COSASCO®

Online Systems Intelligent Interface Unit (IIU)

Rack 748302-10, Wall 748302-2 | 748302-5

- **Integrates Microcor® High Resolution ER and LPR Corrosion Monitoring with SCADA/DCS Systems**
- **Supports Up to 100 Transmitters in Flexible Configurations**
- **Provides Corrosion Rate Calculations and Graphical Data Visualization**
- **Offers Data Storage, Archiving, and Remote Access Capabilities**



IIU Wall Mount



IIU Rack Mount

The Intelligent Interface Unit is designed for use on small to medium size Microcor and E-9020 LPR on-line systems for easy integration into existing SCADA and DCS systems. The IIU may also be used on newer existing Legacy systems with 4-20mA ER and LPR Transmitters.

The IIU allows flexible input configurations for up to 100 transmitters in any combination of Microcor and LPR E-9020. These include direct-wired configurations, or connection via TCP/IP converters over LAN/WAN connections.

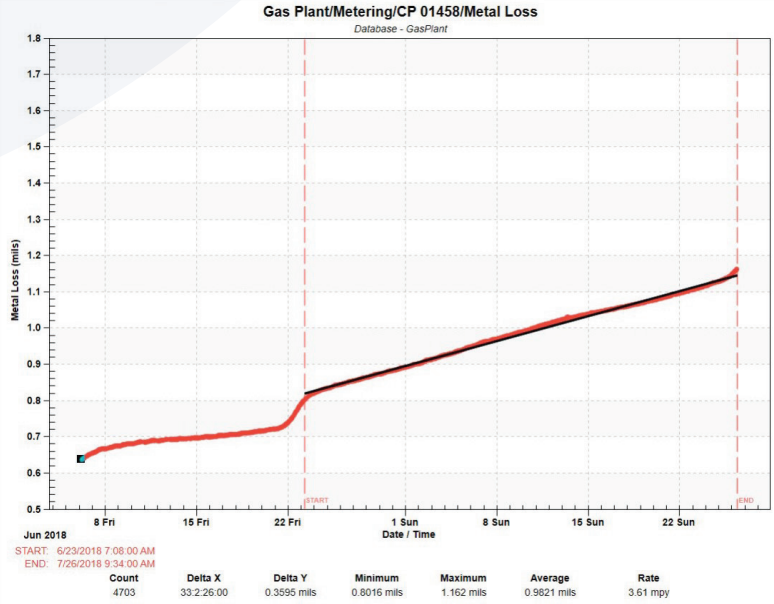
The primary purpose of the IIU is to provide the computation of corrosion rate from the metal loss made by the Microcor transmitters, since these calculations are too complex for most SCADA and DCS systems to achieve without custom programming. Output from the IIU to the SCADA or DCS system is available in engineering units over Modbus serial port or via OPC over the Network. For Microcor transmitters the available outputs are metal loss, standard computed corrosion rate, diurnal filtered corrosion rate in metric or

imperial units, and transmitter status. For LPR E-9020 the available outputs are instantaneous corrosion rate, pitting tendency (or imbalance) in metric or imperial units, and transmitter status.

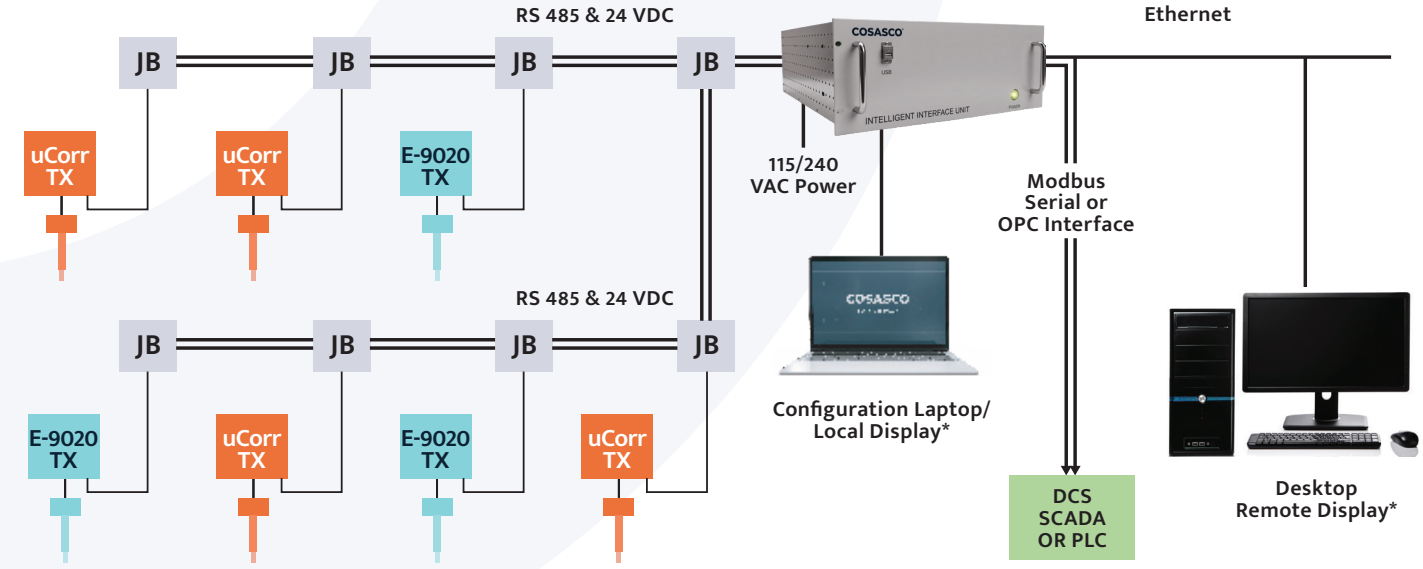
The IIU is most commonly supplied in 19" rack mounted form as shown above, but is also available in a wall mount NEMA 4 and NEMA 4X enclosures.

Configuration of the IIU is achieved through local connection of a laptop (not supplied) or over the LAN/WAN connection through Windows Remote Desktop. The IIU provides data storage and archiving, with direct graphical displays of the data through the installed Cosasco Data Online software. This permits operation as either a blind interface to a SCADA or DCS system, or as a stand-alone corrosion data storage and analysis system.

Although the IIU is fully user programmable, the IIU is normally supplied as part of a complete corrosion management system fully factory tested and configured for your application. On-site commissioning and training are given by our experienced field engineers on a day rate basis to meet your requirements.

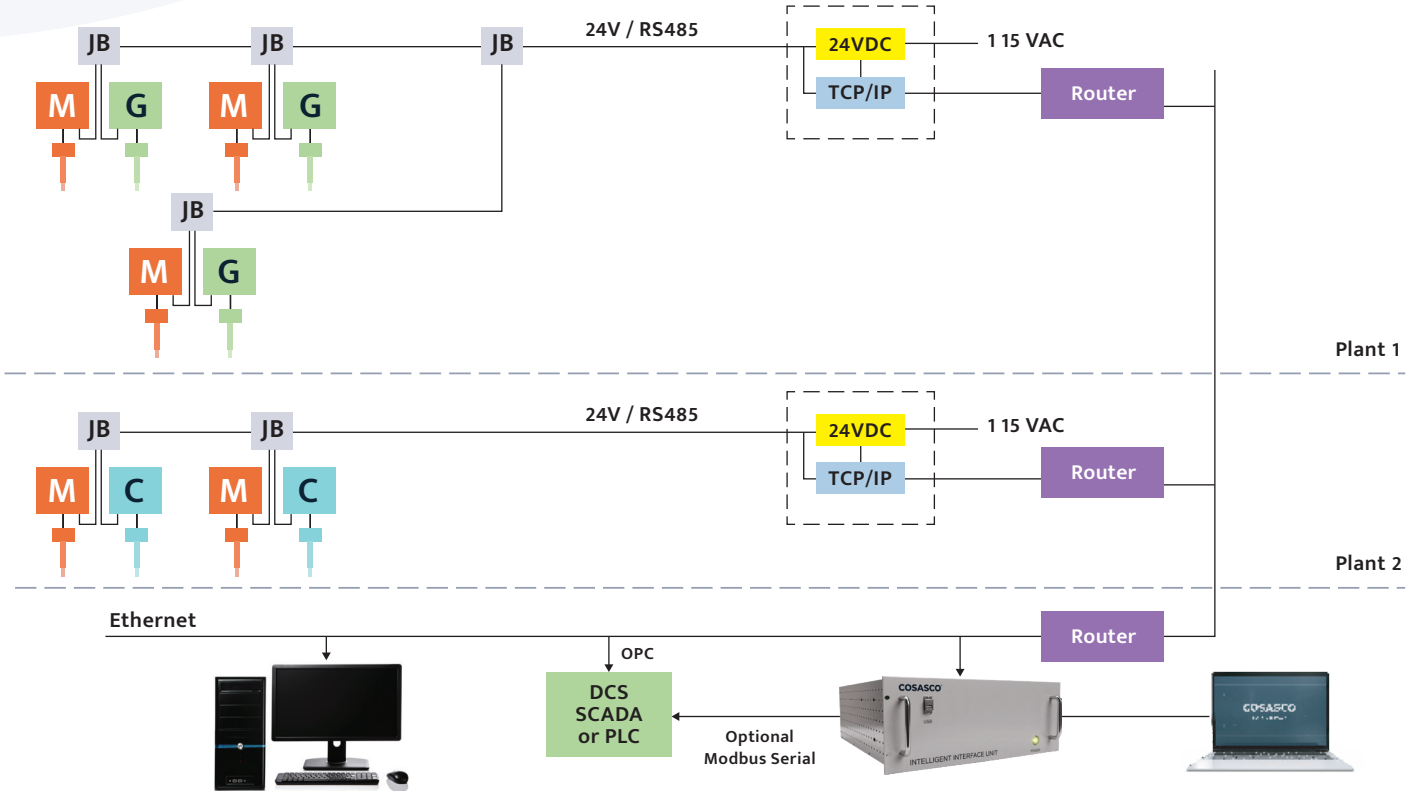


IIU Corrosion Data Graphical Interface



*Via Windows Remote Desktop

Typical System with direct hard-wired Transmitter Inputs



Typical System with Transmitters connected over Network with TCP/IP Converters

Specifications	
Input	Up to 100 Transmitters
Transmitter Type	Microcor, LPR E-9020, Galvanic E-9020
Transmitter Power Supply	Integral in IIU
Input Ports	Two direct hard-wired RS 485 multi-drop cables with serial or parallel connection up to 4000ft (1200m) max longest cable run. Up to 256 RS485 ports with separate TCP/IP converters and power supplies (sold separately) over LAN / WAN
Power Supply	100 to 240 VAC / 2.5A
Temperature Rating	0°C to 60°C
Operating System	Windows 10 IoT
Modbus	ASCII and RTU, 32 bit float, swappable bits, settable slave ID, address range 40,000 upwards
Dimensions	**Rack Mount:** 19"W x 7"H x 22" D + 4" for cable clearance **Wall Mount:** 24"W x 24"H x 8.5"D
Other	Internal connection for video/mouse/keyboard

Ordering Information

Part Number	Description
748302-2*	Intelligent Interface Unit for 115 VAC Power Input in a 600mm x 600mm x 210 mm on NEMA 4, **Wall-Mount, RAL 7032 Painted Carbon Steel Enclosure** with cable gland plate bottom side. Major internal components consist of: • Embedded PC Assembly installed with Cosasco® Data Online Software and Output Interfaces for SCADA/DCS Systems. • One 24 VDC (1.3 Amp) Power Supply and Converter, suitable for 115 VAC and 230 VAC. • One 3.0 Amp Master Circuit Breaker • Two RS-232 TO RS-485 Converters
748302-5*	Intelligent Interface Unit for 120 VAC Power Input in a 600mm x600mm x 210 mm NEMA 4X / IP 66, **Wall-Mount, 304 Stainless Enclosure** with NO cable gland plate on bottom side. Major internal components consist of: • Embedded PC Assembly installed with Cosasco® Data Online Software and Output Interfaces for SCADA/DCS Systems. • One 24 VDC (1.3 Amp) Power Supply and Converter, suitable for 115 VAC and 230 VAC. • One 3.0 Amp Master Circuit Breaker • Two RS-232 TO RS-485 Converters
748302-10**	Intelligent Interface Unit for 120 VAC Power Input in a 19 Inch **Standard Rack-Mount** configuration. Major internal components consist of: • Embedded PC Assembly installed with Cosasco® Data Online Software and Output Interfaces for SCADA/DCS Systems. • One 24 VDC (1.3 Amp) Power Supply and Converter, suitable for 115 VAC and 230 VAC. • Two RS-232 TO RS-485 Converters

*This unit is able to be configured for either 115/120 VAC or 230 VAC. As a standard it is set up for 115 VAC. If 230 VAC is required, this requirement must be stated when being ordered for proper configuration.

** This unit comes with a 115/120 VAC Wall Power Cable. If a unit with a 230 VAC Wall Power Cable is required, use "TBA" for the part number with same assembly price and lead time.

Accessories

Part Number	Description
097032-60-1	19” Rack Mount Slide-out Monitor with Keyboard and Trackpad unit.