

Pulse Encoder Change

Introduction

The 1000 pulse encoder increases the resolution of the flowmeter for fluids with high viscosity and low flow rates. It is designed for use on Nordson 1/4-, 3/8-, 1/2-, and 1-in. flowmeters.

Pulse Encoder Replacement

The following paragraphs provide pulse encoder replacement procedures.



WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Removal

See Figure 1.



WARNING: Before removing the encoder from the flowmeter, relieve system pressure. Failure to observe this warning may result in serious injury or death.

NOTE: Disassembling the encoder will void the warranty.

1. Disconnect the encoder cable (1) from the encoder (2).



CAUTION: Do not bump or bend the magnet end of the encoder shaft.

2. Unscrew the encoder from the flowmeter cover (4). The encoder O-ring (3) may fall loose when the encoder is removed. If the O-ring does not fall loose, remove it.

Installation

See Figure 1.

NOTE: Make sure that the encoder O-ring remains completely within the groove of the encoder base.

1. Apply a compatible O-ring lubricant to the encoder O-ring (3). Insert the O-ring into the groove of the encoder (2).



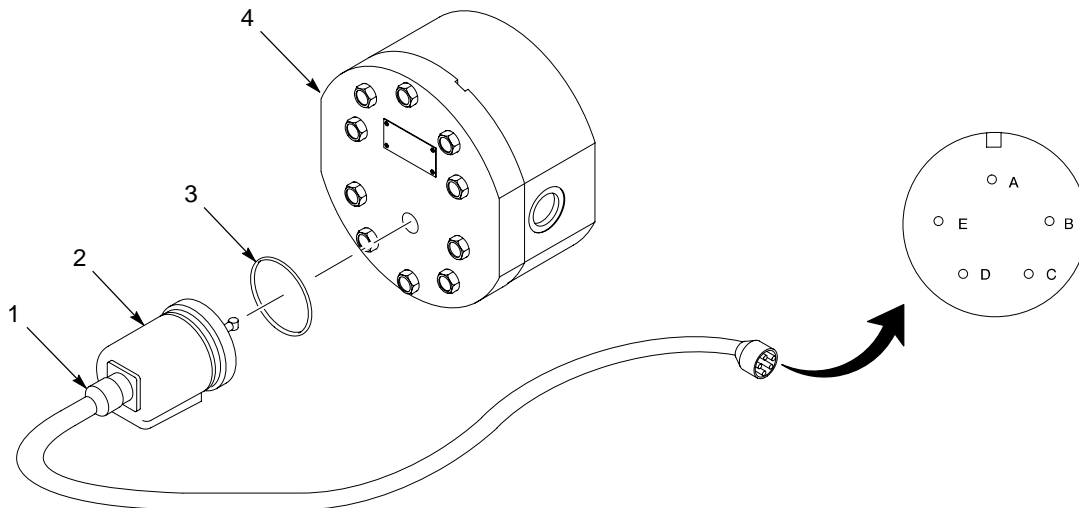
CAUTION: When screwing the encoder into the cover, do not bump or bend the magnet end of the encoder shaft.

2. Carefully screw the encoder into the flowmeter cover (4) until the encoder base is flush with the surface of the cover. Hand-tighten the encoder, but do not overtighten it.
3. Connect the encoder cable (1) to the encoder and tighten the locking nut.

Determining Flow Rate

NOTE: Perform this procedure only if you replace a 250 pulse encoder with a 1000 pulse encoder.

When performing the initial setup procedure for the controller, determine the new flowmeter constant (K-value) in counts/liter by multiplying the K-value of the 250 pulse encoder by 4. Refer to the *Operation* section of the controller manual for the initial setup procedure.



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Figure 1 Flowmeter with Encoder Assembly

- | | |
|------------------|--------------------|
| 1. Encoder Cable | 3. Encoder O-ring |
| 2. Encoder | 4. Flowmeter cover |

Parts

To order parts, call the Nordson customer service center or your local Nordson representative.

Order this encoder for $\frac{3}{8}$ -, $\frac{1}{2}$ -, and 1-in. flowmeters.

Part	Description
220342	Encoder, assembly.

Order this encoder for $\frac{1}{4}$ -in. flowmeters.

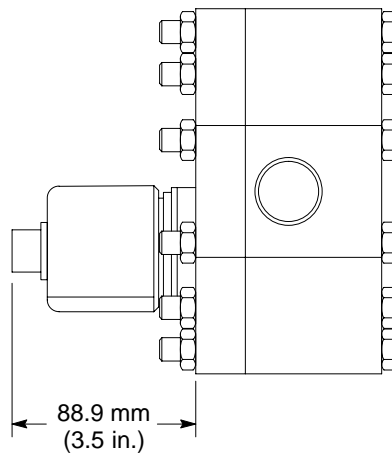
Part	Description
1018245	Encoder, assembly, $\frac{1}{4}$ in.

Specifications

Pulses per Revolution:	1000
Supply Voltage:	7.5–24 Vdc
Current Requirements:	TTL: 200 mA max, 150 mA typ CMOS: 150 mA max, 125 mA typ
Output:	7.5–24 Vdc square-wave pulse, standard
Output ICs:	7406 with pull-up resistor
Environmental Temperature:	0–70 °C (32–158 °F) 121 °C (250 °F) rating for bearing style impellers 70 °C (158 °F) rating for encoder without standoff
Connector:	MS3102R14S-5P
Cable Pin-Outs:	A: VCC B: Output A C: Common D: Case Ground E: N/C

Dimensions

See Figure 2.



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Figure 2 Encoder Dimensions

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