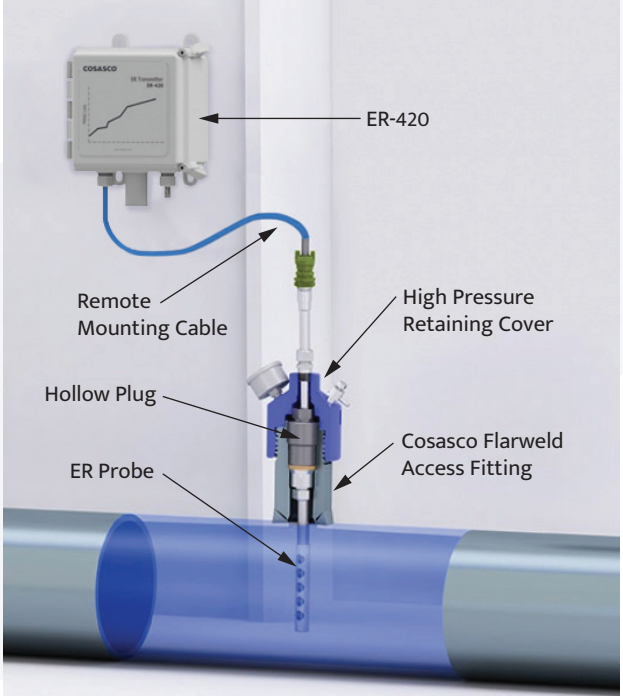
COSASCO®

ER Transmitter

ER-420



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.

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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.

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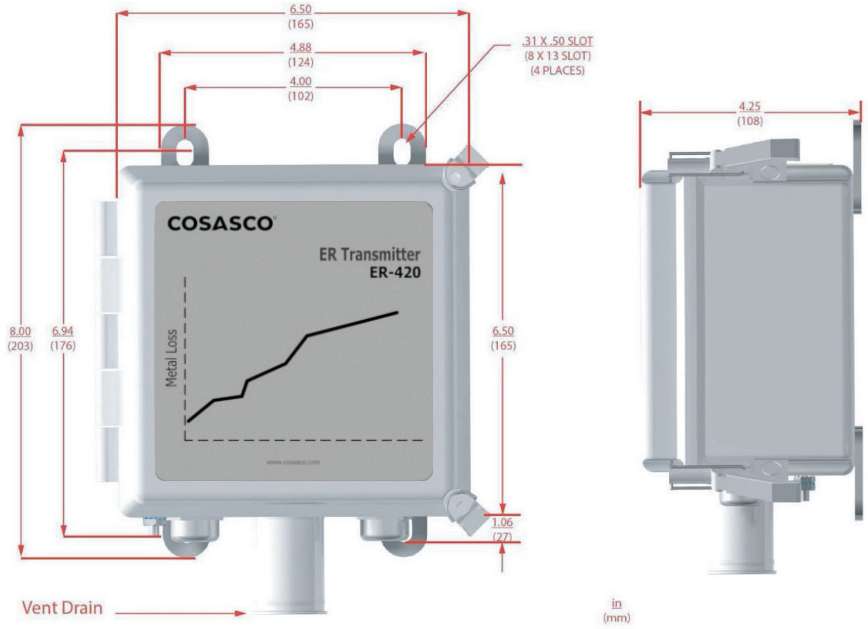
Dimensions



Ordering Information

Model	ER Transmitter
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)

ER-420	0	B	W	0	10	**Example**

*Standard cable type only. **Probe Elements easily selected by rotary switch (wire loop-W tube/flushLoop-T, Strip loop-S, cylindrical-SP). **See image below (rotary switch).**

Accessories

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)