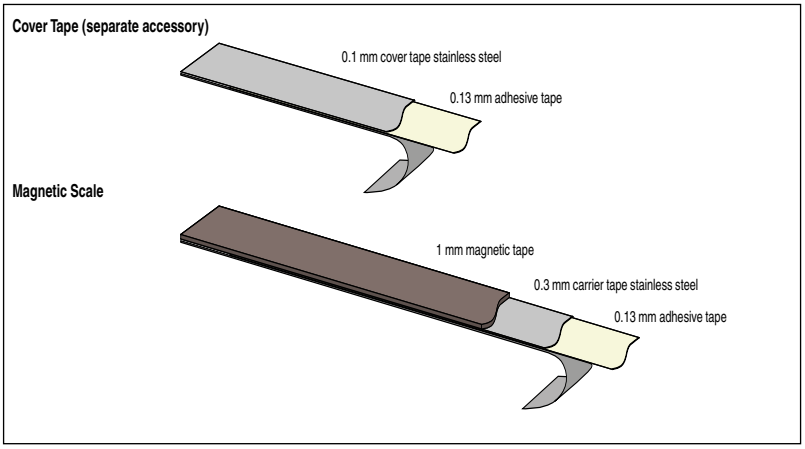
EN

Mounting Instructions for Contactless MNI35 Incremental Rotary Encoder and Linear Incremental Magnetic Tape

Structure of the Magnetic Tape

The magnetic tape comprises a flexible elastomer tape connected to a magnetically conductive steel band. A double-sided adhesive tape is attached to the underside of the steel band.



A magnetically permeable steel band to cover the elastomer layer is available as an option. The band can be assembled at the factory or ordered for retrofitting.

Warning

The magnetic tape must not be affected by external magnetic fields. Make sure that the magnetic tape does not come into direct contact with magnets (e.g., electromagnets, permanent magnets, magnetic clamps, etc.). This may result in measurement inaccuracies or a complete failure of the measuring system.

Prerequisites for Mounting Magnetic Tape

The surfaces must be cleaned, dry, and free of dust, grease, oil, oxides, separating agents, and other contaminants.

The adhesive tape does not stick to the following materials very well. Avoid using the adhesive tape on these materials:

- Polyolefins (polyethylene, polypropylene)
- Rubber (EPDM, etc.) or silicone
- Powder-coated materials
- Teflon

Approved Cleaning Agents:

- Isopropanol up to a 50/50 mixing ratio with water
- Ethanol
- Clean, lint-free disposable cloths

Applying Magnetic Tape

Processing Instructions

- To prevent damage to the magnetic tape, do not stretch, compress, or twist the magnetic tape.
- Before applying the magnetic tape, plan its future orientation to the rotary encoder.
- Once the magnetic tape is applied, it cannot be re-used as removing the tape will destroy it.
- Apply the magnetic tape at an ambient and material temperature of + 15 °C to + 25 °C. Select a material temperature that is higher than the dew point and will prevent condensation from forming.
- The final adhesive strength of the adhesive tape will be reached only after 72 hours (at 20 °C). Heat accelerates the process (1 h at 65 °C).
- You can cut the magnetic tape to length before or after it is applied. Use sheet-metal shears as these can cut through the integrated steel band.
- If necessary, use a suitable tool to deburr the ends of the magnetic tape.

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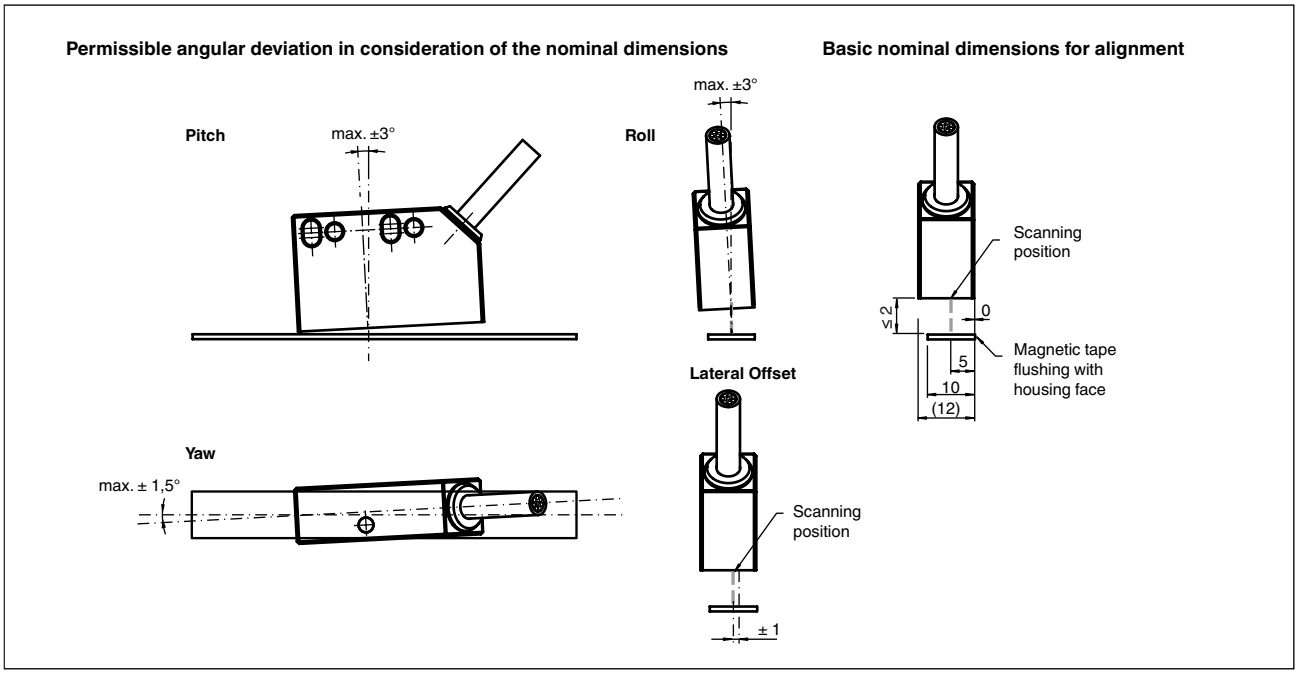
Procedure

1. Clean the contact surface of the material with an approved cleaning agent and a lint-free disposable cloth.
2. Remove the protective film from the adhesive tape on the bottom of the magnetic tape (unroll the tape) and apply the tape at the desired location.
3. Firmly press the magnetic tape, e.g., using a pressure roller.
4. If not already cut, cut the magnetic tape to the desired length using sheet-metal shears and deburr the ends of the magnetic tape if necessary.
5. Firmly press the cut end of the magnetic tape, e.g., using a pressure roller.

Mounting and Aligning the MNI35 Incremental Rotary Encoder

Mount the incremental rotary encoder using the existing mounting holes (M4 thread or D 3.4 hole). Orient the incremental rotary encoder correctly according to the following magnetic tape orientation requirements.



LED Indicators

LED status	Description
Green On	Sensor is ready for operation: Supply voltage applied and magnetic tape detected.
LED Off	Possible reason: - Supply voltage drop or no supply voltage - Magnetic tape is not detectable, e.g., gap too large

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