

MNO



The rigid stem configuration makes installation fast and easy

MN1



The flexible configuration is designed for applications requiring further thermal isolation or where installation would be otherwise difficult or impractical

MN2



The pressure / temperature configuration requires only one mounting hole for the measurement of both process values

MN3



The exposed capillary configuration is ideal to fit in space-restricted locations

Main features

- Pressure ranges from:
0-35 to 0-2000 bar / 0-500 to 0-30000 psi
- Strain gage Wheatstone bridge
- Accuracy :
<±0.25% FSO (H); <±0.5% FSO (M)
- Internally generated 80% calibration signal (R-Cal)
- Fluid-filled system for temperature stability
- Fully interchangeable with all existing brands
- Grade of protection: IP65
- 1/2-20UNF, M18x1.5 standard threads ; other types available on request
- Standard diaphragm is 15-5 PH stainless steel with Armoloy coating
- 17-7 PH corrugated diaphragm with TiN coating (Titanium Nitride) for ranges below 100bar-1500psi
- Other diaphragms available on request

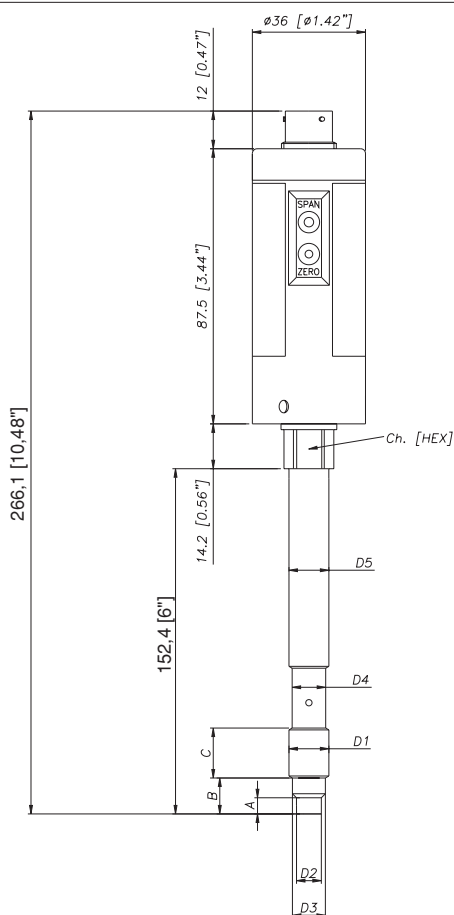
TECHNICAL SPECIFICATIONS

Nominal accuracy including Linearity, Repeatability, Hysteresis	H <±0.25%FSO (100...2000 bar) M <±0.5%FSO (35...2000 bar)
Resolution	Infinite
Measurement range	0..35 to 0..2000bar 0..500 to 0..30000psi
Maximum overpressure	2 x FS 1.5 x FS above 1000bar/15000psi
Measurement principle	Strain gage Wheatstone bridge
Supply voltage	15-30Vdc
Maximum current consumption	40mA ⁽¹⁾
Isolation resistance (at 50Vdc)	>1000 MOhm
Full Scale Output (FSO)	5Vdc (M, H) 5.1Vdc (B) 10Vdc (N, L) 10.1Vdc (C)
Zero balance	0Vdc (M, N, H, L) 0.1Vdc (B, C)
Signals adjustment : Nominal pressure Ambient pressure	5% FSO min. 10 bar (150psi)
Maximum load	1mA
Response time (10 to 90% FSO)	~ 4ms
Output noise (RMS 10-400Hz)	< 0.05% FSO
Calibration signal	80% FSO
Protection against output shortcircuit and supply voltage inverted polarity	YES
Protection against output voltage spikes	YES According to 89/336/EEC
Strain gauge housing compensated temperature range	0...+76°C 32...170°F
Maximum housing temperature range	-30...+85°C -22...185°F
Thermal drift in compensated range Zero/Calibr./Sens.	< 0.02 %FSO/°C < 0.01 %FSO/°F
Diaphragm maximum temperature	400°C 750°F
Zero drift due to change in process temperature	0.02 bar/°C 15 psi/100°F
Material in contact with process medium	- Standard 15-5 PH with Armoloy coating 17-7 PH corrugated diaphragm with Titanium Nitride coating for ranges <100 bar (1500psi)
Thermocouple (model MN2)	STD : type "J" (isolated junction)
Protection degree	IP65
Electrical connections	6-pin Conn. VPT07RA10-6PT (PT02A-10-6P)

(1) Conditions : 30Vdc supply, maximum allowed load, calibration shunt inserted

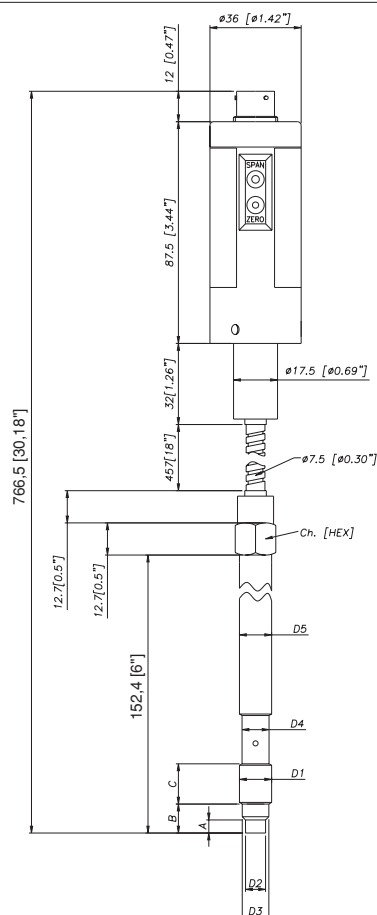
FSO = Full Scale Output (output signal at nominal pressure)

MECHANICAL DIMENSIONS



MNO

D1	1/2 - 20UNF
D2	$\phi 7.8 -0.05$ [$\phi 0.31$ " -0.002]
D3	$\phi 10.5 -0.025$ [$\phi 0.41$ " -0.001]
D4	$\phi 10.67$ [$\phi 0.42$ "]
D5	$\phi 12.7$ [$\phi 0.5$ "]
A	5.56 -0.26 [0.22" -0.01]
B	11.2 [0.44"]
C	15.74 [0.62"]
Ch	16
[Hex]	[5/8"]

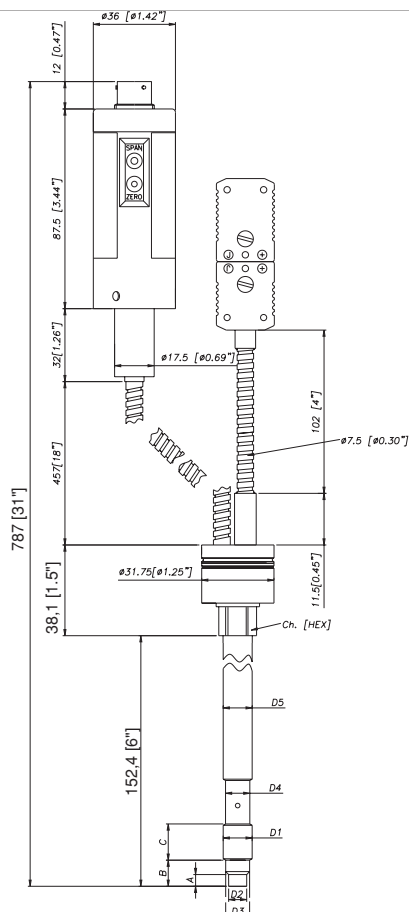


MN1

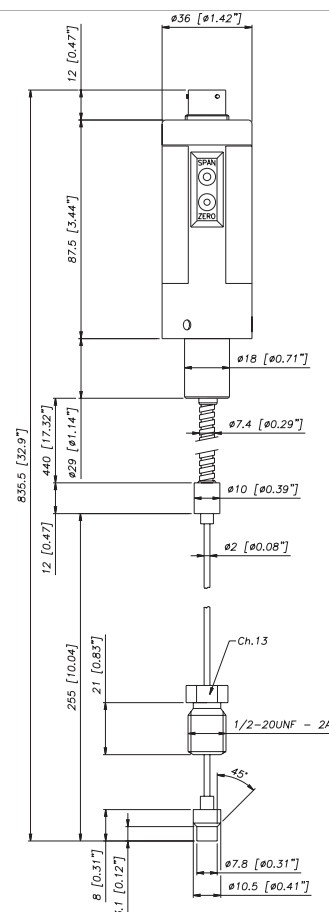
D1	M18x1,5
D2	$\phi 10 -0.05$ [$\phi 0.394$ " -0.002]
D3	$\phi 16 -0.08$ [$\phi 0.63$ " -0.003]
D4	$\phi 16 -0.4$ [$\phi 0.63$ " -0.016]
D5	$\phi 18$ [$\phi 0.71$ "]
A	6 -0.26 [0.24" -0.01]
B	14.8 -0.4 [0.58" -0.016]
C	19 [0.75"]
Ch	19
[Hex]	[3/4"]

NOTE :
Dimensions refer to rigid stem length option "4" (153mm - 6")

WARNING :
For installation use a maximum tightening torque of 56 Nm
500 in-lb



MN2

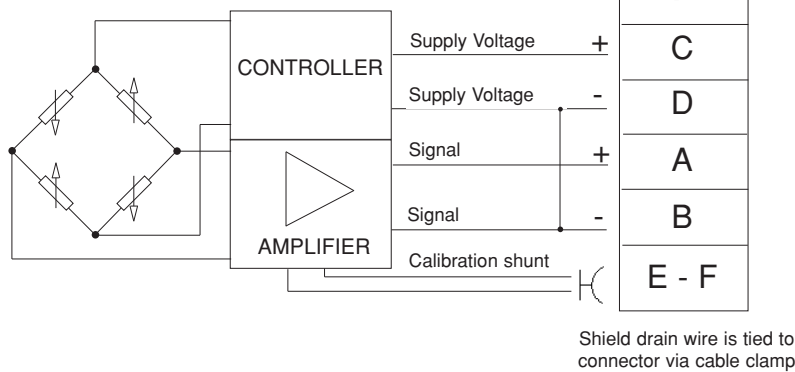


MN3

ELECTRICAL CONNECTIONS

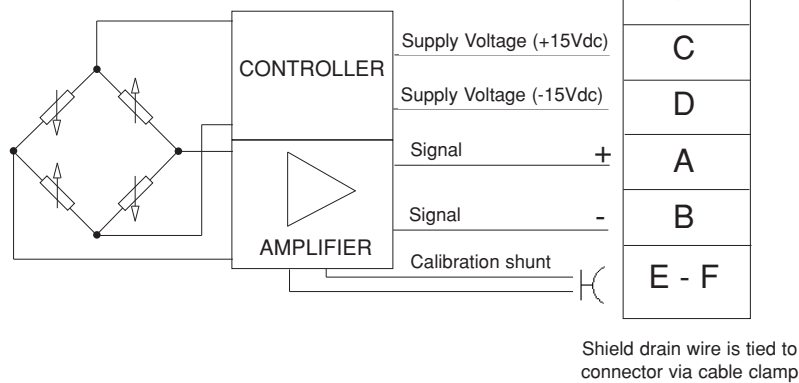
VOLTAGE OUTPUT (M, N, B, C)

Power supply 15..30Vdc

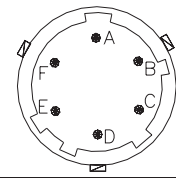


VOLTAGE OUTPUT (H, L)

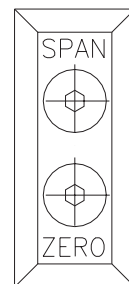
Power supply -15..+15Vdc



6 pin connector
VPT07RA10-6PT2
(PT02A-10-6P)



ADJUSTMENTS



ZERO and SPAN adjustment can be made by trimpots inside the transmitter body and accessible after removing the two protection screws.

SPAN is factory set and should not be adjusted.

ACCESSORIES

Connectors

6-pin mating connector (IP65 protection degree)

CON300

Extension cables

6-pin connector with 8m (25ft) cable
6-pin connector with 15m (50ft) cable
6-pin connector with 25m (75ft) cable
6-pin connector with 30m (100ft) cable

**C08WLS
C15WLS
C25WLS
C30WLS**

Other lengths

consult factory

Cable color code

Conn.	Wire
A	Red
B	Black
C	White
D	Green
E	Blue
F	Brown

Accessories

Mounting bracket
Dummy plug for 1/2-20UNF
Dummy plug for M18x1.5
Drill kit for 1/2-20UNF
Drill kit for M18x1.5
Cleaning kit for 1/2-20UNF
Cleaning kit for M18x1.5

**SF18
SC12
SC18
KF12
KF18
CT12
CT18**

Thermocouple for MN2 model

Type "J" (153mm - 6" stem)
Type "K" (153mm - 6" stem)

**TTER 000
TTER 002**

ORDER CODE

OUTPUT SIGNAL	
0 .. 5Vdc	M
0 .. 10Vdc	N
0.1 .. 5.1Vdc	B
0.1 .. 10.1Vdc	C
0..5Vdc (-15/+15Vdc supply)	H
0..10Vdc (-15/+15Vdc supply)	L

VERSION	
Rigid stem	0
Rigid stem + flexible	1
With thermocouple	2
Exposed capillary	3

CONNECTOR	
Standard	
6 pin	6

ACCURACY CLASS	
0.25% FSO (ranges ≥ 100 bar/1500 psi)	H
0.5% FSO	M

RANGE			
bar		psi	
35	B35U	500	P05C
50	B05D	750	P75D
70	B07D	1000	P01M
100	B01C	1500	P15C
200	B02C	3000	P03M
350	B35D	5000	P05M
500	B05C	7500	P75C
700	B07C	10000	P10M
1000	B01M	15000	P15M
1400	B14C	20000	P20M
2000	B02M	30000	P30M

FLEXIBLE LENGTH (mm / inches)	
Standard (MN0)	
0	none
Standard (MN1, MN2)	
D	457mm 18"
E	610mm 24"
F	760mm 30"
Standard (MN3)	
L	711mm 28"
Available on request	
A	76mm 3"
B	152mm 6"
C	300mm 12"
G	914mm 36"
H	1067mm 42"
I	1220mm 48"
J	1372mm 54"
K	1520mm 60"

RIGID STEM LENGTH (mm / inches)	
Standard (MN0, MN1, MN2)	
4	153mm 6"
5	318mm 12.5"
Standard (MN3)	
0	none
Available on request	
1	38mm 1.5"
2	50mm 2"
3	76mm 3"
6	350mm 14"
7	400mm 16"
8	456mm 18"

THREAD	
Standard	
1	1/2 - 20 UNF
4	M18 x 1.5
Available on request	
2	M10 x 1 (ranges ≥ 200 bar/3000 psi)
3	M14 x 1.5

Examples

MN2-6-M-B07C-1-4-D-000

Melt pressure transmitter with type "J" thermocouple, 0..10Vdc output, 6-pin connector, 1/2-20UNF thread, 700bar full scale, 0.5 % accuracy class, 153 mm (6") rigid stem, 457mm (18") flexible capillary.

MM0-6-M-P03M-1-4-0-000

Melt pressure transmitter, rigid stem, 0..5Vdc output, 6-pin connector, 1/2-20UNF thread, 3000psi full scale, 0.5 % accuracy class, 153 mm (6") rigid stem

GEFRAN reserves the right to make any kind of design or functional modification at any moment without prior notice.



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