

EO System

Electro-Optic System:
Electro-Optic Encoder and Cable



Description

The EO System delivers a high resolution output when used with Flowdata 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 Flowdata flowmeter equipped with the Optical Interface option. The modular design of the system makes it easy to install and maintain. The high resolution enables Flowdata 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.

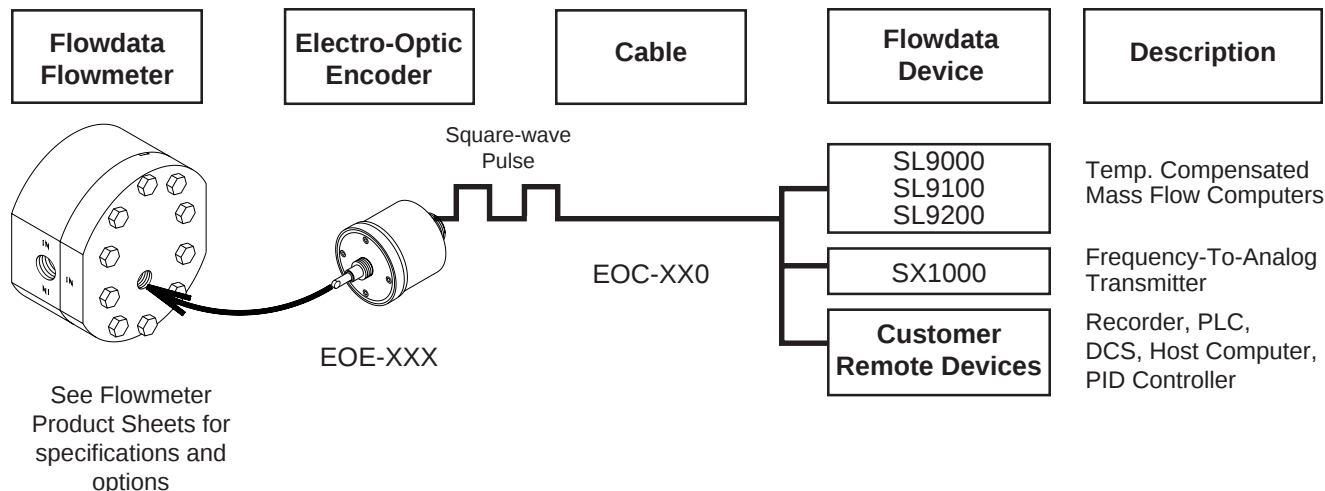
Features

- High Resolution and Accuracy
- Modular Design
- Patented Interface with Flowmeter
- TTL Compatible
- Single Channel or Quadrature Output Options



Electro-Optic Encoder

Application



Electro-Optic Encoder and Flowdata Optical Interface Flowmeter

Protected by one or more U.S. Patents:

4641522, 4815318, 4911010, 4996888, 5027653, 5325715



Ordering

See Flowmeter Product Sheets for flowmeter part number information

Encoder _____ EOE-XXX

Pulses Per Revolution (PPR) _____

- * 2 250 PPR
- 3 500 PPR
- 4 1000 PPR

Supply and Output Type _____

- 1 5VDC, Single & Dual Channel (Quadrature)
- * 3 7.5 to 24VDC, Single & Dual Channel (Quadrature)

Adapter Size _____

For Flowmeters:

- 1 DC01 - DC20
HP01, HP02
- 2 DC30 - DC40
HP05 - HP15
- 3 HP20
- 0 No Adapter; Replacement for
Electro-Optic Encoder Assembly only

Cable _____ EOC-XX0

Length _____

- * 1 10 Ft.
- 2 50 Ft.
- 3 100 Ft.

Jacket Material _____

- * 1 PVC
- 0 Specify

Key

- * Standard Configuration
- PVC Polyvinylchloride

Specifications subject to change without notice

EO System Specifications

Flowmeter Requirements: Flowdata DC-I, DC-F, or HP-I Series flowmeter equipped with the Optical Interface Option (Flowmeter Special Designator -015)

Process Temperature: 32°F to 200°F, Standard
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 Specifications

Resolution: 250 Pulses per revolution, Standard

Connector: MS3102R14S-6P

Supply Voltage: 7.5 to 24VDC, Standard
+5 VDC $\pm$ 5%, Optional

Input Current:

TTL: 150 mA typ., 200 mA max.,

CMOS: 125 mA typ., 150 mA max.

Output: 7.5 to 24VDC Square-wave pulse, Std.
+5 VDC Square-wave pulse, Optional

Output IC's: 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 lb.

Cable Specifications

Connector: MS3102R14S-6S

Wire: 20 AWG, 4 Conductor, Shielded

Maximum Operating Temperature:
+176°F (+80°C)

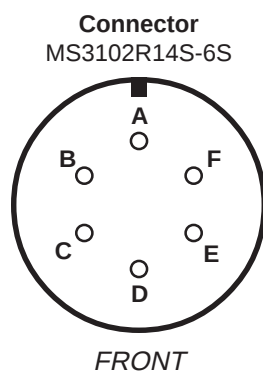
Cable Jacket Material:

Polyvinylchloride (PVC)

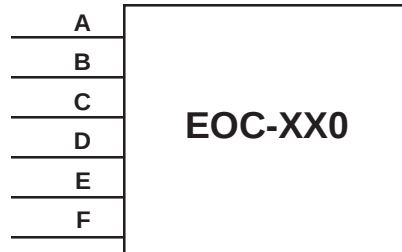
Cable Jacket Color: Grey

Insulation Material: Polyethylene

Cable Wiring Schematic



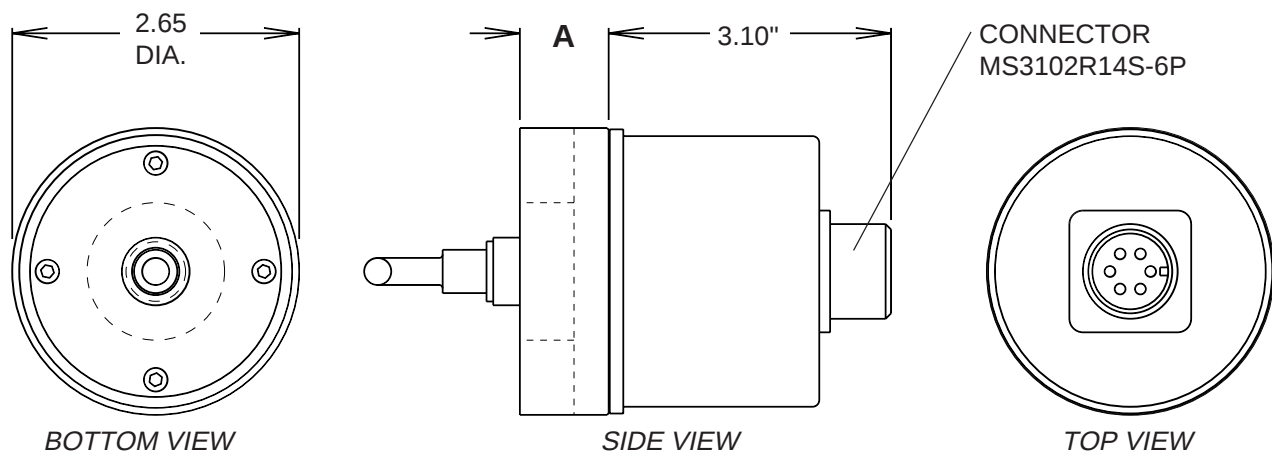
Pin I.D.



Wire Color and Function

Black	DC Common
Red	7.5 to 24VDC or +5VDC
	Not Used
White	Channel A Output
Green	Channel B
Bare/Shield	Case Ground

Electro-Optic Encoder Dimensions



FLOWMETER MODEL	ADAPTER THICKNESS "A"
DC01, DC02, DC05, DC10, DC15 HP01, HP02	0.82
DC20, DC30, DC40 HP05, HP10, HP15	0.38

Notes:

All dimensions in inches.

Specifications subject to change without notice.

Flowdata Product Families

Exact Series:	Patented dual rotor turbine flowmeters provide diagnostics, turbulence insensitivity and the widest turndown in the industry for liquid & gas applications in the aerospace, automotive, industrial and petrochemical industries.
TrickleMeter™ Series:	Low flow, precision gear meters for pressures from 5 psi to 6000 psi on applications such as chemical injection, resins, adhesives, lubricants and greases.
Decathlon Series	
DC-I Industrial Series:	Industrial, in-line flowmeters for liquid flows with working pressures of up to 1000 psig.
DC-F Sanitary Series:	Sanitary, in-line flowmeters for "clean industry" applications such as food, beverage, dairy, and pharmaceutical.
DC-E Economical Series:	Economical, in-line flowmeters designed to handle basic industrial flow applications.
AP-I Flowmeters:	Engineered thermoplastic, in-line flowmeters for "ultra-pure" or aggressive chemical applications such as acids, caustics, and DI water.
HP-I Flowmeters:	High pressure, in-line flowmeters for operating pressures up to 10,000 psig.
Flow Controls:	Rate/Totalizers, Batch Controllers, Mass Flow Computers, Sensors, Transmitters, Signal Conditioners, HART® protocol and More.

Limited Warranty

For a period of not less than one (1) year nor more than two (2) years from the original date of shipment. Seller warrants that the products described in this Warranty are free from defects in workmanship and materials only. For specific Warranty periods please refer to Seller's Warranty schedule. Seller shall not be liable for any special, incidental or consequential damages. This Warranty extends to the original purchaser of the product warranted hereunder and to each transferee owner of the product during the term of the Warranty. In the event of a defect, malfunction, or failure of the product not caused by any misuse or damage to the product while in possession of the owner, the warrantor will remedy the failure or defect, within a reasonable amount of time after written notification from the owner of same. The remedy will consist of repair or replacement of the product only, at the warrantor's option. The owner must return the defective or malfunctioning component part(s) to the factory for such repair or replacement. If this product or one of its component parts is modified in any way by the owner, transferee owner, his agent or employee, this Warranty shall become null and void.

Local Representative:



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WORLD WIDE WEB

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