

gPIMS® Ex HT Sensor

TECHNICAL SPECIFICATION

The gPIMS® Ex HT Sensor is ATEX/IECEX certified for use in hazardous areas when connected to a gPIMS® Ex FCU (Field Control Unit). It enables automated large-area corrosion monitoring at elevated pipe process temperatures, up to 200°C.

General Characteristics

Application area High-temperature upstream/downstream hazardous area pipe monitoring

Sensor technology Piezo-electric

Sensor Physical Characteristics

Pipe diameter range 2" to 48" (DN 50 to 1200)

Axial length 200 mm [8"]

Weight (approx. for diameter range) 1.4 kg to 10.4 kg [3.3 lbs to 52.8 lbs]

Material Silicone ⁽¹⁾

Clearance Required

Circumferential Full Circumference

Axial 220 mm [9"]

Radial 40 mm [1"]

Hazardous Area Certification

Intrinsic safety ATEX/UKEX/IECEX

For process temperatures up to 200°C [392°F]  II 1G Ex ia IIB T4 Ga (-40°C ≤ Ta ≤ +90°C)

For process temperatures up to 179°C [354°F]  II 1G Ex ia IIB T3 Ga (-40°C ≤ Ta ≤ +130°C)

For process temperatures up to 114°C [237°F]  II 1G Ex ia IIB T3 Ga (-40°C ≤ Ta ≤ +130°C)

Interference with

Cathodic protection No

MFL, EC or UT in-line tools No

Installation

Coupling method High temperature epoxy resin

Pipe temperature at time of installation +10°C to +90°C [+50°F to +194°F]

Curing Time 15 minutes @ 90°C, double time for every decrease of 10°C

Install over Paint and Epoxy Yes, up to 0.25 mm [0.01"] thick

Install over Bare Metal Yes

Cable Characteristics

Fixed Cable Length 2 m [6.56 ft]

Cable Conduit Stainless Steel

Diameter 16 mm [0.63"]

Maximum Extension Cable Length 50 m [164 ft]

Cable Conduit PVC covered galvanised steel ⁽²⁾

Operating Temperature Range -20°C to +105°C [-4°F to +221°F]

Diameter 18 mm [0.7"]

Connector to Field Control Unit or Connection Box Detachable (Souriau 851-series) ⁽³⁾

Maximum Diameter 42.05 mm [1.66"]

(1) Resistant to: UV, water, oil, external shock.

(2) Liquid tight, very high UV resistance, medium flexibility and fatigue life, resistant to oil, self-extinguishing, crush resistant.

(3) Suitable for cable routing through small gaps and upgrading to autonomous collectors.

