

Encoder type ME14-02 Instructions for safe installation

Safety approvals:	ITS15ATEX18264X IECEX ITS 15.0036X
Approval type:	II 2 G Ex db IIB T6 Gb, Ex db IIB T6 Gb
Approvals:	EN IEC 60079-0, EN 60079-1, IEC 60079-0, IEC 60079-1 EN 61000-6-2, EN 61000-6-3, EN 61326-1
Manufacturer:	Eltomatic A/S Fabriksvej 6 DK-9490 Pandrup Denmark Phone: +45 9824 6166 – mail: eltomatic@eltomatic.com

- Note:** These instructions for safe installation must be followed to ensure safe and proper installation and operation of the encoder. Read instructions carefully before installation. Failure to comply with these instructions may result into damage to the equipment may invalidate all applicable warranties.
- Warning:** All connection should be made by a qualified technician. All connections in the hazardous area should be completed by a qualified and licensed electrician, with specific experience in petroleum hazardous areas. Injuries resulting from incorrect installation, installation by an un-licensed or under qualified electrician, misuse, or other improper installation activity, are NOT the liability of the manufacturer.
- Warning:** Do not open when an explosive atmosphere is present.
- This encoder is designed and certified for installation in hazardous area of petrol, diesel and LPG flow meter dispensing systems. The maximum test pressure is 7.5 MPa and max permitted operating pressure is 2.5MPa.
- Do not install the encoder if there is a suspicion that the encoder has been tampered or damaged mechanically as such damage may impact the explosion proof design.
- Installation must only be carried out with power OFF! Care must be taken to ensure that the electrical potential balance is maintained when installing the shaft encoder.
- the equipment is Factory sealed
- Cable is factory installed and is not to be removed
- The recommended cable connection sequence is; 1: Shield, 2: Channel outputs, 3: 0VDC, 4: +VDC. Never connect outputs together.
- The encoder cable must be routed and fixed in such a way that it is protected from mechanical damage and splashing. The extended ambient temperature range for this encoder is -32 °C to +60 °C. Operation of the encoder outside these limits contravenes the certification.
- The internal grounding terminal shall be used for the equipment grounding connection and that the External terminal is for a supplementary bonding connection where local codes or Authorities permit or require such connection. The external earth clamp assembly point on the side of the encoder housing is designed to securely clamp 1 or 2 earth wires of 4.0mm² section.

12. The encoder is intended to be used under the following conditions:
 - a. Open air locations (OIML R 117-2:2014; H3) excluding those in extreme climate zones such as polar and desert environments.
 - b. Maximum altitude is 2000 m above sea level
 - c. Maximum relative humidity 80 % for temperatures up to 31°C decreasing linearly to 50 % relative humidity at 40°C.
 - d. The encoder is not intended for connection to circuits exceeding 15VDC
13. The X marking refers to the following points:
 - a. The cable must be connected in a safe area or suitable certified junction box.
 - b. The encoder is available with a power supply voltage rating of Input 5.0 to 15VDC – max. 60mA.
 - c. To ensure safe connection in potentially explosive areas where the encoder is connected to the power supply via a terminal or terminal screws of “ignition protection category e”, the conductive area of the cable ends should be increased by using suitable crimp sleeves or crimp shoes. Refer to the product specification for wire color coding.
14. Keep the encoder clean. If the encoder is used in a dusty environment, the encoder must be regularly checked and cleaned. If signs of wear are noticed, check the encoder and replace if necessary.
15. There are no maintenance requirements. Repairs can only be carried out by Eltomatic.
16. The equipment is factory sealed. No modifications must be made to the flame paths of the enclosure without consultation to the manufacturer's drawings. Cover fasteners are to be class 8.8 with a minimum yield strength of 800Mpa. DO NOT open the encoder or attempt to remove the main label; otherwise certification and warranty will immediately become void.

Do not hesitate to contact Eltomatic in case of any question