

EO System

Electro-Optic System: Electro-Optic Encoder and Cable

Description

The EO System delivers a high resolution output when used with Flow Technology positive displacement flowmeters. Resolutions as high as 630,000 pulses per gallon (166.45 pulses/cc) may be obtained with the EO system when used with a Flow Technology PD flowmeter equipped with the Optical Interface option. The modular design of the system makes it easy to install and maintain. The high resolution enables Flow Technology PD flowmeters to be used on closed-loop control systems that must react quickly to small changes in flow rate. The EO System also provides accurate monitoring of high-viscosity fluid dispensing, where the fluid is traveling at low flow rates or is being batched in very small quantities. Some of the flow measurement applications for the EO System include hydraulics, polymers, polyurethanes, plastics, adhesives, additives and coatings. Industries served include chemical, automotive, food, pharmaceutical, and many others.



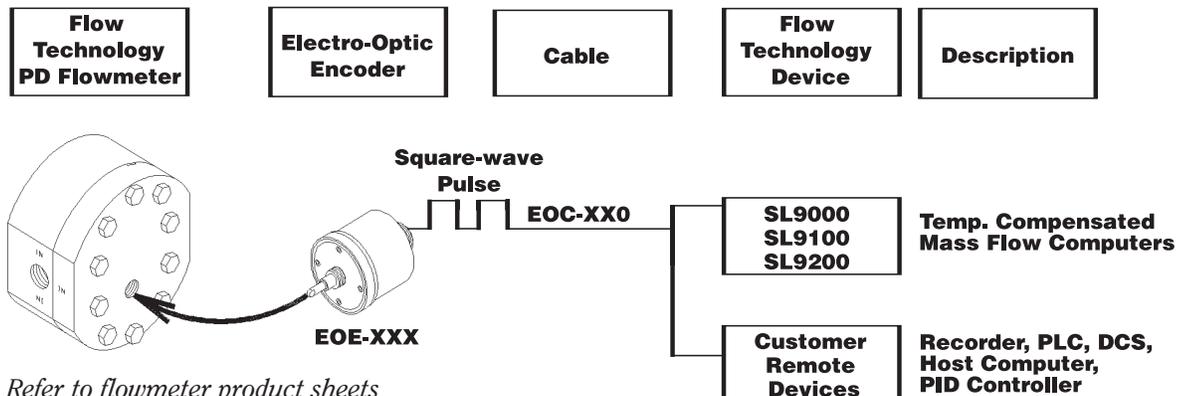
EO System
Electro-Optic Encoder and
Optical Interface Flowmeter

Protected by one or more U.S. Patents:
4641522, 4815318, 4911010, 4996888, 5027653, 5325715

Features

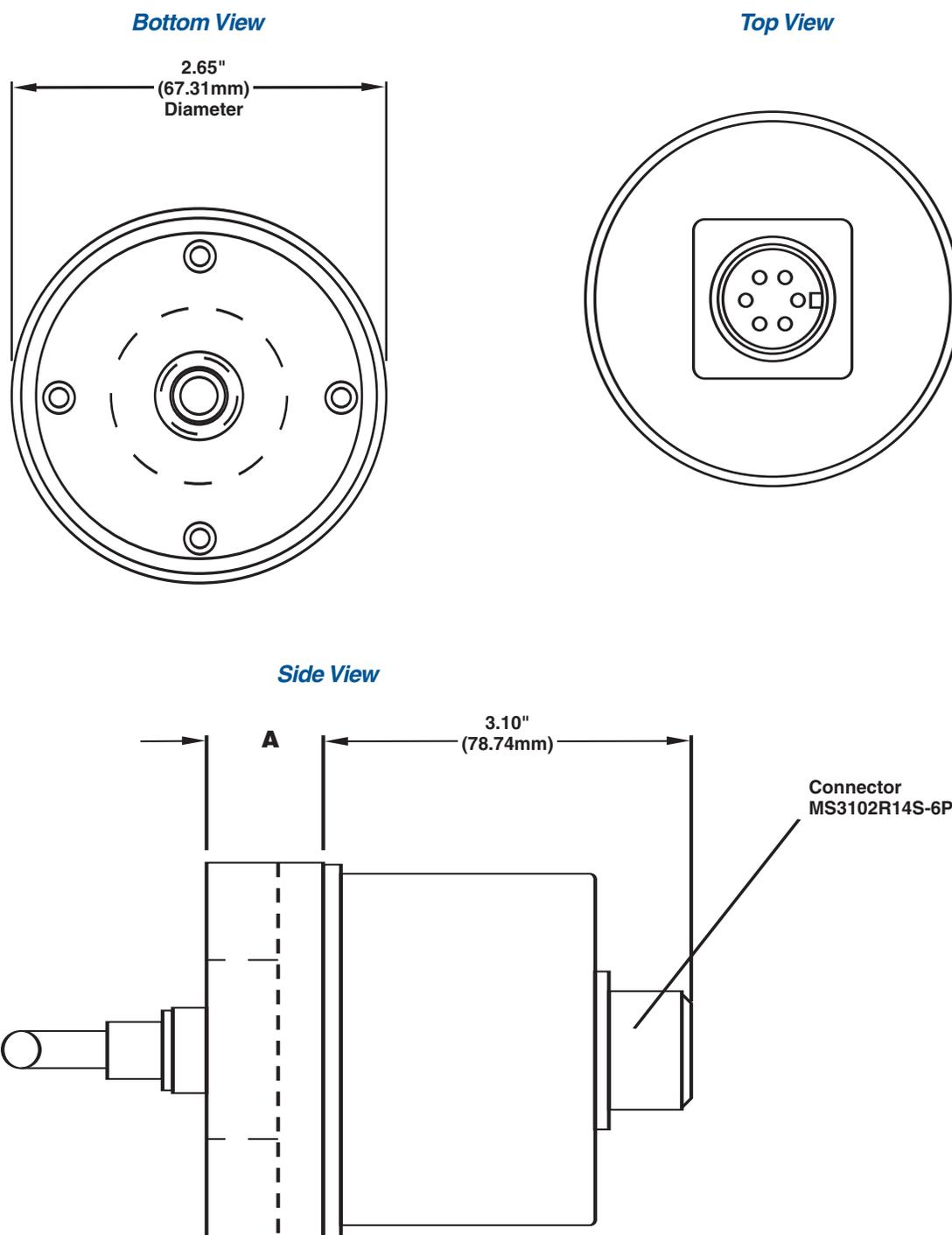
- High resolution and accuracy
- Modular design
- Patented interface with flowmeter
- TTL compatible
- Single channel or quadrature output options

Applications



Refer to flowmeter product sheets for specifications and options.

Electro-Optic Encoder Dimensions



Adapter Thickness per Flowmeter

Flowmeter Model	Adapter Thickness "A"
DC01,DC02,DC05, DC10,DC15 HP01, HP02	0.98" (24.89mm)
DC20,DC30,DC40 HP05,HP10, HP15	0.38" (9.65mm)

Specifications

EO System

Flowmeter Requirements

Flow Technology flowmeters equipped with the optical interface option

Process Temperature

Standard

+32° F to +200° F (0° C to +93° C)

Other Temperatures

Available upon request

Environment

Non-hazardous

Humidity

98% RH without condensation

Certifications

CE Approved

Basic Applications

Precise Flow Control

The Electro-Optic Encoder allows a control system to react quickly to small changes in flow rate

High Viscosity, Low Flow Dispensing

High resolution accurately measures viscous fluids traveling at low flow rates

Bi-directional Flow Control

Quadrature output monitors rate and direction of flow

Electro-Optic Encoder

Resolution

Standard

250 pulses per revolution (PPR)

Options

500 PPR, 1000 PPR

Connector

MS3102E14S-6P

Supply Voltage

Standard

7.5–24 VDC, 120 mA max.

Optional

+5 VDC ±5%

Output

Standard

7.5–24 VDC, square-wave pulse

Optional

+5 VDC, square-wave pulse

Output ICs

7406 with 2.2 K ohm pull-up resistor

Operating Temperature

+32° F to +158° F (0° C to +70° C)

Storage Temperature

-13° F to +194° F (-25° C to +90° C)

Materials

Housing and Adapter

Aluminum

O-Ring

Teflon®

Weight

1.3 lbs. (0.59 kg)

Cable

Connector

MS3106A14S-6S

Wire

22 AWG, 4 Conductor, Shielded

Maximum Operating Temperature

+167° F (+75° C)

Cable Jacket Material

Polyvinylchloride (PVC)

Insulation Material

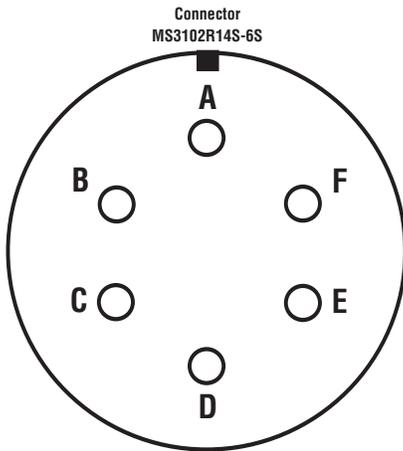
Polyvinylchloride (PVC)



Electro-Optic Encoder

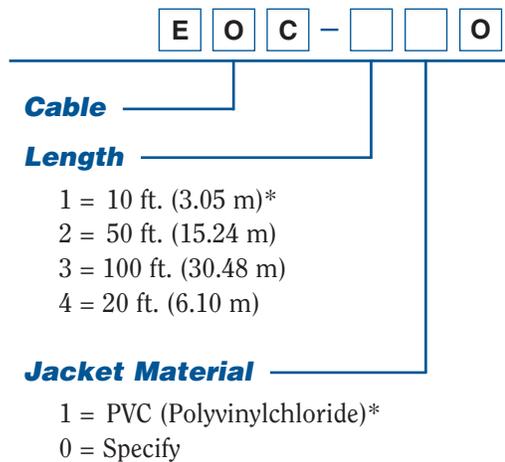
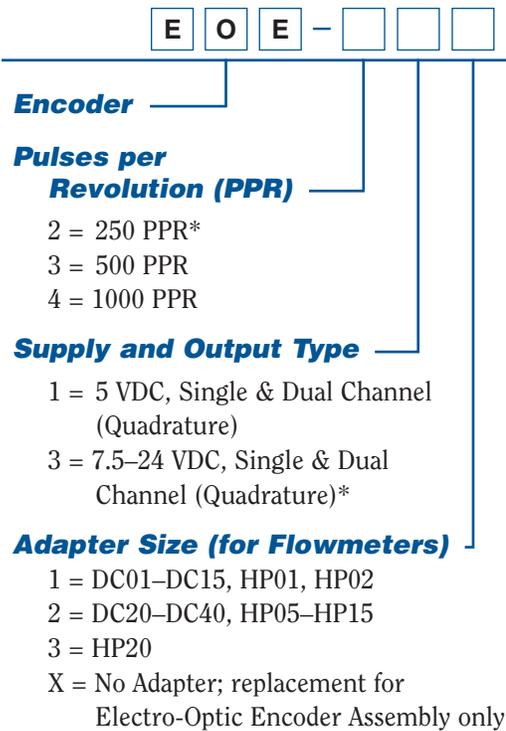
Cable Wiring Schematic

Top View



Pin ID	Wire Color and Function
A	Black DC Common
B	Red 7.5 – 24 VDC or +5 VDC
C	Not Used
D	White Channel A Output
E	Green Channel B
F	Bare/Shield Case Ground

Model Numbering System



* Standard configuration

Specifications are for reference only and are subject to change without notice.

Local Representative:



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