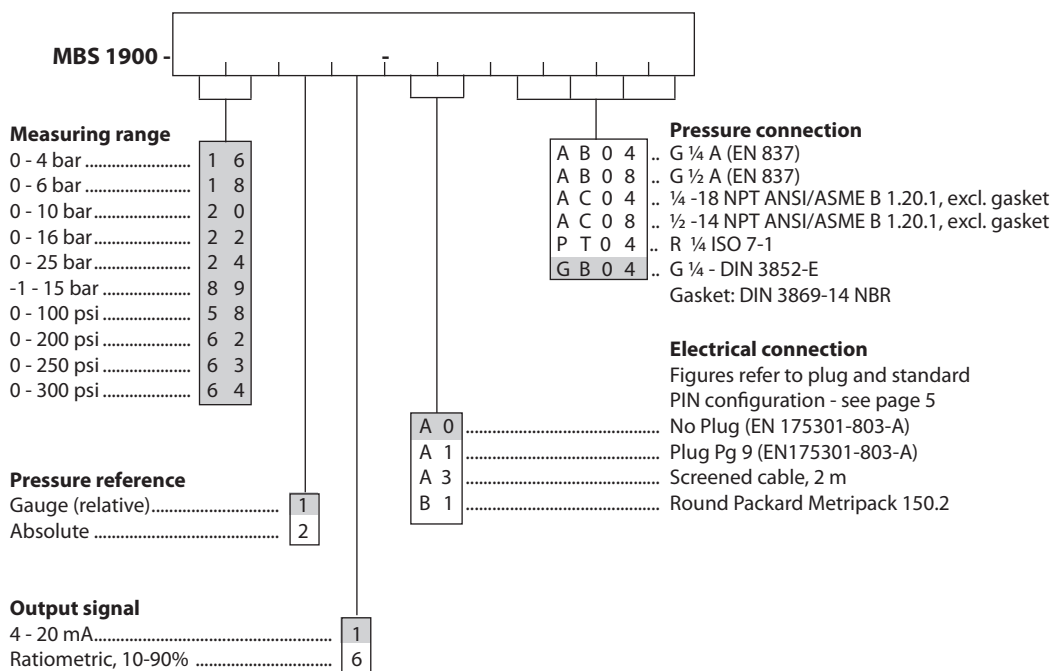
Mechanical characteristics

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

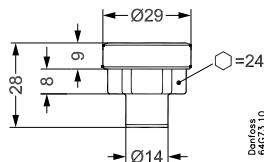


■ Preferred versions

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.

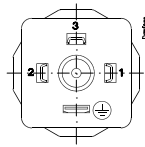
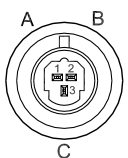
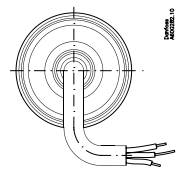
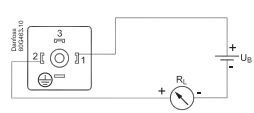
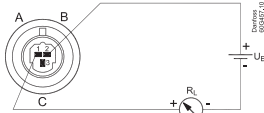
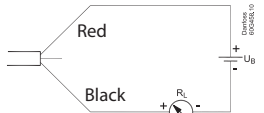
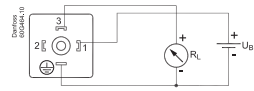
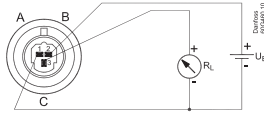
Dimensions / Combinations

Type Code	A0	A1	B1	A3
	(EN175301-803-A)	EN175301-803-A, Pg 9	Round Packard Metripack 150.2	2 m screened cable



	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
Recommended torque	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm

Electrical connections

Type code, page 4		A0, A1	B1	A3
		EN 175301-803-A 	Round Packard metripack 150.2 	2 m screened cable 
Ambient temperature		-20 → + 80°C	-20 → + 80°C	-20 → + 80°C
Enclosure (IP protection fulfilled together with mating connector)		IP 65	IP 65	IP 67
Materials		Glass filled polyamid, PA 6.6	Glass filled, PBT	Glass filled polyamid, PA 6.6. PVC
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 	Black: - supply Red: + supply Brown: Not used Screen: I Not connected to MBS enclosure 
	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 	Black: - supply Red: + supply Brown: output signal Screen: I Not connected to MBS enclosure 