



Main features

- Pressure range:
0...1500 to 0...5000 bar / 0...20000 to 0...70000 psi
- Precision class: 0,3% FSO
- Entirely in stainless steel
- Internally generated calibration signal
- "Autoclave" pressure fitting
- Protection level: IP65
- Available in intrinsic safety version EEx ia IIC T6

Series TPH transducers are designed for applications in high-pressure hydraulic circuits.

It uses the extensimetric measurement principle with photo-engraved metal leaf.

The 4 active elements configuration allows a signal of

2mV/V, maintaining conditions of stress with high coefficient of safety on the measurement diaphragm.

Careful selection and ultrasonic checking of materials used in machining guarantee the absence of inclusions and defects on the primary reaction mechanics, assuring a highly reliable product.

The autoclave process connection in the English version makes series TPH transducers suitable for applications in the most common high-pressure installations.

TECHNICAL DATA

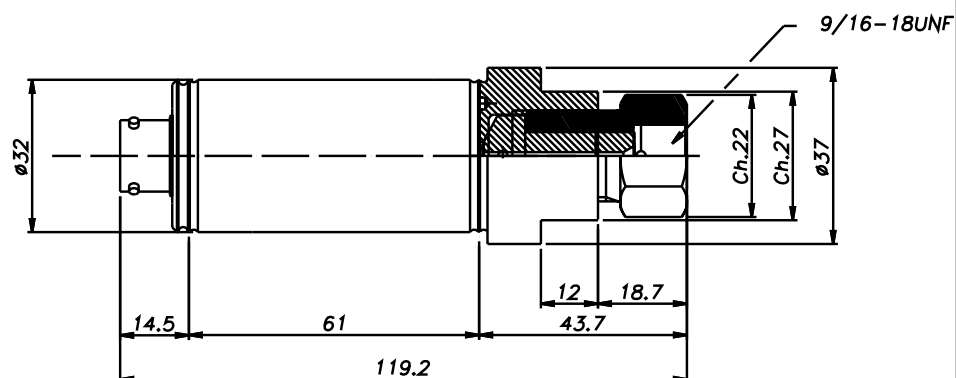
Precision class (1)	< 0,3% FSO
Resolution	infinite
Pressure range	from 0...1500 to 0...5000 bar from 0...20000 to 0...70000 psi
Max. applicable pressure (20 sec. without degradation of the specific)	2 times Full Scale (max. 6000bar / 86000psi)
Resistance to bursting	3 times Full Scale (max. 6000bar / 86000psi)
Measurement principle	Metal strain gauge glued (4 active elements)
Resistance of measurement bridge	350 (± 2%) Ohm
Power supply	10 (max 15) Vdc/ac RMS
Resistance of isolation	>1000 MΩ a 50Vdc
Nominal pressure signal	2 (± 1%) mV/V
Ambient pressure signal	±1% FSO
Calibration signal	80% ± 1%
Compensated temperature range	0...+80°C / 32...+176°F
Permitted temperature range	-30...+120°C -22...+248°F
Option cable F:	-20...+100°C -4...+212°F
Thermal drift in compensated range (zero - cal. - sens.)	< ±0,02% FSO/°C < ±0,01% FSO/°F
Materials in contact with measurement fluid	15- 5 PH stainless steel
Case material	AISI 304 stainless steel
Protection level	IP65
Process connections	
Electrical connections	Standard: F-250-C (9/16-UNF female); on request: M16x1.5 female 6-pole connector; other connectors on request

FSO = Full Scale Output

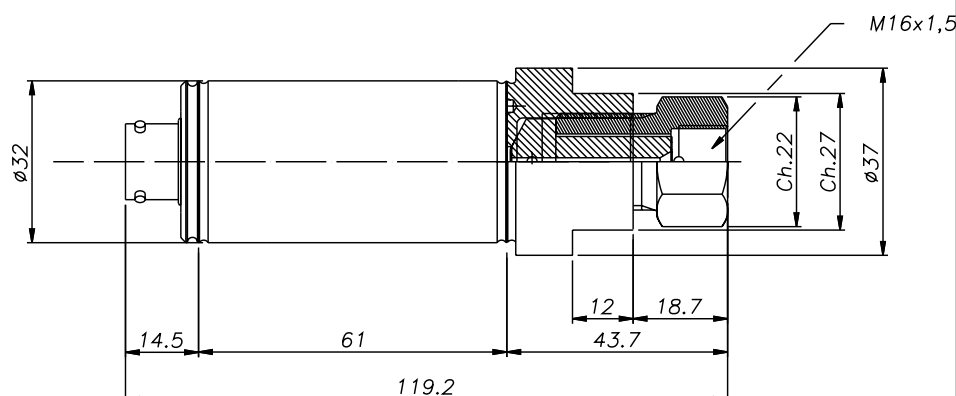
1 BFSL (Best Fit Straight Line) method.

MECHANICAL DIMENSIONS - Process connections

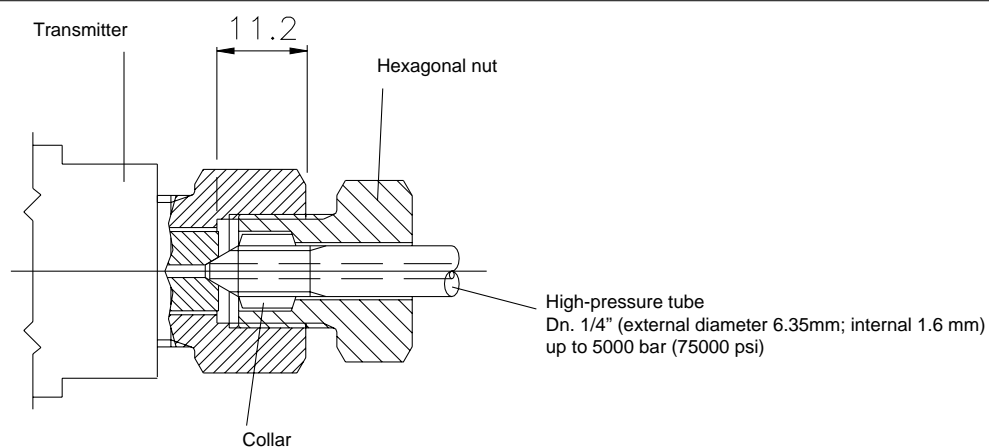
Connection
F-250-C
(9/16-18UNF female)
(code **D**)



Connection
M16 x 1.5 female
(code **E**)

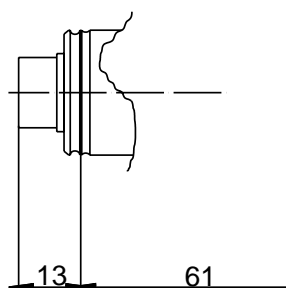


MECHANICAL DIMENSIONS - Notes on use

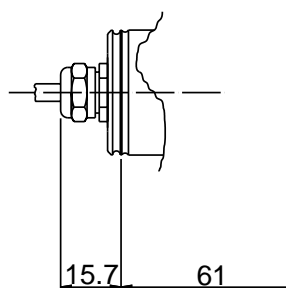


MECHANICAL DIMENSIONS - Connectors

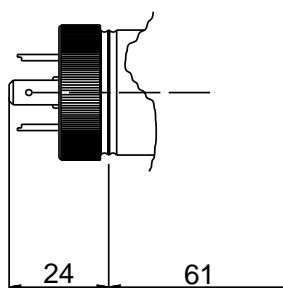
P - 7-pole connector



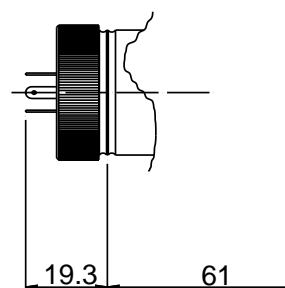
F - 4-6 pole cable



E - 4-pole connector solenoid

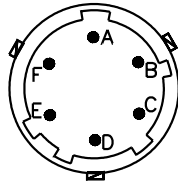


M - 4-pole connector microsolenoid



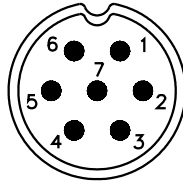
ELECTRICAL CONNECTIONS - Connectors

V - 6-pole connector



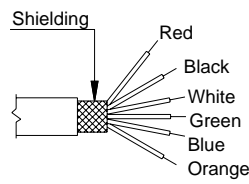
Male conn.
VPT02A10-6PT2

P - 7-pole connector



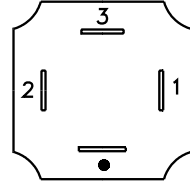
Male conn.
09-0127-09-07

F - 6-pole cable



F - Shielded cable 6 x 0,25 - 1m.

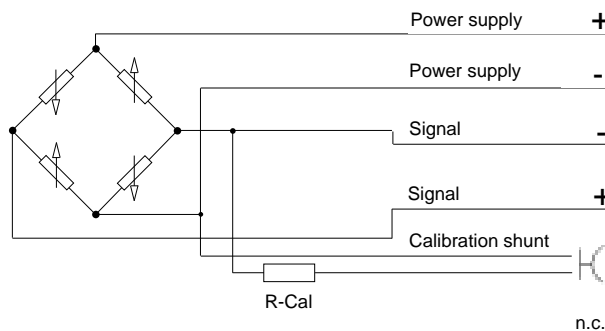
E - 4-pole connector solenoid
M - 4-pole connector microsolenoid



E - Solenoid 400DIN
46350A-ISO 4400
M - Microsolenoid 400 DIN
46350B-ISO 4400

ELECTRICAL CONNECTIONS - connection diagrams

mV/V output



Code V	Code P	Code F	Code E/M
C	1	White	3
D	2	Green	
B	4	Black	2
A	3	Red	1
E - F	5 - 6	Blue/orange	<i>Not available</i>
	7		

The cable sheathing is connected to the transducer body

ACCESSORIES ON REQUEST

Connectors

Connection V

Female cable connector Prot. IP66

CON 300

Connection P

Female cable connector Prot. IP40

CON 320

Female cable connector 90° Prot. IP40

CON 322

Female cable connector Prot. IP67

CON 321

Connection E

Connector 3 poles + ground DIN43650A ISO4400 Prot. IP65

CON 006

Connection M

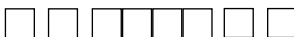
Connector 3 poles + ground DIN43650B ISO4400 Prot. IP65

CON 008

ORDER CODE

Pressure transducer

TPH



PROCESS CONNECTIONS

Standard

F-250-C (9/16-UNF female)

D

On request

9/16-18 UNF

E

ELECTRICAL CONNECTIONS

Standard

6-pole connector

V

On request

7-pole connector

P

6-pole shielded cable

F

4-pole connector solenoid

E

4-pole connector microsolenoid

M

Mechanical and/or electrical characteristics differing from standard may be arranged on request

EXPLOSION-PROOF VERSION

EX

Certification EEx ia IIC T6

PRESSURE RANGE

	bar		psi
B15C	0..1500	P20M	0..20000
B02M	0..2000	P30M	0..30000
B35C	0..3500	P50M	0..50000
B05M	0..5000	P70M	0..70000

Ex.: **TPH - D - V - B02M**

Transducer with autoclave pressure fitting 9/16-18UNF female with 6-pole connector, pressure range 0-2000 bar.

Ex.: **TPH - D - V - B35C - EX**

Transducer with autoclave pressure fitting 9/16-18UNF female with 6-pole connector, pressure range 0-3500 bar, explosion-proof version

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



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