



The M1500 digital pressure transmitter is a precise microprocessor-based measurement device for the measurement of differential, gauge, compound or absolute pressure.

- Differential, Gauge or Absolute Pressure
- Ranges from 25 mbar to 200 bar
- Accuracy of ± 0.025 % of F.S.
- MSP Meriam Serial Protocol RS-232, RS-485 or USB
- RS485 Networking with up to 32 Transmitters
- Optional Current or Voltage Output

Technical Description

The digital pressure transmitter M1500 has an accuracy of ± 0.025 % F.S. and better. The units offers different digital and analogue outputs. The serial and USB interfaces allow configuration and collecting data via PC as well as net-working with the transmitter.

Specifications

Sensor Type and Pressure Measuring Range

DN:	Differential	Non-isolated	0 - 25 /.../ 5000 mbar
DI:	Differential	Isolated	0 - 0,7 /.../ 35 bar
GI:	Gauge	Isolated	0 - 1 /.../ 200 bar
CI:	Compound	Isolated	-1.. 1 /.../ 200 bar
AI:	Absolute	Isolated	0 - 1,2 /.../ 70 bar

A measuring range of -20 up to +120 % F.S. is usable.

Accuracy

Digital output (RS485): ± 0.025 % F.S. *

Analog output (current or voltage): ± 0.06 % F.S. *

Accuracy of digital output is valid for the whole range of operating temperature and considers all relevant influ-ences. The analogue outputs show a maximum tempera-ture drift of ± 0.005 % F.S. per °C.

The long-term stability is ± 0.1 % F.S. per year.

The certificate is NIST traceable.

Temperature Conditions

Storage: -40 ... +60 °C

Operating: -20 ... +50 °C

Media Compatibility

DN sensor (non-isolated): clean, dry, non-corrosive gases.

DI-/GI-/ CI-/AI-sensor (isolated): gases and fluids compati-ble with stainless steel (316ss).

Pressure Limits

DI/DN sensors: twice the upper range limit when pressur-ized on high side only and 10 bar static when applied to both sides of the sensor simultaneously.

CI/GI/AI sensors: twice the upper range limit.

Enclosure

Dimensions:	35 x 55 x 120 mm (HxWxD)
Material:	aluminium, anodised
Total Weight of	DN-/CI-/GI-/AI- \approx 350 g
DI- models:	\approx 460 g
Ingress Protection:	IP 40

Process Connections

1/8" NPTf, stainless steel 316ss (CI/GI/AI: 1 x, DN/DI: 2 x)

Electrical Connections (Supply / Outputs)

RS-485/ RS232	Terminal 7-pole and SUB-D 9-pole
USB	Type B (fem.)
Analogue	Terminal, 7-pole and 2x 2-pole

Power Supply

24 VDC (17 to 32 VDC)

Special Features

Networking

MSP Meriam Serial Protocol: USB, RS-232 or RS-485: max. 32 devices with different address can be connected to a network.

Engineering Units

Selectable: mbar, bar, kPa, kg/cm², cm H₂O, mm Hg, In. Hg, In. H₂O for reference temperatures of 4 °C, 20 °C or 60 °F, PSI and user defined units/scaling.

Damping

Averaging interval: 0,1 to 50 seconds.

ZERO-Function

Zeroing is allowed within min./ max. ± 5 % F.S.

Ordering Information

Part No. Structure: M1500- aaaaaa -bb-c

aaaaaa	Measuring Range	aaaaaa	Measuring Range
DN0010 *	0 - 25 mbar *	DI/GI/CI0100	-1/0 - 7 bar
DN0028	0 - 70 mbar	DI/GI/CI0300	-1/0 - 21 bar
DN0200	0 - 500 mbar	DI/GI/CI0500	-1/0 - 35 bar
DN0415	0 - 1 bar	GI/CI1000	-1/0 - 70 bar
DN2000	0 - 5 bar	GI/CI3000	-1/0 -200bar
DI0001	0 - 70 mbar	AI0017	0 - 1,2 bar
DI0005	0 - 350 mbar	AI0038	0 - 2,6 bar
DI/GI/CI0015	-1/0 - 1 bar	AI0100	0 - 7 bar
DI/GI/CI0030	-1/0 - 2 bar	AI1000	0 - 70 bar
GI/CI0050	-1/0 - 3,5 bar		

bb Output Option

01	RS-232	Digital Communication,
02	RS-485	Digital Communication
03	USB 2.0	Digital Communication
04	Analogue Output	4-20 mA DC or 0 to 5 V DC, USB communication for configuration only

c Digital Communication Protocol

0	Not applicable: 4-20 mA or 0-5 V output
1	MSP Meriam Serial Protocol: RS-232, RS-485, USB

* DN0010 only with $\pm 0,05/\pm 0,085$ %F.S. dig./anal. accuracy

Part No.

Accessories

7621-1	RS-485/RS-232 interface converter and AC/DC power adapter 230 VAC/ 24 VDC
9P342	USB Cable for USB models; type B (Male) by type A (Male)
9P337	USB Cable for Analog output units; type A x type mini-B, 6 ft.