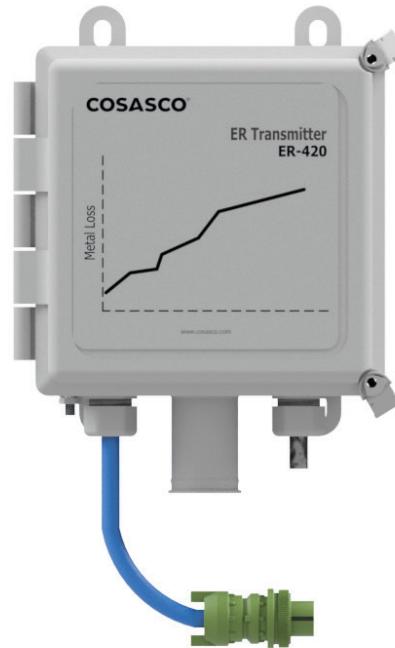
**Typical ER-420 Transmitter System**

- **Real-time Communication of Corrosion Data**
- **Compatible With All Cosasco Electrical Resistance Probes**
- **Non-sparking (IECEx/ATEX / cCSAus)**
- **Certified For Use in Class I Zone 1*/2 IP 66 Rated Enclosure**



The **Model ER-420 Transmitter** is a two-wire ER transmitter for use with ER probes. This version has been developed to meet stringent European CE and ATEX specifications. This transmitter is well suited for plant locations, widely separated monitoring points, and connection into a distributed control system (DCS).

The transmitter has a NEMA 4X enclosure with the option of up to a 100 foot probe cable. A 24 Vdc supply is typically

required to power the loop via an approved intrinsic safety barrier (for Zone 1 only). The unit provides isolation between the probe and 4-20 mA circuits. The system is designed in accordance with non-sparking (Ex nA) protection requirements for U.S., Canadian, and European standards.

*Note: Use in Zone 1 hazardous areas is permitted only when the field is made intrinsically safe through the use of a suitably certified IS barrier, installed in accordance with applicable standards and entity parameter limitations.

Specifications

| | |
|----------------------------------|--|
| Output | 4-20mA |
| Ambient Temperature Range | -40°C to +70°C (-40°F to +158°F) |
| Supply Voltage Range | 10-30 VDC at 20mA |
| Resolution | ±0.1% |
| Weight | 4 lbs. (1.8 kg) |
| Enclosures | Fiberglass Polyester NEMA 4X, IP66 or Stainless Steel (316L), IP66 |
| Probe Cable | 100 ft. maximum |

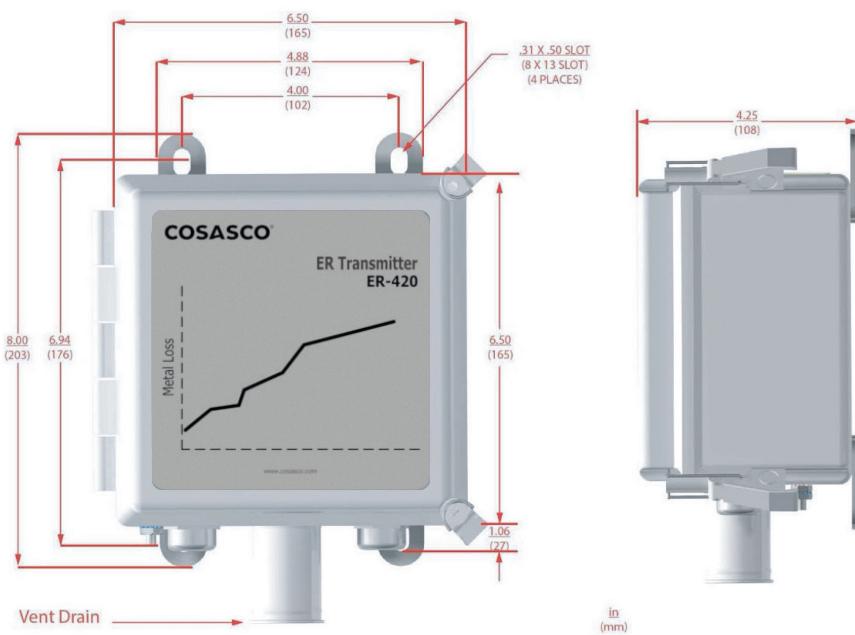
Hazardous Certifications: Zone 1* (with safety barrier) / Zone 2 (without safety barrier)

| | | |
|--------------------------------------|-----------------------------|--|
| ATEX Certification | SIRA 16ATEX4038X | Ex nA IIC T4 Gc, Tamb = -40°C to +70°C |
| IECEx Certification | IECEx SIR 16.0006X | Ex nA IIC T4 Gc, Tamb = -40°C to +70°C |
| North American Certifications | CSA Certification: 70043170 | CSA Class I Zone 2, AEx nA IIC T4 Gc, Ex nA IIC T4 Gc, Tamb = -40°C to +70°C |

Protection type "nA" permits the use of the transmitter without the safety barrier, provided the probe and transmitter are in class I Division 2 or Zone 2 area.

*Note: Use in Zone 1 hazardous areas is permitted only when the field is made intrinsically safe through the use of a suitably certified IS barrier, installed in accordance with applicable standards and entity parameter limitations.

Dimensions



| Model | Retrievable Erosion Probe | |
|--------|---------------------------|--|
| ER-420 | ER Transmitter | |
| | Code | Cable Type |
| | 0 | Standard |
| | 1 | Flexible Conduit |
| | Code | Probe Connector Type |
| | A | Inserts: 2000, 3000, 3705 |
| | B | Fixed & Adj: 2500, 2520, 2600, 2610, 2620, 3500, 3600, 4000 Series |
| | C | Retractable: 3700* (Standard Cable Only) |
| | Code | Default Probe Element Type** |
| | W | Wire Loop |
| | T | Tube Loop / Flush |
| | S | Strip Loop |
| | SP | Cylindrical |
| | Code | Enclosure Type |
| | 0 | Fiberglass Polyester NEMA 4X (Standard) |
| | 1 | Stainless Steel 316 NEMA 4X |
| | Code | Cable Length |
| | L | Cable Length in Feet (100 ft. Max) |

*Standard cable type only

**Probe Elements easily selected by rotary switch (wire loop-W, tube/flushLoop-T, Strip loop-S, cylindrical-SP).

See image to the right (rotary switch).

| Part Number | Description |
|-------------|---|
| 095786 | Intrinsic Safety Barrier for ER-420 (required for Zone 1) |
| 402207 | Mounting Bracket Assembly for Pipe |
| 748643 | Test Probe Kit (includes wire, cylindrical, tube/strip test probes) |

