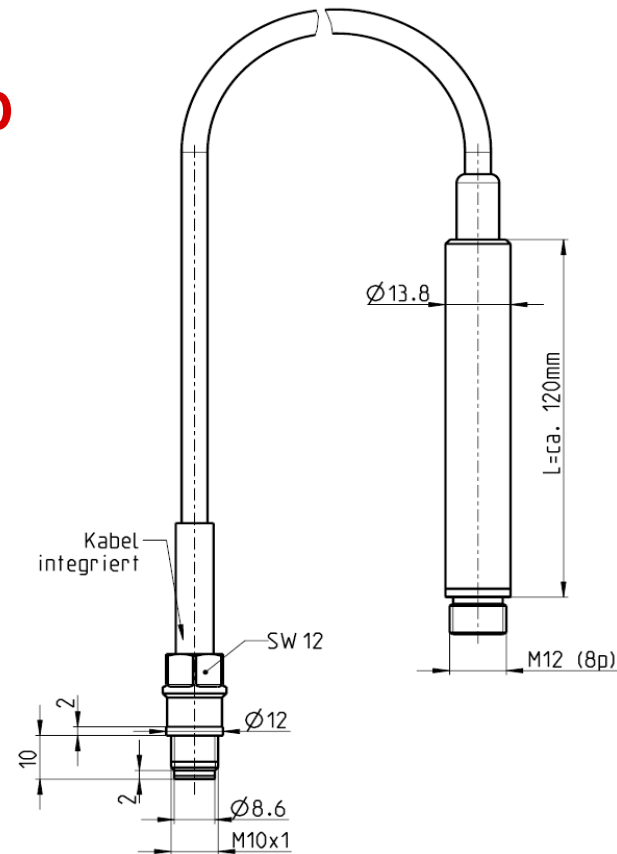


Cylinder Pressure Sensor GO31D

Sensor with optimized service life for continuous cylinder pressure monitoring in Diesel and gas engines. Due to its outstanding precision and the long term stability of its quality, this sensor is suitable for demanding monitoring and control tasks.

The sensor contains numerous innovative details like the Double-Shell® housing, the inboard preload element as well as the Piezocryst Leak Proof Design™. These patented innovations make this sensor not only to the most precise but also the safest sensor available.

Despite its robust design, optimized for service times as long as 20000 h, deposits may influence the sensor's quality as well as corrosive exhaust gas may reduce the service life.



CUSTOMER BENEFITS

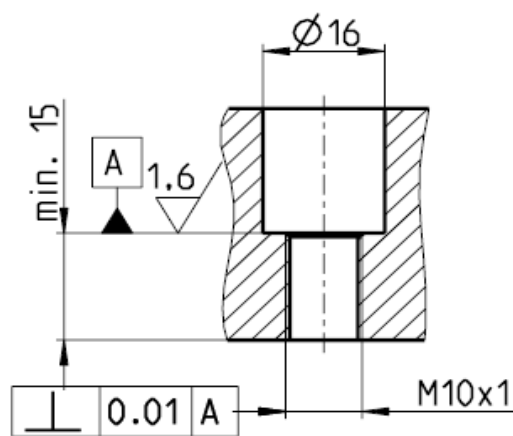
- highest precision
- high service life and long term stable quality
- compact design for shoulder sealed installation
- integrated charge amplifier with current or voltage output
- high quality charge amplifier with state of the art drift compensation circuit

| SPECIFICATION | GO31D | GO31Di | GO31DA |
|-------------------------------|-----------|--|--|
| Measuring range | | 250 bar | |
| Overload range | | 300 bar | |
| Sensitivity / Output | 20 pC/bar | 20 pC/bar | 13/25/50 mV/mV/µA /bar |
| Linearity | | 0.5 % FSO | |
| Thermal sensitivity shift | | < 1 % (150 ... 350 °C) | |
| Cyclic srift | | 0.8 bar (7 bar IMEP, 1300 rpm, Diesel) | |
| Temperature range | | -50 ... 350 °C | |
| Temperature range electronics | | | -50 ... 120 °C |
| Supply voltage | | | Current output 80 °C 10 ... 32 V DC |
| Acceleration sensitivity | | 0.001 bar/g | |
| Shock resistance | | 2000 g (sensor) | |
| Mounting torque | | 15 Nm | |
| Weight | | approx. 150 g | |
| Connector | M4 | Fischer SE103 | M12 |

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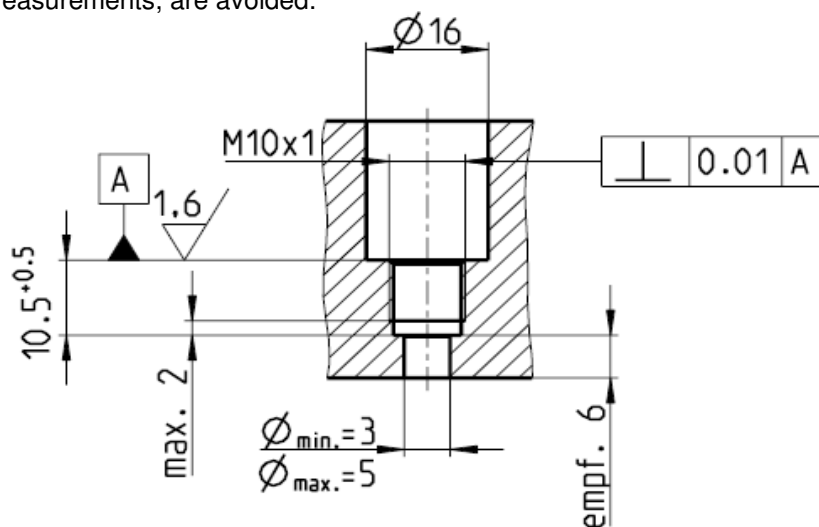
MOUNTING

The sensor is designed for shoulder sealed installation (fig. 1). If the sensor is installed in recessed position (fig. 2) the length of the indicating channel has to be chosen that short, that pipe oscillations, which can reduce the service life of the sensor and the expressiveness of measurements, are avoided.



shoulder sealed

figure 1

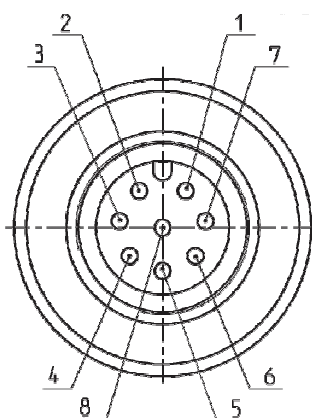


shoulder sealed
(recessed installation)

figure 2

PIN ALLOCATION FOR SENSORS WITH INTEGRATED CHARGE AMPLIFIER

Please refer to the table below for the pin allocation for the M4C – current output - and M4V – voltage output - amplifier.



| Pin | M4C | M4V |
|-----|--------------------|---------------------|
| 1 | GND | GND |
| 2 | - | - |
| 3 | Output 4 .. 18 mA | - |
| 4 | (Com. Input)* | (Com. Input)* |
| 5 | - | Output 0.5 .. 4.5 V |
| 6 | (Com. Output)* | (Com. Output)* |
| 7 | (Drift Comp. Off)* | (Drift Comp. Off)* |
| 8 | Supply 12 ..32 V | Supply 8 ..32 V |

* Used at Piezocryst only

ACCESSORIES

| | |
|---------------------|------|
| Spare sealing rings | SG04 |
| Mounting tool | TT07 |
| Mounting Spray | SF01 |