

**MD0**



Rigid rod configuration allows quick and easy installation.

**MD1**



Flexible rod configuration is suitable for applications requiring additional thermal insulation or where installation would otherwise be difficult.

**MD2**



This configuration lets you measure process pressure and temperature at the same point.

**MD3 (\*)**



Configuration with exposed capillary is ideal for applications where space is limited.

### Main characteristics

- Digital output signal with DP404 CAN OPEN communication protocol
- Transmission frequency (Baud rate): 10 Kbaud to 1 Mbaud (default 500 Kbaud)
- Software / Hardware selection of Baud rate and ID nodes
- Operation with 1 or 2 settable alarm limits
- "Autozero" for temperature compensation
- Zero and span drift compensation
- 80% FSO calibration signal
- Pressure ranges: 0-35 to 0-2000 bar / 0-500 to 0-30000 psi
- Extensimetric measurement principle with Wheatstone jumper
- Precision:  $< \pm 0.25\%$  FSO (H);  $< \pm 0.5\%$  FSO (M)
- Hydraulic transmission system to guarantee temperature stability.
- Protection level: IP65
- Standard threading: 1/2-20 UNF, M18x1.5; other versions on request
- Stainless steel 15-5 PH diaphragm with Armoloy coating
- For ranges below 100 bar – 1500 psi: stainless steel 17-7PH corrugated diaphragm with TiN (titanium nitride) coating
- Other types of diaphragm on request

### TECHNICAL SPECIFICATIONS

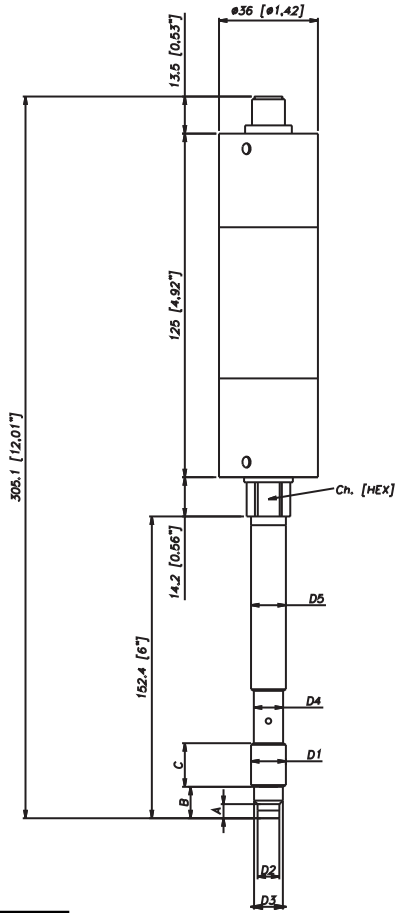
Rated precision, including effects of linearity, repeatability and hysteresis	H $< \pm 0.25\%$ FSO (100...2000 bar) M $< \pm 0.5\%$ FSO (35...2000 bar)
Sampling	16 bit (1)
Pressure ranges	0-500 to 0-30.000 psi 0-35 to 0-2000 bari
Maximum applicable pressure	2 x FSO
Measurement principle	Strain gauge
Power supply	12...40 Vdc
Typical input	40 mA (2)
Insulation resistance (at 50Vdc)	$> 1000$ MOhm
Signal at rated pressure (FSO)	Depends on FSO
Signal at ambient pressure	0
Calibration of ambient pressure	Insertion of an offset
Signal protocol	DP404 CAN OPEN, with baud rate selectable from 10K to 1M baud (default 500 Kbaud)
Response time (10 at 90% FSO)	20 ms
Calibration signal	80%FSO
Protection against overvoltage and reverse polarity of power supply	YES
Compensated temperature range of strain gauge housing	0...+76°C 32...170°F
Maximum temperature range of strain Gauge Housing	-30...+85°C -22...185°F
Thermal drift in compensated range; Zero Calibration Sensitivity	$< 0.02\%$ FSO/°C $< 0.01\%$ FSO/°F $< 0.01\%$ FSO/°F
Max. diaphragm temperature	400°C (750°F)
Influence due to variation of fluid temperature (zero)	15 Psi/100°F 0.02bar/°C
Standard contact diaphragm with process	0.02 bar/°C 15 psi/100°F  15-5 PH with Armoloy coating 17-7 PH corrugated with titanium nitride coating for range $< 100$ bar (1500 psi)
Thermocouple (model MD2)	STD: Type * J (isolated coupling)
Protection level	IP65
Electrical connections	M12 DIN EN 50044 5-pin connector

(1) resolution: 0.01bar from 35...500bar; 0.1bar from 700...2000bar;  
0.1psi from 5000 ...350psi; 1psi from 7500...30000psi  
(2) Conditions. Power supply 24 Vdc

FSO= Full Scale Output (Signal at rated pressure)

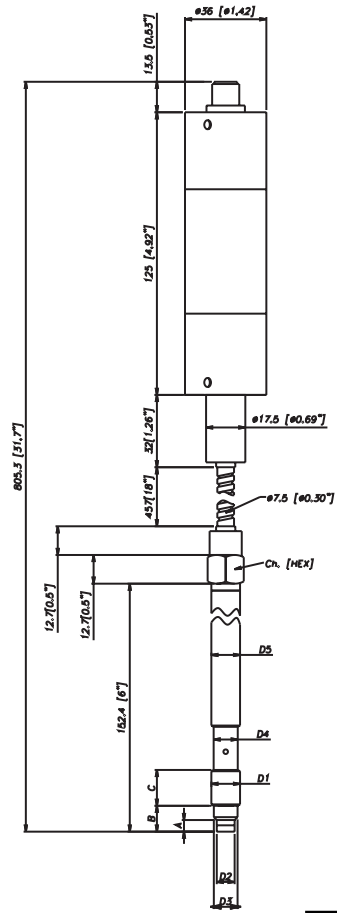
(\*) Contact the Gefran Sales Department for availability of this model.

# MECHANICAL DIMENSIONS



**MD0**

D1	<b>1/2 - 20UNF</b>
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 [Hex]	16 [ $5/8$ " ]

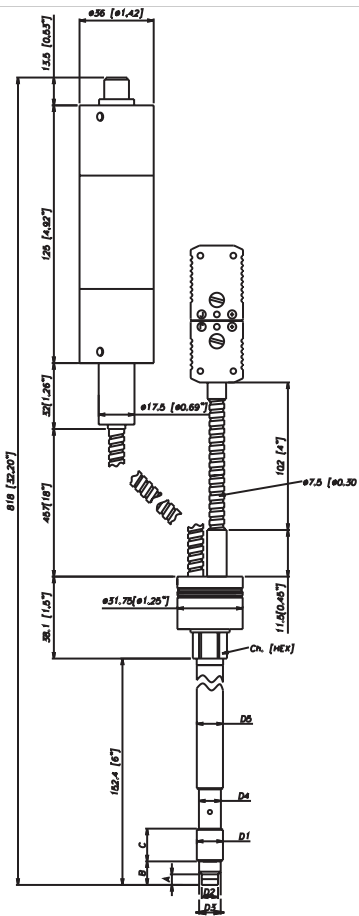


**MD1**

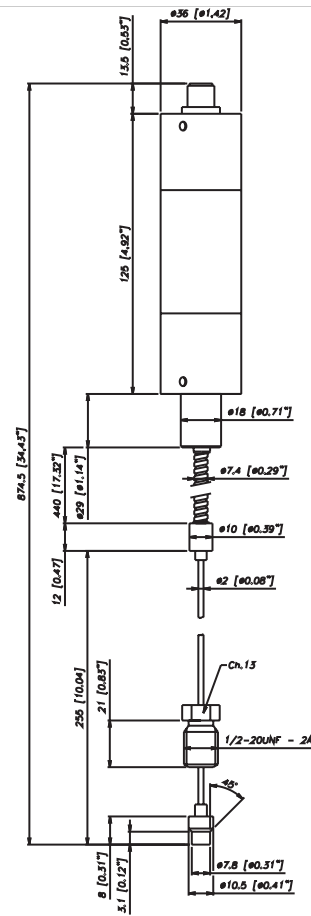
D1	<b>M18x1,5</b>
D2	$\phi 10 - 0.05$ [ $\phi 0.394$ " - 0.002 ]
D3	$\phi 16 - 0.08$ [ $\phi 0.63$ " - 0.003 ]
D4	$\phi 16 - 0.4$ [ $\phi 0.63$ " - 0.016 ]
D5	$\phi 18$ [ $\phi 0.71$ " ]
A	$6 - 0.26$ [ $0.24$ " - 0.01 ]
B	$14.8 - 0.4$ [ $0.58$ " - 0.016 ]
C	19 [ $0.75$ " ]
Ch [Hex]	19 [ $3/4$ " ]

**NOTE:**  
Dimensions refer to rigid rod option "4"  
(153 mm – 6")

**ATTENTION:**  
use a maximum  
tightening torque of 56  
Nm (500 in-lb)  
for installation



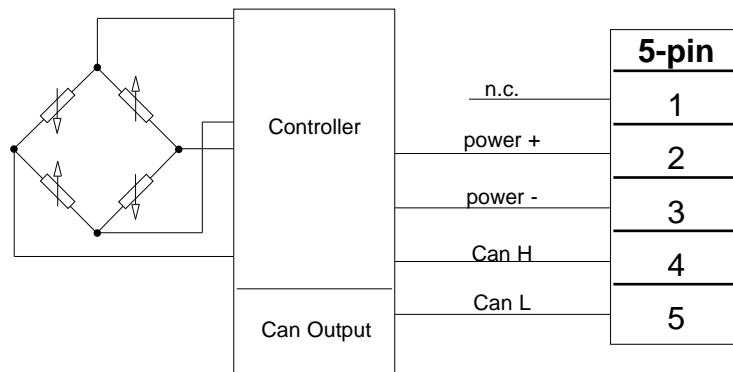
**MD2**



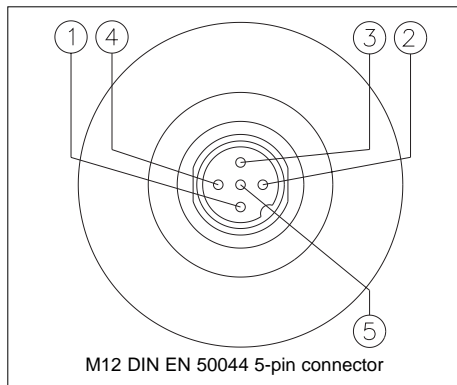
**MD3**

## ELECTRICAL CONNECTIONS

### CAN BUS DP404 DIGITAL OUTPUT



Shielding is connected to transducer body. It is advisable to ground it on the instrument side as well



## ACCESSORIES

### Connectors

5 pin female connector (IP65 protection)

**CON031**

### Extension cords

5-pin connector with cord length 1 meter (3.3 ft)  
 5-pin connector with cord length 2 meters (7 ft)  
 5-pin connector with cord length 5 meters (17 ft)

**PCAV310**  
**PCAV311**  
**PCAV314**

Other lengths

**on request**

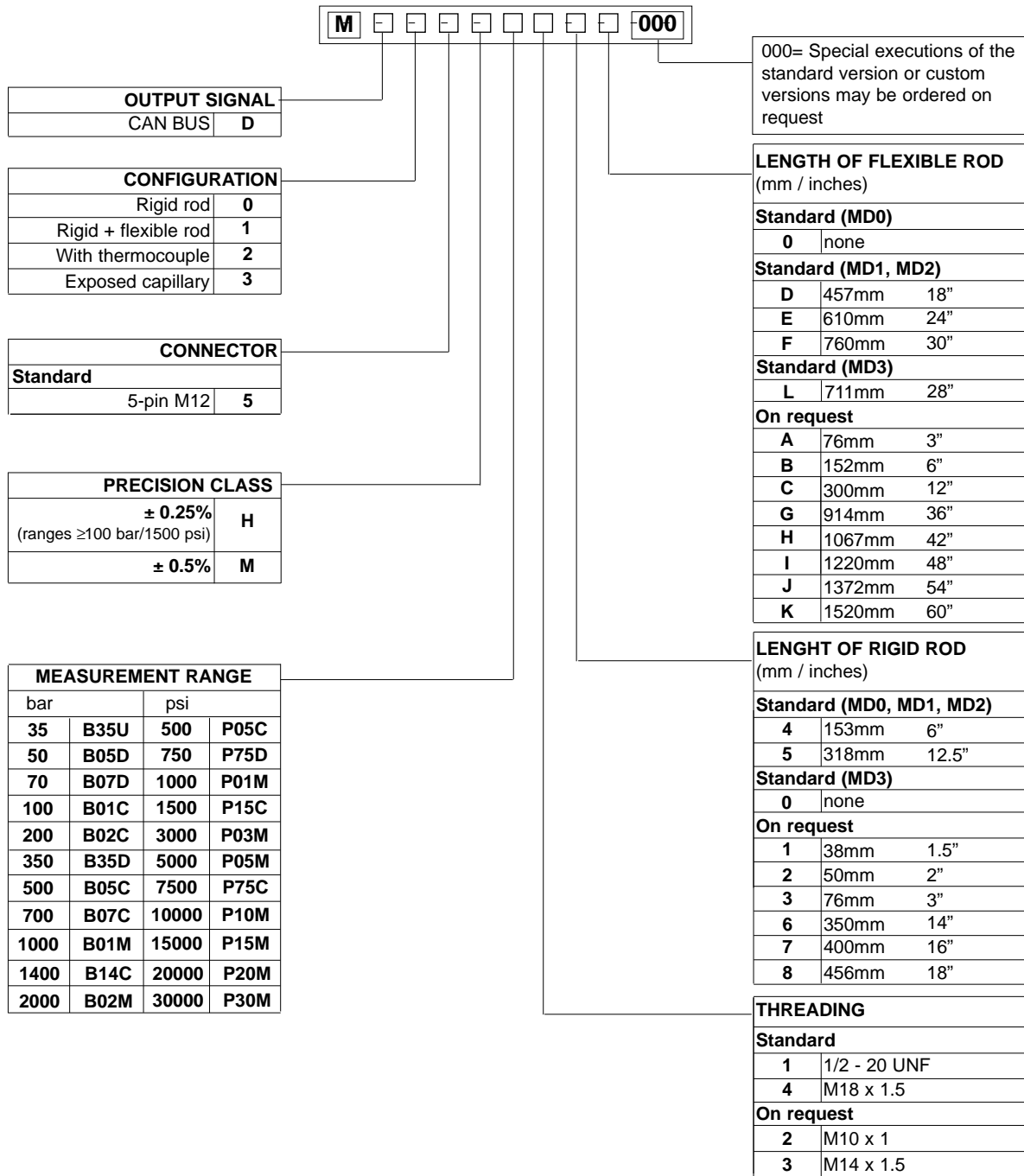
### Accessories

Fastening bracket  
 Protective plug for 1/2 - 20 UNF  
 Protective plug for M18x1.5  
 Punch kit for 1/2-20 UNF  
 Punch kit for M18x1.5  
 Cleaning kit for 1/2-20 UNF  
 Cleaning kit for M18x1.5

**SF18**  
**SC12**  
**SC18**  
**KF12**  
**KF18**  
**CT12**  
**CT18**

Cord color code	
Conn.	Wire
1	n.c.
2	Red
3	Black
4	White
5	Blue

# ORDER CODE



**Example:**

**MD0-5-M-B07C-1-4-0-000**

Melt pressure transducer with Can output, 5-pin connector, 1/2 - 20 UNF threading, pressure range 700 bar, precision class 0.5%, 153 mm (6") rigid rod.

**MD1-5-M-P03M-1-4-D-000**

Melt pressure transducer with Can output, 5-pin connector, 1/2 - 20 UNF threading, pressure range 3000 bar, precision class 0.5%, 153 mm (6") rigid rod, 457 mm (18") flexible rod.