Euro MT - Multiturn Sensor

- Non-contacting, magnetic
- Long life
- Electrical angle 720° up to 5760° in 360°-steps available (equates to 2 ... 16 turns)
- True-Power-On system (absolute)
- High shock and vibration resistance

By combining separate single-turn angle detection and multi rotation detection, this compact sensor is able to measure angles across multiple turns providing high resolution and accuracy. As the sensor can detect turns in an unpowered state and stores its position in non volatile memory, it is a real true power on angle sensor in a very compact size.

### Specifications

#### Mechanical
- Typical Life Cycle: > 50 x 10⁶ (mechanical)
- Torque: 0.5 Ncm (IP65), 1.0 Ncm (IP67)
- Measuring range: 720° up to 5760° in 360°-steps available (equates 2 ... 16 turns)
- Max. operating speed: 800 RPM
- Housing: High grade temperature resistant plastic
- Bearing: Bronze sleeve
- Shaft: Stainless Steel - push-on coupling or marked shaft

#### Environmental
- Operating temperature: -40°C to +85°C
- Vibration: 5...2000 Hz, A<sub>max</sub> = 0.75 mm, a<sub>max</sub> = 20 g
- IP rating: IP65 (IP67 on request)

#### Linearity
- Measuring range: 3, 6, 10, 16 turns
- Linearity typ.: 0.167, 0.093, 0.050, 0.031 %
- Linearity max.: 0.267, 0.183, 0.150, 0.131 %

#### Electrical
- Supply Voltage: 5 VDC +/- 0.5V
- Output signal: Ratiometric load > 10 kΩ, 0.1...10 V load > 10 kΩ, 4...20 mA, burden < 500Ω
- Independant linearity: 0.25...0.03 (see table below)
- Resolution: 18 bit full
- Repeatability: +/- 0.1%
- Response time: max. 2 ms
- Isolation resistance: ≥ 10 MΩ (500 VDC)
- Electrical connection: See ordering code

### Ordering information

(please use the characters in the chart below to construct your product code)

**Sample Code:** Euro-MT - 2841 - 003 - 221 - 910

**Stock model:** Euro-MT 2841-003-221-910

<table>
<thead>
<tr>
<th>Series</th>
<th>Mechanical version</th>
<th>Number of turns output characteristics</th>
<th>Supply Voltage</th>
<th>Output signal</th>
<th>Output configuration</th>
<th>Electrical connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euro-MT</td>
<td>2841: push-on-coupling, IP65</td>
<td>003</td>
<td>2: = 5 VDC (4.5 ... 5.5)</td>
<td>2: 0.5 ... 4.5 V ratiometric to Ub</td>
<td>1: rising curve CW</td>
<td>910: 3 x 0.5 metre Raychem cable - Red-Supply White-Single Black-Ground</td>
</tr>
</tbody>
</table>

Custom options available upon request for 25+ pieces

**PITCH TECHNOLOGIES**
Votre distributeur agréé
VARIOHM en France
01 34 85 54 68
https://pitch-technologies.fr
info@pitch-technologies.fr

Subject to change without notice
**Euro MT - Multiturn Sensor**

### Dimensions in mm - Euro MT

- **Shaft detail**
  - Dimensions of driving shaft for Euro MT 2841
  - Parallel displacement < 0.05mm

- **Recommended hole pattern**
  - 2x Ø 4.3 or 2x M4

- **Dimensions of driving shaft**
  - for RSM 2821 / RSM 2841 / RSM 2871
  - Parallel displacement < 0.05mm

- **Vorschlag Bohrbild**
  - recommended hole pattern

- **Output signal measuring range 2...14 turns**

- **Wiring**
  - according to Spec 55 from Raychem (55A 0111-22 ...)
  - Insulation: XLETFE
  - Outer Ø of insulation: 1.08mm
  - Cross-section: 0.38mm²
  - Wire diameter: 19 x 0.16mm
  - Operating temperature: -65 ... + 150 °C

- **Red-Supply**
  - White-Single
  - Black-Ground

- **Output**
  - Signal measuring range 2...14 turns
  - When the shaft marking points to the cable outlet, the sensor is in a full turn position.

**Varoehm EuroSensor - Williams' Barn - Tiffield Road - Towcester - Northants - NN12 6HP - UK**

sales@variohm.com • www.variohm.com • +44 (0) 1327 351004

Subject to change without notice