

## REAL-TIME CONTROL INSTRUMENTATION ATEX CERTIFIED TRANSMITTER

A very high performance on-line instrument for real-time data acquisition and control activities such as erosion, corrosion or detection of other process changes.

- Very high resolution metal loss measurement from intrusive probes
- Real-time rate changes detected even in low corrosion environments
- Suitable for real-time control applications including chemical dosing and erosion management
- Works in hydrocarbons, does not require a conductive phase
- Direct temperature measurement
- Advanced temperature compensation and sensor design
- Carbon Steel or Alloy elements, wide range of thicknesses



### DESCRIPTION

Corrosion rate measurements of the sensor are made using high resolution CEION<sup>®</sup> metal-loss technology. Due to the very high resolution obtained the results may be used in real time for pro-active corrosion/erosion management and system optimisation. Measurements are made and transmitted with temperature data to an acquisition system in real time. The continuous temperature measurement gives an easily verified output that provides confirmation that the instrument is operating correctly during periods when no corrosion is taking place. The resolution is in excess of 100 times that of conventional ER, giving either very fast response or long sensor life.

The transmitter consists of an intrinsically safe instrument that is field mounted within 3m of the intrusive probe. The 24v dc power is supplied remotely via an isolating barrier and data is transmitted over a separate digital data link. The probe cable is integral with the instrument and cannot be extended in the field.

The output data consists of a metal loss measurement and a temperature with date and time. Data may be acquired direct to a PC based acquisition rack or the Cormon Receiver Card System can be used. Versatile communications protocol tools are available to enable the transmitters to be interfaced with a wide range of data management systems.

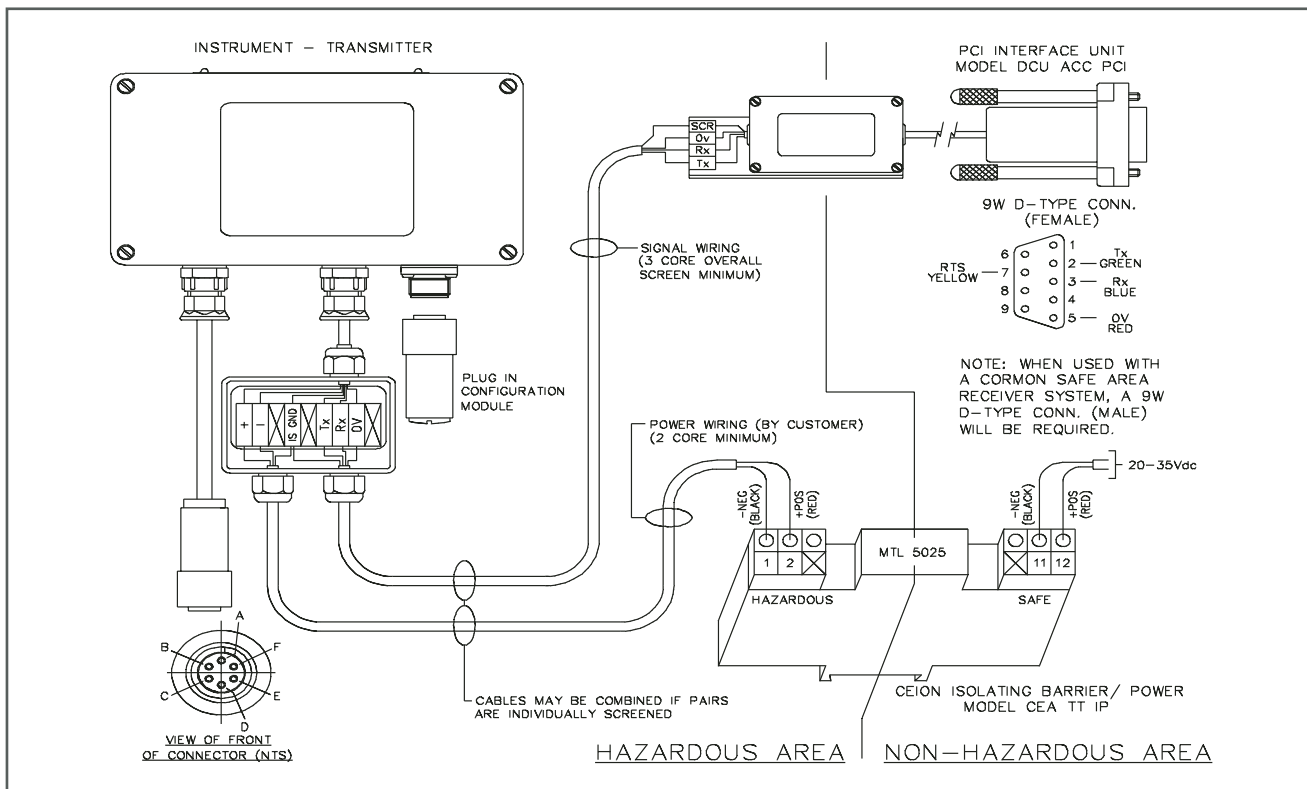
Configuration of the unit is performed using a probe specific, plug in Configuration Module or via a computer. Probes may be selected from the options set out in data sheet CMEP 023. Only CEION<sup>®</sup> compatible probes may be used.

### OPERATION

Once connected to a power supply, the instrument makes periodic measurements of the metal loss from the sensor and derives the temperature from the measurement values. The results are transmitted over the data link to the acquisition device. Measurement intervals are selectable.

### INSTALLATION

Installation steps include: specifying location, specifying access details, specifying engineering data: pressure, temperature etc., selecting and installing sensor & field cabling, installing instrument, hooking up to sensor, data/power link hook-up and hooking up data link to acquisition system



## MAINTENANCE

No routine maintenance of the instrument is required. Sensors may become fouled and require cleaning or have a limited life and require periodic replacement.

## SPECIFICATIONS

*Power:* 24v dc floating

*Barriers:* Power supply MTL5025 (or =)

P/n CEATTIP

Data opto isolator: Cormon PCI only

P/n CEA TT ID

*Ambient temperature:* -40°C to +50°C

*Metal loss resolution:* 10 ppm element thickness

*Temperature resolution:* ±1°C

*Field cable:* 2 cores (1 pair individually screened) power, 3 cores data

*Probe cable:* 3m integral with connector

*Field cable connection:* Screw terminal (IP66 junction box, supplied)

*Intrinsic safety:* Eex ia IIc T4

*ATEX certificate:* ITS03ATEX21261x

UL/CSA - ETL LISTED 3074144

*Dimensions:* 220 x 118 x 90mm, 8.7" x 4.7" x 3.5"

*Housing material:* Glass filled polyester

*Protection rating:* IP66 (NEMA 4X)

## MODEL NUMBER: CEI TT HR JB

Accessories and barriers not included.

Stainless Steel protection box P/n CEA EB WT

Calibration probe/module P/n CEA PC TK

Technical support and sales assistance are available for this product from [Sales@cormon.com](mailto:Sales@cormon.com) or from our representative network (see website for list).

Our FAO group can offer you system design, optimisation and operational services to realise the full value of your monitoring system. Contact [FAOgroup@cormon.com](mailto:FAOgroup@cormon.com) or visit the website for further information.

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