

FEATURES

- Oxygen pressure range 2 mbar...3 bar
- Zirconium dioxide (ZrO₂) sensing elements
- Non-consumptive technology
- Integral heating element
- No need for temperature stabilisation
- No reference gas required
- Function testing and calibration in ambient air
- High accuracy
- Linear output signal
- Operates with external interface boards



SPECIFICATIONS

Maximum ratings

Heater supply voltage 4.35 ±0.1 V_{DC} (1.85 A)
 Stand by 2.0 V_{DC}

Pump resistance @ 700 °C
 DC typ. 1 kΩ
 AC typ. 1 kHz, 120 Ω

Permissible gas temperature
 XYA1 -100...400 °C
 all others -100...250 °C

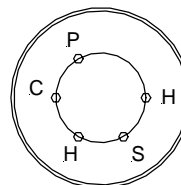
Gas flow rate 0...20 m/s

Repetitive permissible acceleration 5 g

Incidental permissible acceleration 30 g

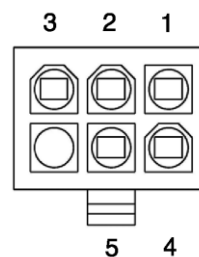
ELECTRICAL CONNECTION

Stainless steel wires (XYA1S)



P: Pump
 C: Common
 S: Sense
 H: Heater

Molex connector (XYA...M)



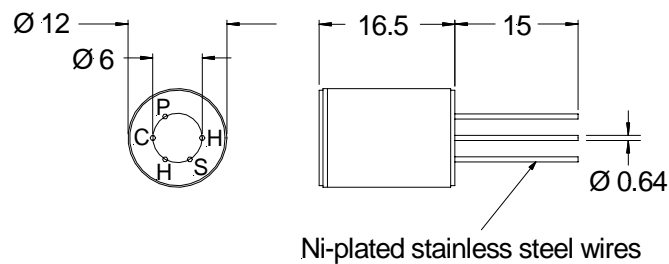
1: Pump (Red)
 2: Common (Black)
 3: Heater (Yellow)
 4: Sense (Blue)
 5: Heater (Yellow)

PERFORMANCE CHARACTERISTICS

| Characteristics | Min. | Typ. | Max. | Unit |
|------------------------------|------|------|------|------|
| Oxygen pressure range | 2 | | 3000 | mbar |
| Accuracy | | | 5 | |
| Operational temperature | | 700 | | °C |
| Stand by temperature | | 500 | | |
| Response time | | | 4 | s |
| Warm up time | | | 100 | |
| Warm up time (from stand by) | | | 20 | |

OUTLINE DRAWING

Housing type XYA1S

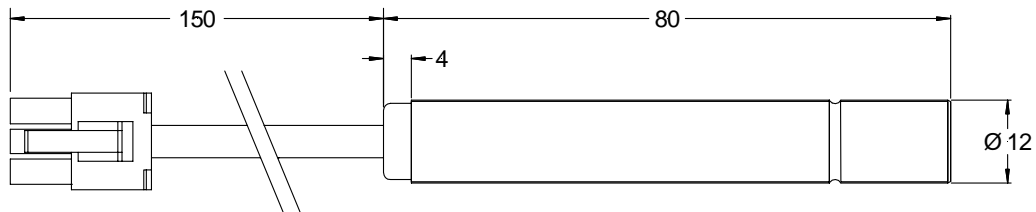


mass: 4 g

dimensions in mm

OUTLINE DRAWING (cont.)

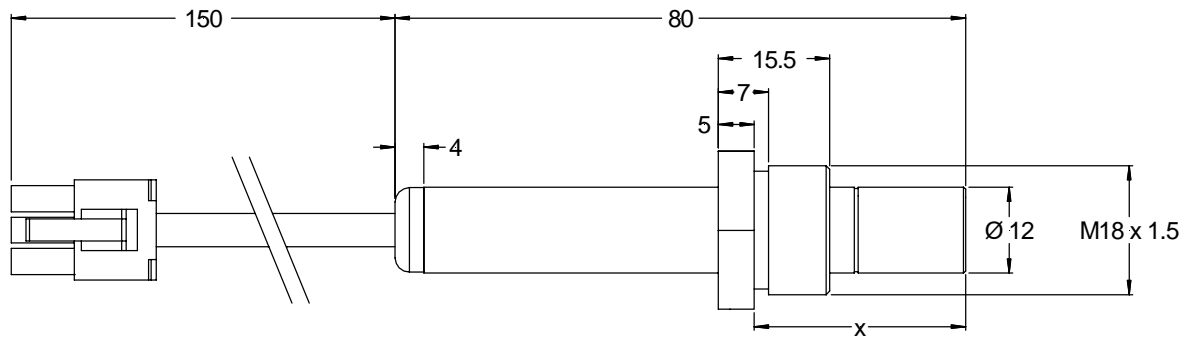
Housing type XYA2M



mass: 24 g

dimensions in mm

Housing types XYA5M, XYA6M, XYA7M



x = 28 mm for XYA5...
x = 45 mm for XYA6...
x = 55 mm for XYA7...

mass: 48 g

dimensions in mm

ORDERING INFORMATION

| Options | Series | | Housing type | Termination |
|-----------------|--------|---|---|-----------------------|
| | XYA | 1S: | cylinder | stainless steel wires |
| 2M: | | probe | Molex connector* | |
| 5M: | | screw fit probe, M18 x 1.5 (28 mm sensor header) | Molex connector* | |
| 6M: | | screw fit probe, M18 x 1.5 (45 mm sensor header) | Molex connector* | |
| 7M: | | screw fit probe, M18 x 1.5 (55 mm sensor header) | Molex connector* | |
| | | | * Molex mating connector: 39-01-2061 (plastic plug) 39-00-0041 (pins) | |
| Example: | XYA | 2M | | |

Note: Custom specific options are widely available!
Please contact your nearest Sensortechinics sales office for further information.