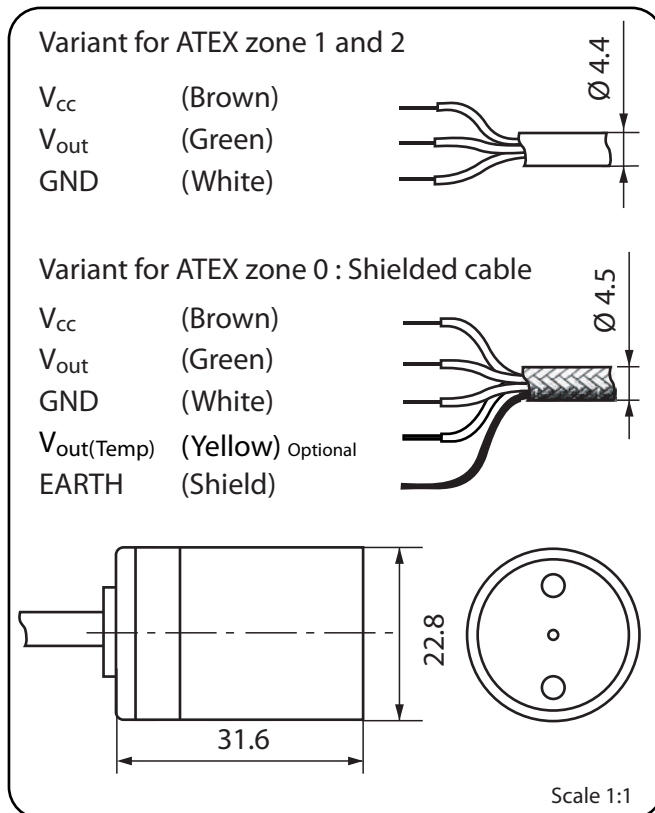


SENTS™ SH1X0

ABSOLUTE PRESSURE SENSOR FOR MEASUREMENTS OF LIQUID LEVEL WITH OPTIONAL TEMPERATURE



Technical specifications

Power supply

V_{CC}: 5 V DC ±10%
Current consumption: < 2.5 mA

Measuring range

Ratiometric output, from 10% to 90% for all pressure ranges and temperature (optional)

Temperature ranges

Operating temp. EEx applications: -20°C to 40°C
Storage temperature: -20°C to 80°C

Accuracy

Offset: ± 1.0% FS
Offset adjustment temperature: 25 °C
Sensitivity: ± 0.5% FS
Temp. coefficient of offset (TCO): ± 0.03% FS / °C
Temp. coefficient of sensitivity (TCS): ± 0.03% FS / °C
Long term stability of offset (LTSO): ± 0.5% FS
Temperature (optional): ± 1 °C

Dynamic response

Response time: < 100 ms

Media compatibility

Extra-light heating oil, Swiss SN181160-2 standards
Heavy heating oil, Swiss SN181160-2 standards
Diesel, Swiss SN EN 590 SN 181 160-1 standards
Unleaded petrol, Swiss SN EN 228 SN 181 162 standards
Petrol for apparatus, Swiss SN 181 163
Fuel for aviation, Jet A-1 and Jet B
Water

Protection class

Sensor & cable: IP68
Sensor housing: Stainless steel & epoxy
Transducer membrane sealing: Viton o-rings
Sensor cable: Oil resistant HD-PE with a tin coated copper shield for Zone 0

Electrical connections

Number of poles: 3 (4 with temperature option)
Diameter of wires: 0.5 mm (AWG26)
Wires color: DIN 47100
Max. EEx certified cable length: 100 m

EEx directives

This product complies with the following directives: 94/9/EC, 76/117/EEC & ATEX100a.

The assessment of conformity is based upon the following standards:

EN 50014: 1997 + A1 + A2
EN 50020: 2002
EN 50284: 1999

Certification Nr: SNCH Q2 ATEX 3374

EEx II 1G EEx ia IIB T4 with shielded cable
EEx II 2G EEx ia IIB T4 with standard cable



Variants:

	SH110	SH130	SH140
Measuring range [mbar]:	800-1400	800-2000	800-3000
Full Scale (FS) [mbar]:	600	1200	2200
Max operating pressure [mbar]:	1400	2000	3000
Allowed short term pressure [mbar]:	1900	3000	3000
Typical rupture pressure [mbar]:	4500	6000	9000
Length of cable [m]:	5, 10 or 20	20	30
Max. height of water [m]:	3.6	10	20

Please contact us for other measuring ranges and for different cable lengths.

Temperature sensor option: SH110T-Z0

Output: Ratiometric signal [V]
Output range: -30°C to 65°C

Temp [°C] = 1/(LN(2*(1/T_{out}-1))/3750+1/(298.15))-273.15
where T_{out} = V_{out}(Temp)/V_{CC} [0.1..0.9]