

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"]

Temperature

Operational temperature	-40°C to +200°C [-40°F to +392°F]
Maximum temperature excursion	+220°C [+428°F]

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]
<i>Curing Time</i>	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		Extension Cable	
Length	2 m [6.56 ft]	Maximum Length	50 m [164 ft]
Cable Conduit	Stainless Steel	Cable Conduit	PVC covered galvanised steel ⁽²⁾
Diameter	16 mm [0.63"]	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

Type	Detachable (Souriau 851-series) ⁽³⁾	Maximum Diameter	42.05 mm [1.66 "]
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(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.

