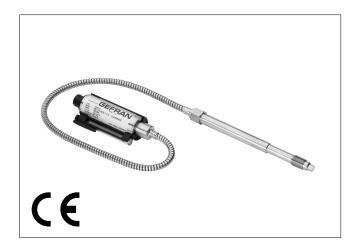


MELT PRESSURE TRANSMITTERS

ME SERIES

Output 4...20mA



MAIN FEATURES

- Pressure ranges from:
 0-35 to 0-2000 bar / 0-500 to 0-30000 psi
- Accuracy: < ±0.25% FSO (H); < ±0.5% FSO (M)
- · Fluid-filled system for temperature stability
- Mercury filling volume: ME0 (30mm³); ME1, ME2, ME3 (40mm³)
- 1/2-20UNF, M18x1.5 standard threads; other types available on request
- Autozero function on board / external option
- · Drift Autocompensation function (SP version)
- Standard diaphragm is 15-5 PH stainless steel with GTP+ coating
- 17-7 PH corrugated diaphragm with GTP+ coating for ranges below 100 bar-1500 psi

GTP+ (advanced protection)
Coating with high resistance against corrosion, abrasion and high temperature

AUTOZERO FUNCTION

All signal variations in the absence of pressure can be eliminated by using the Autozero function.

This function is activated by closing a magnetic contact located on the transmitter housing.

The procedure is permitted only with pressure at zero.

AUTOCOMPENSATES INFLUENCE OF MELT TEMPERATURE

Thanks to internal self-compensation, the MSP series transmitter cancels the effect of pressure signal variation caused by variation of Melt temperature.

This reduces at the minimum the read error caused by heating of the filling fluid (typical of all sensors built with "filled" technology). The ME series of Gefran, are pressure transmitters for using in High temperature environment.

The main characteristic of this series is the capability to read temperature of the media up to 400°C.

The constructive principle is based on the hydraulic trasmission of the pressure.

The fluid-filled system assures the temperature stability. The phisical measure is transformed in a electrical measure by means the strain-gauge technology.

TECHNICAL SPECIFICATIONS

Accuracy (1)	H <±0.25%FSO (1002000 bar) M <±0.5%FSO (352000 bar)
Resolution	Infinite
Measurement range	035 to 02000bar 0500 to 030000psi
Maximum overpressure (without degrading performances)	2 x FS 1.5 x FS above 1000bar/15000psi
Measurement principle	Extensimetric
Power supply	1030Vdc
Maximum current absorption	32mA
Insulation resistance (at 50Vdc)	>1000 MOhm
Output signal Full Scale (FSO)	20mA
Zero balance (tollerance ± 0.25% FSO)	4mA
Zero signals adjustment (tollerance ± 0.25% FSO)	"Autozero" function
Span adjustment within ± 5% FSO	See Manual
Maximum allowed load	See diagram
Response time (1090% FSO)	~ 1ms
Output noise (RMS 10-400Hz)	< 0.025% FSO
Calibration signal	80% FSO
Output short circuit ingress and reverse polarity protection	YES
Compensed temperature range	0+85°C
Operating temperature range	-30+105°C
Storage temperature range	-40+125°C
Thermal drift in compesated range: Zero / Calibration / Sensibility	< 0.02% FSO/°C
Diaphragm maximum temperature	400°C / 750°F
Zero drift due to change in process temperature (zero)	< 0.02 bar/°C
Zero drift temperature for Autocompensated version (SP) within the temperature range 20°C-400°C inclusive the drift temperature of the housing	< 0.003 bar/°C 100 ≤ p < 500 bar 0.0014 %FS/°C p ≥ 500 bar
Standard material in contact with process medium	Diaphragm: • 15-5 PH with GTP+ coating • 17-7 PH corrugated diaphragm with GTP+ coating for ranges <100 bar (1500psi) Stem: • 17-4 PH
Thermocouple (model ME2)	STD: type "J" (isolated junction)
Protection degree (with 6-pole female connector)	IP65

 $\label{eq:FSO} FSO = Full scale output: (1) BFSL method (Best Fit Straight Line): includes combined effects of Non-Linearity, Hysteresis and Repeatability.$

Liên hệ tư vấn:

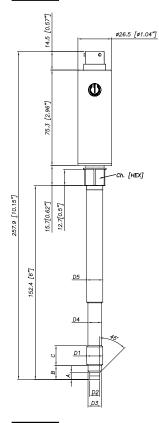
Email: han@ansgroup.asia Phone: 0937.720.487 - Ms Hân



MECHANICAL DIMENSIONS

■ ■ ■ ■ Leading automation, Leading innovation





ME1

14.5 [0.57"]

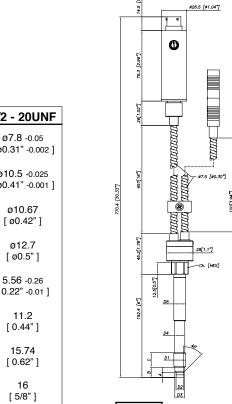
75.3 [2.96"]

ø26.5 [ø1.04"]

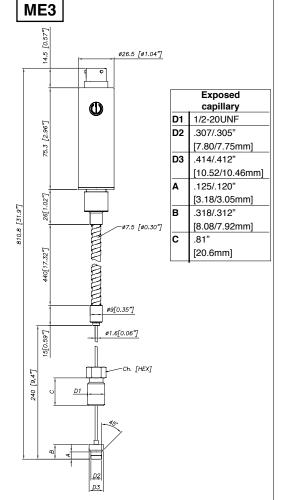
D1	1/2 - 20UNF
D2	Ø7.8 -0.05 [Ø0.31" -0.002]
D3	Ø10.5 -0.025 [Ø0.41" -0.001]
D4	ø10.67 [ø0.42"]
D5	ø12.7 [ø0.5"]
Α	5.56 -0.26 [0.22" -0.01]
В	11.2 [0.44"]
С	15.74 [0.62"]
Ch [Hex]	16 [5/8"]

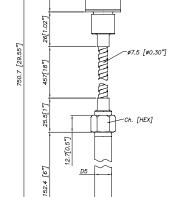
[]	1 1
D1	M18x1.5
D2	ø10 -0.05 [ø0.394" -0.002]
D3	Ø16 -0.08 [Ø0.63" -0.003]
D4	Ø16 -0.4 [Ø0.63" -0.016]
D5	ø18 [ø0.71"]
A	6 -0.26 [0.24" -0.01]
В	14.8 -0.4 [0.58" -0.016]
С	19 [0.75"]
Ch	19

[3/4"]



ME2





<u>D2</u>

0

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

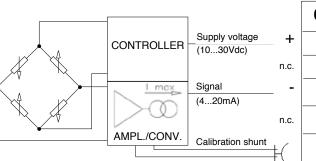
WARNING: For installation use a maximum tightening torque of 56 Nm (500 in-lb)

[Hex]

ELECTRICAL CONNECTIONS

Leading a Leading in povation

CURRENT OUTPUT (4...20mA, two wires)



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

MAGNETIC AUTOZERO

6-pin	8-pin	
Α	В	Supply voltage (1030Vdc)
С	Α	,
В	D	Signal (420mA)
D	С	(
E-F	E-F	Autozero
	G - H	

Shield drain wire is tied to connector via cable clamp

	6-pin	8-pin
Supply voltage + (1030Vdc)	Α	В
n.c.	С	Α
Signal <u>-</u> (420mA)	В	D
n.c.	D	С
Autozero	E-F	E-F
n.c.		G - H

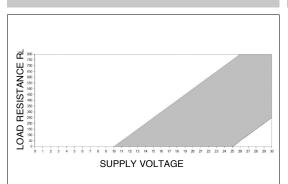
AUTOZERO



8 pin connector PC02E-12-8P Bendix



LOAD DIAGRAM

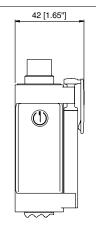


n.c.

The diagram shows the optimum ratio between the load and supply voltage of the 4...20mA transmitter.

For a correct use, choose any combination of load resistance and supply voltage, in the shaded area.

AUTOZERO FUNCTION



The Autozero function is activated through a magnetic contact (external magnet supplied with the sensor).

See the manual for a complete Autozero function explanation.

ACCESSORIES

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

Connectors					
6-pin mating connector (IP65 protection degree)	CON300	Cable color code		Cable color code	
8-pin mating connector	CON307	6 wires		8 wires	
Extension cables	0001411 0	Conn.	Wire	Conn.	Wire
6-pin connector with 8m (25ft) cable	C08WLS				
6-pin connector with 15m (50ft) cable	C15WLS	Α	Red	Α	White
6-pin connector with 25m (75ft) cable	C25WLS	В	Black	В	Dad
6-pin connector with 30m (100ft) cable	C30WLS	Ь	Diack	В	Red
8-pin connector with 8m (25ft) cable	E08WLS	С	White	С	Green
8-pin connector with 15m (50ft) cable	E15WLS				000
8-pin connector with 25m (75ft) cable	E25WLS	D	Green	D	Black
8-pin connector with 30m (100ft) cable	E30WLS	E	Blue	_	D.
Other lengths	consult factory		Diue	E	Blue
Accessories		F	Orange	F	Orange
Mounting bracket	SF18		3.		Orango
Dummy plug for 1/2-20UNF	SC12			G	n.c.
Dummy plug for M18x1.5	SC18				
Drill kit for 1/2-20UNF	KF12			H	n.c.
Drill kit for M18x1.5	KF18				
Cleaning kit for 1/2-20UNF	CT12				
Cleaning kit for M18x1.5	CT18				
Fixing pen clip	PKIT309				
Autozero pen	PKIT312				
Thermocouple for ME2 model					

TTER 601

ORDER CODE Leading automation, Leading innovation 000= Standard version Autocompensation (*) SP Special or customized versions Standard available on request (*) available for ranges > to 100bar (*) not available for version ME3 External autozero

CONFIGURATION Rigid stem Rigid stem + flexible 1 2 With thermocouple

OUTPUT SIGNAL 4...20mA

Ε

3

CONNECTOR Standard 6 pin 8 pin 8

Exposed capillary

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

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

Examples

ME2-6-M-B07C-1-4-D-000

Melt pressure transmitter with type "J" thermocouple, 4...20mA output, 6-pin connector, 1/2-20UNF thread, 700 bar full scale, 0,5% accuracy class, 153 mm (6") rigid stem, 457mm (18") flexible capillary.

MSPE0-6-M-P03M-1-4-0-000

Melt pressure transmitter autocompensated version, rigid stem, 4...20mA output, 6-pin connector, 1/2-20UNF thread, 3000 psi full scale, 0,5% accuracy class, 153 mm (6") rigid stem.

Sensors are manufactured in compliance with:

- EMC compatibility directive
- Machinery directive

Product designed and available in compliance with Directive 2011/65/EU (RoHS II) only for large-scale stationary installation or industrial tools, or for B-to-B laboratory equipments for R&D purposes.

Electrical installation requirements and Conformity certificate are available on our web site: www.gefran.com

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

GEFRAN spa

via Sebina, 74 25050 PROVAGLIO D'ISEO (BS) - ITALIA tel. 0309888.1 - fax. 0309839063 Internet: http://www.gefran.com



Magnetic autozero

24'

30'

28"

6

12'

36

42'

48'

54'

60"

12.5"

2"

3"

14'

16'

18'

FLEXIBLE LENGTH (mm / inches)

Standard (ME1, ME2)

457mm 610mm

760mm

711mm

Available on request

76mm

152mm

300mm

914mm

1067mm

1220mm

1372mm

1520mm

RIGID STEM LENGTH (mm / inches)

318mm

76mm

350mm

400mm

456mm

1/2 - 20 UNF

M18 x 1.5

Standard (ME3) none Available on request 38mm 50mm

Standard (ME0, ME1, ME2) 153mm

Standard (ME0)

0 none

Standard (ME3)

F

Α

В

C

G

Н

K

5

3

6

7

8

THREAD

Standard