



Predictive Corrosion Management

Probes	
Sensor Type	Sol-Gel spray, single element
Measurement Type	Pulse-Echo 0° Transducer
Couplant	Dry-coupled
Probe Dimensions	24 x 24 x 16 mm/0.94 x 0.94 x 0.63 in
Element Sizes	8 x 8 mm/0.31 x 0.31 in
Frequency	5 MHz
Probe Spot Size (-6 dB @ 30 mm wt)	4 mm/0.16 in

Motes	
ATEX/IECEX Certification	II 1G Ex ia IIC T4 Ga, ATEX Zone 0
FM Certification (pending)	IS CL 1 DIV 1 GP A, B, C, D T4
Power	Battery
Ingress Protection	IP67
Max Number Probes per Belt*	4
Max Number Probes per Mote*	64
Max Number Thermal couples per Mote*	8
Dimensions Mote	243 x 106 x 82 mm/9.57 x 4.17 x 3.23 in [†]
Communication (wireless)	6LoWPAN
Communication Frequency	2.4 GHz
Maximum Distance Mote-Antenna	15 m/48 ft
Maximum Distance Mote-Probe**	10 m/32 ft
Maximum Distance Mote-Mote	1,200 m/3,900 ft ^{††}
Certification	CE and FCC certification pending

Gateway	
IS Certification	None
Power	Power Over Ethernet
Max number Motes per Gateway	100
Dimensions Gateway	243 x 106 x 82 mm/9.57 x 4.17 x 3.23 in [†]
Ingress Protection	IP67
Communication (wireless to mote)	6LoWPAN
Communication Frequency	2.4 GHz
Communication (wired to server)	Ethernet (TCP/IP)
Certification	CE, FCC

Operation	
Min Object Temp	-50°C/-58°F
Max Object Temp	200°C/392°F
Min Ambient Temp	-40°C/-40°F
Max Ambient Temp	60°C/140°F
Supported Pipe Diameters	3 in – 22 in (belts) >22 in (magnetic clamps)
Supported Nominal Wall Thickness	3–30 mm/0.12–1.18 in

Performance	
Depth Resolution	0.03 mm with zero crossing/0.02 mm with cross correlation
Depth Repeatability	0.02 mm with temperature compensation
Battery Lifetime	> 5 years ^{†††}

[†] Excluding antenna.

^{††} Actual Radio Frequency range performance is subject to a number of installation-specific variables including, but not restricted to, ambient temperature, relative humidity, presence of active interference sources, line-of-sight obstacles, and near-presence of objects (for example trees, walls, signage, piping, and so on) that may induce multipath fading. As a result, actual performance varies.

^{†††} Based on daily measurements with 64 probes under normal conditions.

Mini Field Agent*			
Selection Criteria/ Requirements	<ul style="list-style-type: none"> Limited cabinet space available Low power operation Low cost Modbus TCP or OPC-UA only needed Lower performance Rard CANBus support, WiFi or BLE, and IPM required 	Memory	512MBDDR3/1GB Flash
Form Factor	Small	Software	Linux
Protocols	Modbus TCP, OPC-UA	Interfaces	(4) Ethernet 10/10, IsoRS232, RS485, CAN, USB, SD, WiFi, BLE, mPCIe, Relay Out/Opto In
Performance to run Predix applications	Limited	Cellular	3G/4G/LTE/GSM/CDMA
Capacity	Low (1000+ tags)	Power	9VDC-30VDC
Connectivity Interfaces	Extensive (wireless and wired)	Power Consumption	250mA@24VDC
Embedded with GE Controls	No	Dimensions	5.5D"x5.25H"x1.5"W
Processor	600MHz Arm A8		

Browser Capabilities

Web Browsers: Google Chrome, Internet Explorer (11.0.27 and above)

Operating Systems: Microsoft Windows 7

Cloud Architecture

