**MAIN FEATURES**

- Pressure ranges: 0-35 to 0-1000bar / 0-500 to 0-15000psi
- Extensimetric measurement principle with Wheatstone bridge
- Precision: $\pm 0.25\%$ FS (H); $\pm 0.5\%$ FS (M)
- Calibration signal 80% FS internally generated
- Filling with FDA-approved oil
CFR 178.3620 and CFR 178.878
- Completely interchangeable with all existing products
- Protection level: IP65 (6-pin connector)
- Standard threading 1/2-20UNF, M18x1.5, other versions on request
- 17-7 PH stainless steel diaphragm with GTP+

WX0 The rigid rod configuration provides fast and easy installation.

WX1 The flexible rod configuration is suitable for applications demanding greater thermal isolation and where installation would otherwise be difficult.

WX2 This configuration lets you measure process pressure and temperature at the same point with a single installation.

WX3 The configuration with exposed tip is ideal for applications in limited space.

WX4 Flange configuration for specific applications

The WX 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 315°C.

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

The fluid-filled system assures the temperature stability.

The physical measure is transformed in a electrical measure by means the strain-gauge technology.

TECHNICAL SPECIFICATIONS

Rated precision, including effects of Linearity, Repeatability and Hysteresis	H $\pm 0.25\%$ FS (100...1000 bar) M $\pm 0.5\%$ FS (35...1000 bar)
Resolution	Infinite
Pressure ranges	0..35 to 0..1000bar 0..500 to 0..15000psi
Maximum applicable pressure	2 x FS 1,5 x FS above 500bar/7500psi
Principle of measurement	Strain gauge
Power supply	12...30Vdc
Maximum input	30mA
Isolation resistance (at 50 Vdc)	>1000 MΩ
Signal at rated pressure (FS)	20mA
Zero balancing	4mA
Calibration:	Rated pressure Room pressure
	5% FS min. 10bar (150psi)
Maximum load	see diagram (page 3)
Response time (10 at 90% FS)	~ 4ms
Output noise (RMS 10-400Hz)	< 0,05% FS
Calibration signal	80% FS
Protection against overvoltages and power supply polarity reverse	YES
Protection against pulses injected on output	YES in compliance with 89/336/EEC
Temperature range of Strain Gauge Housing	-20...+70°C -4...+158°F
Thermal drift in compensated range: Zero/Calibrat/Sensitivity	< 0,02% FS/°C < 0,01% FS/°F
Maximum temperature of diaphragm	315°C 600°F
Influence due to fluid temperature change (zero)	0,04 bar/°C 30 psi/100°F
Standard Material in contact with process medium	Diaphragm: • 17-7PH corrugated diaphragm with GTP+ • Stem • 17-4 PH
Thermocouple (model WX2)	STD: type "J" (isolated junction)
Protection level (with 6-pin female connector installed)	IP65
Electrical connections	6-pin conn. VPT07RA10-6PT (PT02A-10-6P) 8-pin conn. PC02E-12-8P

FS = Full Scale Output (Signal at rated pressure)



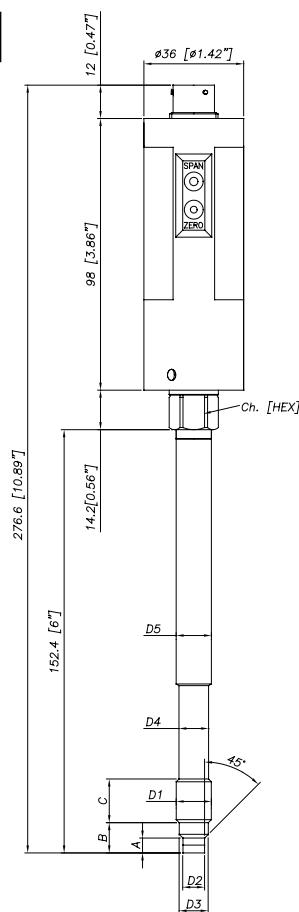
EC-Type Examination Certificate number:
CESI 02 ATEX 107

(*) includes inductance levels and capacity of a cable: (typical L 1 microH/m and typical C 100pF/m) with maximum length 15m.

Power at zener barrier or active barrier. For version WX2, the thermocouple must be connected to EX-i circuits with devices assigned to galvanic separation and with protection mode [EX ia] IIC.

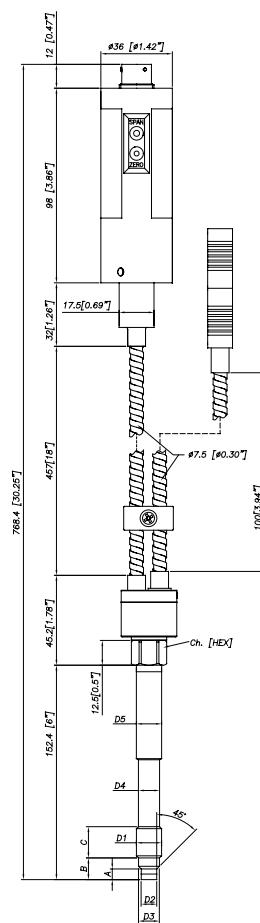
MECHANICAL DIMENSIONS

WX0

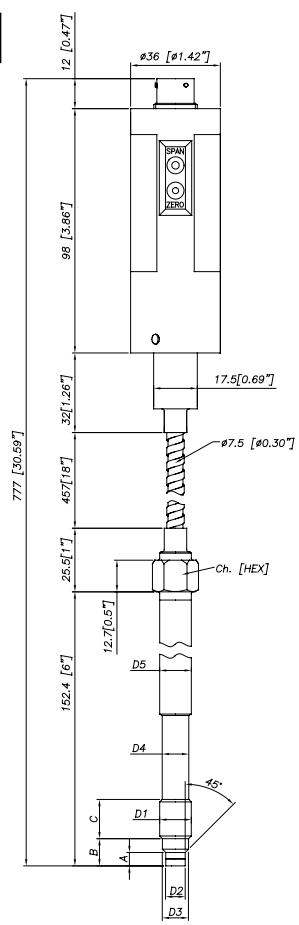


WX2

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

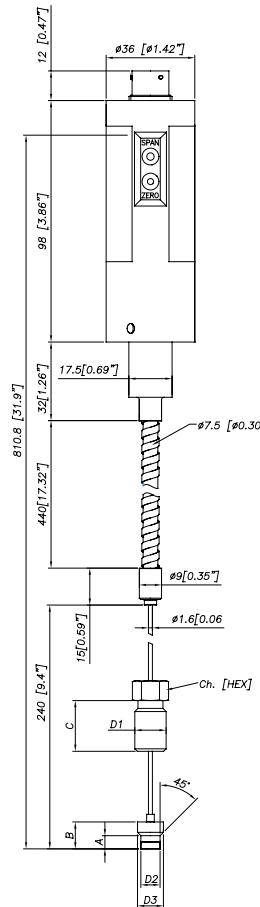


WX1



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

WX3



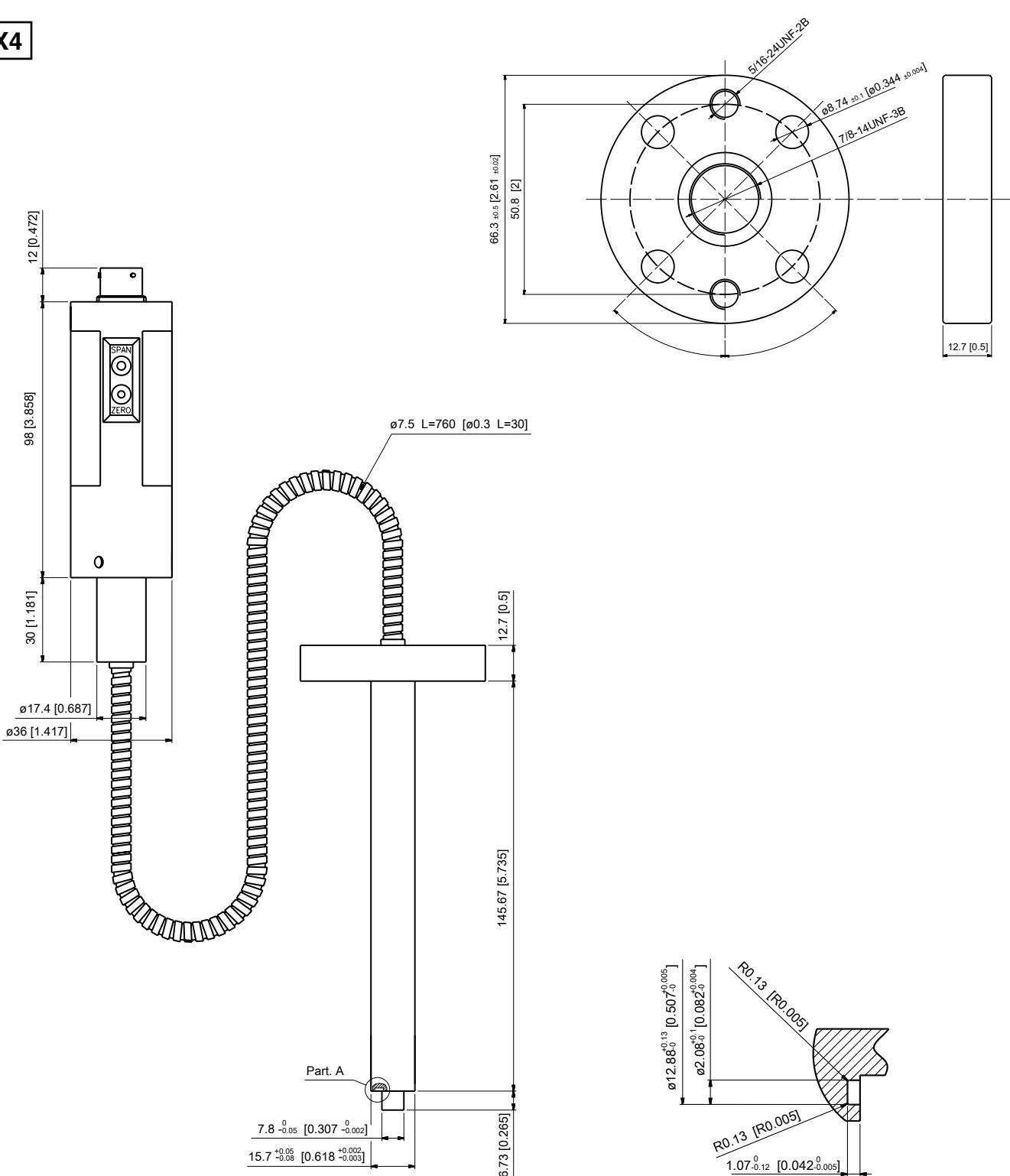
Exposed capillary	
D1	1/2-20UNF
D2	.307/.305" [7.80/7.75mm]
D3	.414/.412" [10.52/10.46mm]
A	.145/.151" [3.68/3.84mm]
B	.318/.312" [8.08/7.92mm]
C	.81" [20.6mm]

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)

MECHANICAL DIMENSIONS

WX4

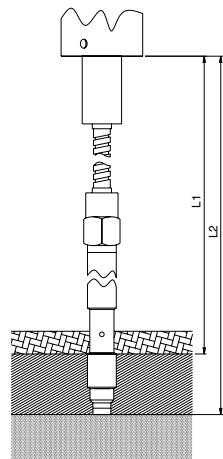


ELECTRICAL CHARACTERISTICS AND TEMPERATURE CLASSES

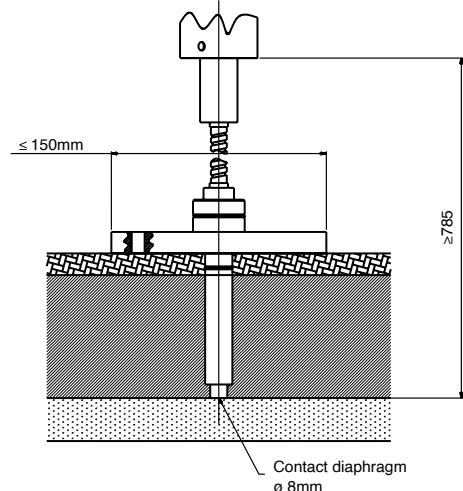
MODEL	(*) LEVEL L2	(*) LEVEL L1	TEMPERATURE CLASSES	ROOM TEMPERATURE
WX0	>165mm	>125mm	T4	-20...+60°C
WX1	>665mm	>625mm	T5	-20...+55°C
			T4	-20...+70°C
WX2	>665mm	>625mm	T5	-20...+55°C
			T4	-20...+70°C
WX3	>665mm	>625mm	T5	-20...+55°C
			T4	-20...+70°C
WX4	>785 mm	-	T5 T4	-20...+55°C -20...+70°C

(*) with the level (L) in fig. 1, the table sets the minimum distance that the electrical circuit has to maintain from the block at high temperature.

WX0 - WX1 - WX2 - WX3



WX4



thermal isolating material with adequate thickness for the process temperature

pressure transmitter housing block

fluid at temperature Max. (400°C)

thermal isolating material with adequate thickness for the process temperature

installation Vs process

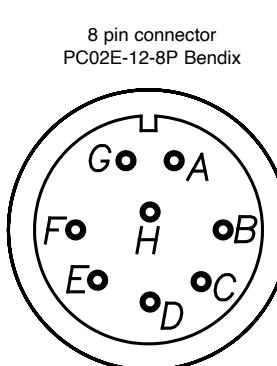
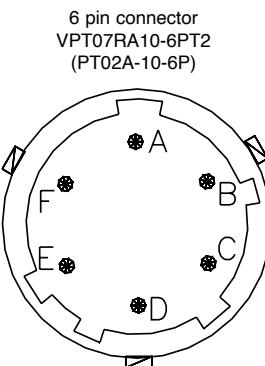
fluid at temperature Max. (400°C)

ELECTRICAL CONNECTIONS

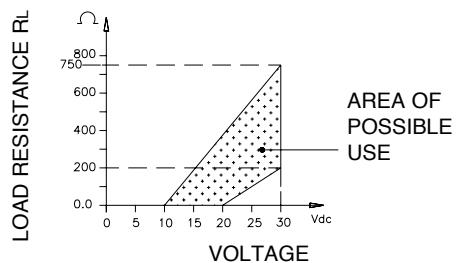
Output in current (4...20mA 2 wires)

	6-pin	8-pin
Power supply (12...30Vdc)	A	B
	C	A
Signal (4...20mA)	B	D
	D	C
Calibration shunt	E - F	E - F
	G - H	

The cable sheathing is connected to the transducer body

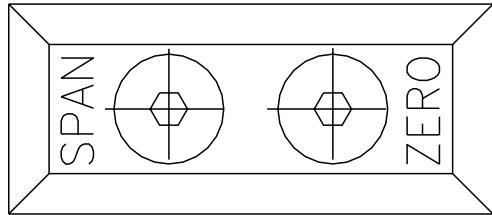


LOAD DIAGRAM (current output)



The diagram shows the best ratio of load to power supply for transmitters with 4...20mA output. For correct function, use a combination of load resistance and voltage that stays in the shaded zone.

SETTINGS



The signal setting to room pressure (ZERO) and the setting to rated pressure (SPAN) can be made with the appropriate trimmers, accessed inside the transmitter after removing the two fastening screws.

The SPAN setting is made during production and must not be changed.

Accessories

- Fastening bracket
- Silver-plated copper washer
- Protection plug for 1/2-20 UNF
- Protection plug for M18x1.5
- Drill kit for 1/2 -20 UNF
- Drill kit for M18 x 1.5
- Cleaning kit for 1/2-20 UNF
- Cleaning kit for M18x1.5

Extension cables

SF18	6-pin connector with 3mt Atex cable	PCAV221
RON007	6-pin connector with 4mt Atex cable	PCAV104
SC12	6-pin connector with 5mt Atex cable	PCAV105
SC18	6-pin connector with 10mt Atex cable	PCAV106
KF12		
KF18		
CT12	Thermocouples for model WX2	
CT18	Type "J" (for rigid rod 153mm - 6")	TTER 718

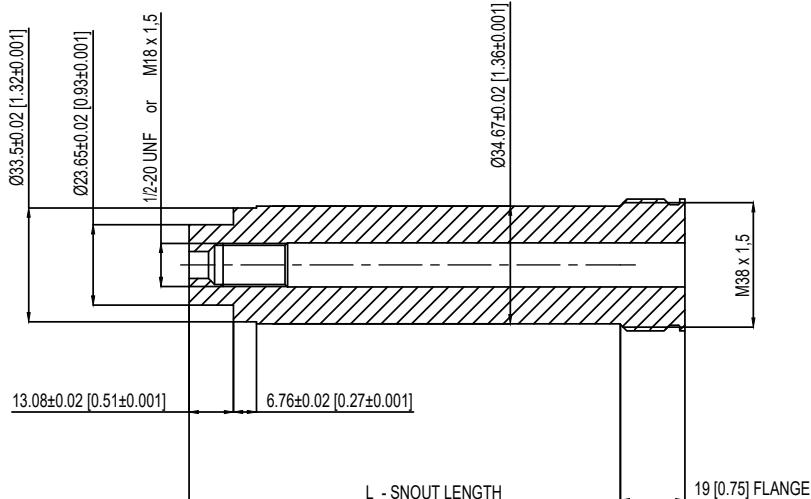
PROCESS FLANGE ADAPTER

The process flange adapter is a sensor accessory that allows for the installation of 1/2-20 UNF or M18x1.5 melt pressure sensor in a button seal style process mounting port. The adapter is made with an adapter body with different snout lengths plus an adapter flange available in different sizes (see tables and drawing below). Each combination of snout and flange is available according to the ordering information with a specific ordering code.

SPECIFICATIONS

- Pressure range: according to the selected sensor (up to 1000 bar/15000 psi max)
- Temperature range: according to the selected sensor
- Material of construction: 17-4PH Stainless steel

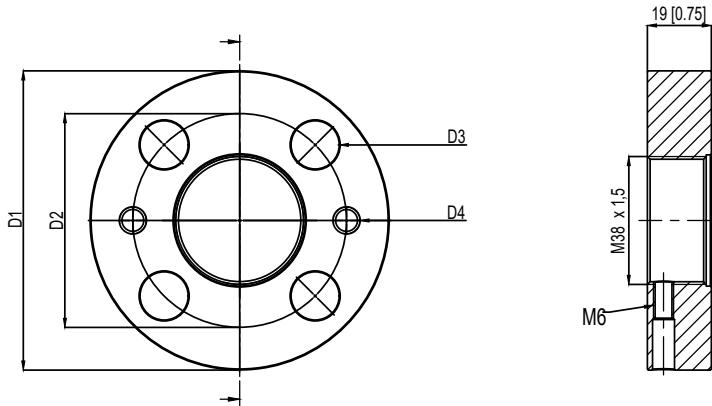
ADAPTER BODY



1/2-20 UNF	L - SNOUT LENGTH
STE1020	127 [5]
STE1021	51,6 [2,031]

M18 X 1,5	L - SNOUT LENGTH
STE1022	127 [5]
STE1023	51,6 [2,031]

ADAPTER FLANGE



	FLA960	FLA961
D1	82,6 [3,25]	88,9 [3,50]
D2	54 [2,14]	63,5 [2,50]
D3	13,2 [0,52]	14,3 [0,56]
D4	5/16-18 UNC	5/16-18 UNC

ORDER CODE

KIT	5	0	1
Snout length			
5 inch [127 mm]	5		
2,031 inch [51,6 mm]		2	
Flange type (see technical drawing)			
FLA960	0		
FLA961		1	
Thread dimensions			
1/2-20 UNF	1		
M18 x 1,5		4	

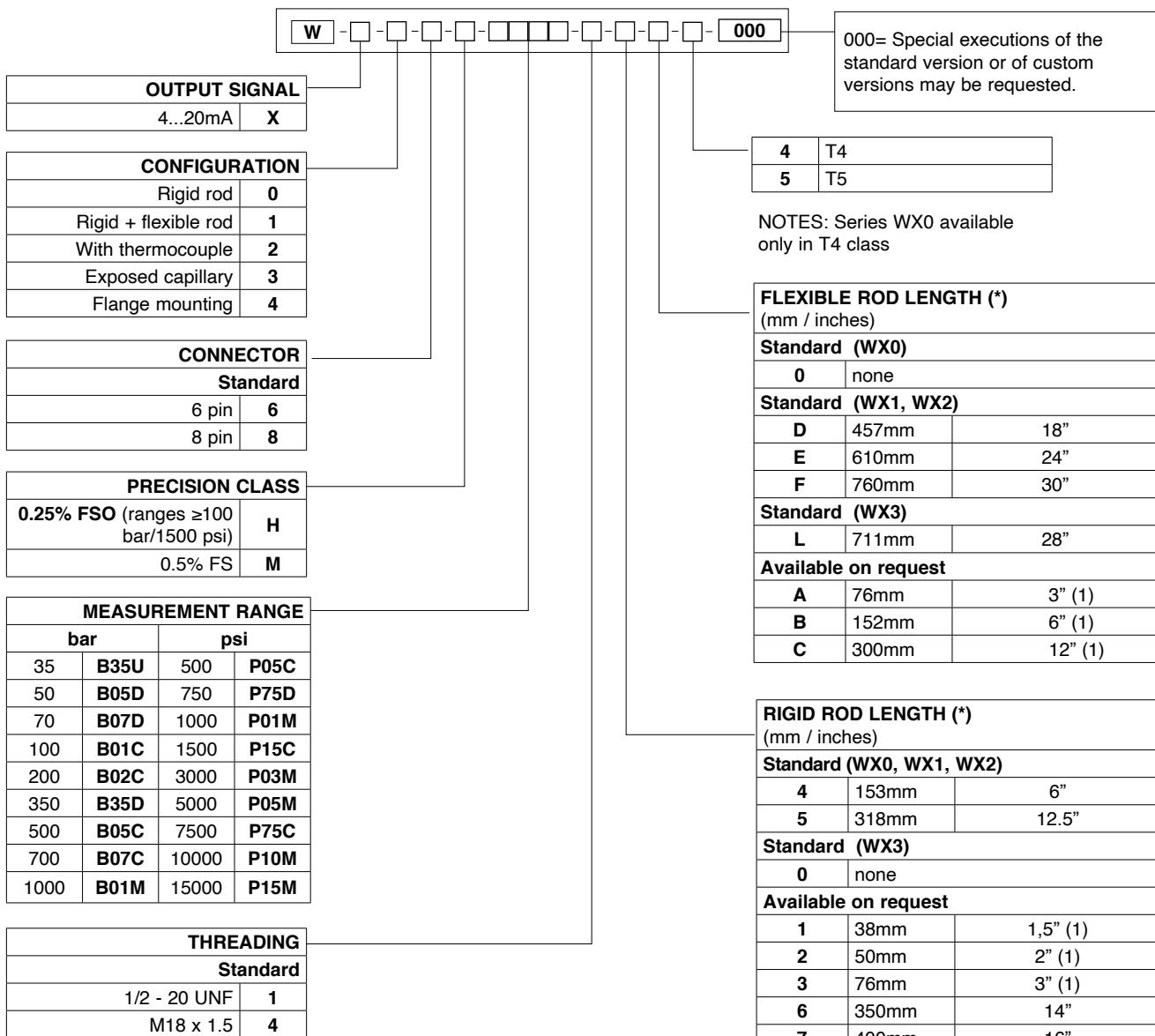
ADAPTER GASKESTS			
Material	Dimensions	Max Pressure	Ord. Code
Aluminium	30.2 mm [1.19"] OD 24.1 mm [.950"] ID	200 bar/3000 psi	RON360
AISI 303 SS	30.2 mm [1.19"] OD 24.1 mm [.950"] ID	700 bar/10000 psi	RON361

Example:

KIT501

Process adapter with 5" snout length, 82.6 mm size flange, suitable for 1/2-20 UNF melt sensor

ORDER CODE



Notes:

the models WX0/WX1/WX3 are available in a special version XM3GD realized to work in the presence of gases (zone 2) and powders (zone 22).

Marking   II 3G Ex ec IIC T4, T5, Gc
II 3D Ex tc IIIG T135°C T100°C Dc IP65

Examples:

Example: **WX1-6-M-B05C-1-4-D-5-(XM3GD)**

Examples

Example
WX1-6-M-B07C-1-4-D-4-000

McGraw-Hill
threading

threading, pressure range 70-1000 psi (18") flexible rod, temperature

Sensors are manufactured in compliance with:

- EMC compatibility directive
- RoHS directive

- RoHS directive
- ATEX

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

(*) note: max. total length of rigid/flexible rod is 914mm - 36"

(1) use rod WX1 and WX2 in combination with sheathings or rigid rods so that total length L is \geq 630mm

GEFRAN spa reserves the right to make aesthetic or functional changes at any time and without notice.

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