MONITORING

gPIMS® Ex Sensor

TECHNICAL SPECIFICATION

The gPIMS® Ex Sensor is ATEX/IECEx certified for use in hazardous areas with the gPIMS® Ex FCU (Field Control Unit). It enables automated large-area corrosion monitoring with full pipe wall coverage; small-area thickness monitoring across eight circumferential segments beneath the sensor, and temperature monitoring.

General Characteristics	
Application area	Upstream/downstream hazardous area pipe monitoring.
Sensor technology	Piezo-electric
Sensor Physical Characteristics	
Pipe diameter range	6" to 48" (DN 150 to 1200)
Axial length	200 mm [8"]
Weight *(approx. for diameter range)*	1.4 kg to 10.4 kg [3.1 lbs to 23 lbs]
Material	Polyurethane (1)
Clearance Required	
Circumferential	Full Circumference
Axial	200 mm [8"]
Radial	25 mm [1"]
Radial, at connector	75 mm [3"]
Hazardous Area Certification	
Intrinsic safety ATEX/UKEX/IECEx	Ex II 1G Ex ia IIB T4 Ga (-40°C ≤ Ta ≤ +90°C) Ex 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 +60°C [+50°F to +140°F]
Install over Paint and Epoxy	Yes, up to 1 mm [40mils] thick
Install over Bare Metal	Yes

Cable Characteristics

Maximum Cable Length	50 m [164 ft]
Connector to Field Control Unit	Detachable (Souriau 851-series) (2)
Maximum Diameter	42.05 mm [1.66"]
Connector to Sensor	gPIMS® proprietary sealed connector (3)
Dimensions, W x H	75 mm x 55 mm [3.0" x 2.2"]
Cable Conduit	PVC covered galvanised steel (4)
Operating Temperature Range	-20°C to +105°C [-4°F to +221°F]
Diameter	18 mm [0.7"]

(1) Resistant to: UV, water, oil, external shock.
(2) Suitable for cable routing through small gaps and upgrading to autonomous collectors.
(3) 4-way connectivity with on-board cable orientation detection.
(4) Liquid tight, very high UV resistance, medium flexibility and fatigue life, resistant to oil, self-extinguishing, crush resistant

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