

TCW4 CANopen

CANopen Absolute Multi-turn Modular Rotary Sensor

TCW4 CANopen is a modular hall effect rotary sensors. With its two-part design TCW4 CANopen offers maximum flexibility for installation.

The sensor is paired with a magnet of your choice (see magnet datasheet) and the non-contact operation ensure minimal wear and excellent lifetime.

TCW4 CANopen is a robust and well proven sensor for the harshes conditions, used in off-road vehicles and mobile machinery with excellent shock and vibration resistance.



- Absolute multi-turn sensor
- Modular two-part design
- Shock and vibrant resistant
- Custom option available

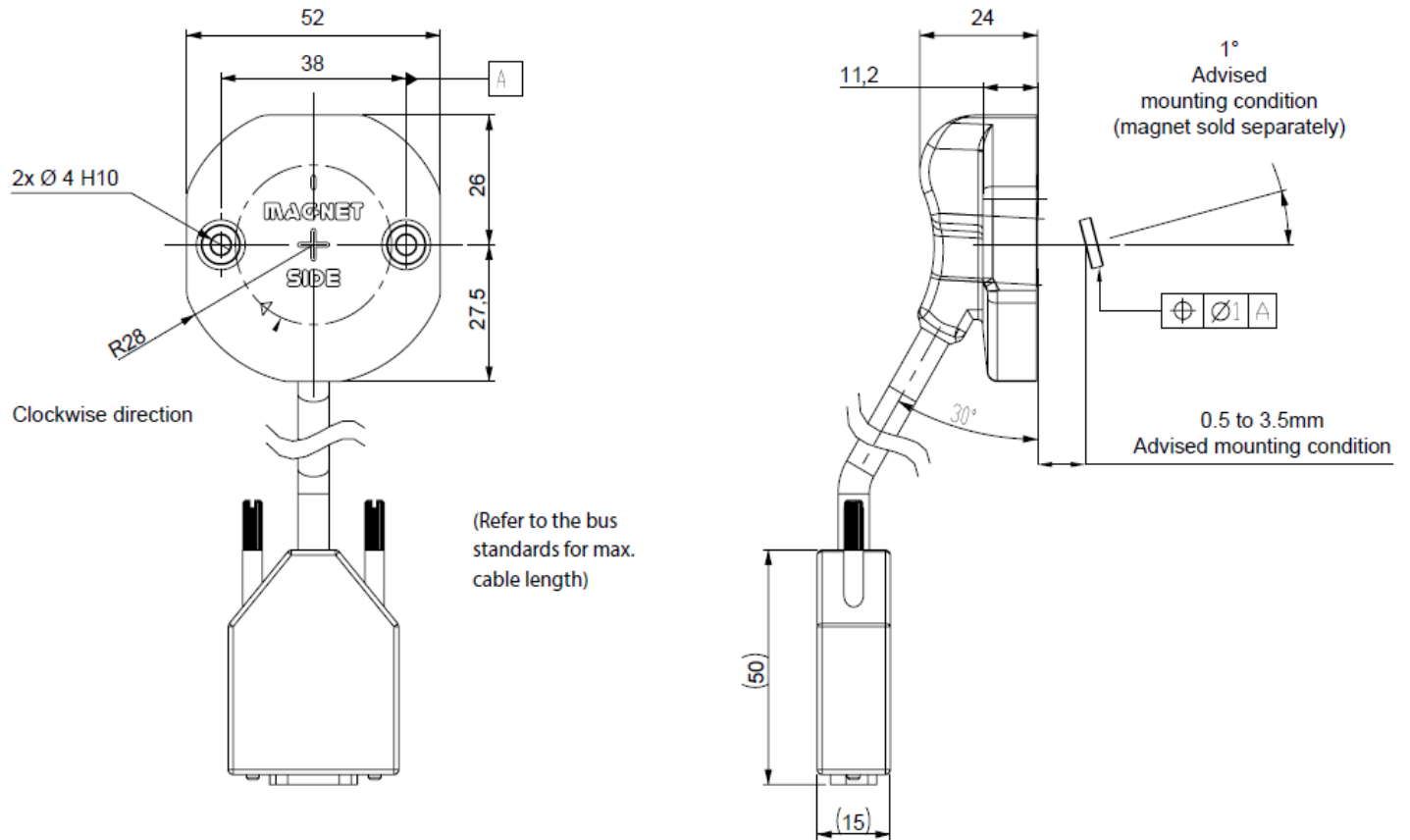
| Electrical Specifications | |
|---------------------------|---|
| Supply Voltage | 5 to 30 Vdc |
| Output Function | CANopen |
| Electrical Angle | 360° |
| Accuracy | ± 0.3% on 360° |
| Repeatability | ± 0.1% on 360° |
| Resolution | Multi-turn 12 bit/turn up to 16 bits turns |
| Min. Cycle Time | < 400µs |
| Start-up | < 1 s |
| Current Requirements | < 40 mA |
| Protection | Overvoltage Protection Reverse Polarity Protection Short Circuit Protection |
| EMC | IEC 61000-4-2 Electrostatic discharge (ESD) 4 kV, 8 kV IEC 61000-4-3 Electromagnetic fields 10 V/m (80MHz - 1GHz), 3V/m (1.4GHz - 2GHz), 1V/m (2GHz - 2.7GHz) IEC 61000-4-4 Electrical fast transients (burst) 1 kV IEC 61000-4-6 Conducted disturbances, induced by RF-fields 10 Veff |
| MTTFd | Available on request |

| Environmental & Mechanical Specifications | |
|---|--|
| Operating Temperature | - 30... + 85 °C (encoder T°) |
| Vibrations (EN60068-2-6) | ≤ 200m.s ⁻² (55 ... 2 000 Hz) |
| Shock (EN60068-2-27) | ≤ 2000m.s ⁻² (during 6 ms) |
| Ingress Protection Housing | IP67 (IP69K option) |
| Material Electric Connection | PVC cable with SUBD9 connector |
| Material Housing | Macromelt PA638 |
| Material Magnets | See specification magnet datasheet |
| Weight | 0.150 kg |

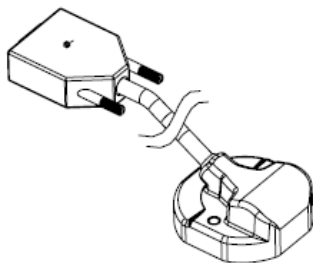
TCW4 CANopen

CANopen Absolute Multi-turn Modular Rotary Sensor

Dimensions (mm)



D-Sub 9 Connector



TCW4 CANopen

CANopen Absolute Multi-turn Modular Rotary Sensor

| Connections | | | | | | | | | | | |
|-------------|-----------------|------|---------|--------------|------|------|----|----------|------|---------|-------------------|
| | | N.C. | CAN LOW | CAN GND / 0V | N.C. | N.C. | 0V | CAN HIGH | N.C. | 5/30Vdc | GROUND |
| BB | PVC Cable + D89 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | General shielding |

| Order Information | | | | | | | | |
|----------------------------|-----------|-------------|--------------|----------|----------------------------|------------|------------------------|--------------|
| FAMILY | SHAFT Ø | SUPPLY | OUTPUT STAGE | CODE | RESOLUTION | CONNECTION | CONNECTION ORIENTATION | CABLE LENGTH |
| TCW4 | 00 | P | BB | B | 12B16 | BB | D | 020 |
| Absolute Multi-turn Sensor | Modular | 5 to 30 Vdc | CANopen | Binary | 12 bits by 16 bits of turn | PVC Cable | SUBD9 Connector | 2 meters |

| | | | | | | | | |
|-------|-------|---|----|------|----------|----|---|-----|
| TCW4_ | 00 // | P | BB | B // | 12B16 // | BB | D | 020 |
|-------|-------|---|----|------|----------|----|---|-----|

Example: **TCW4_00//PBBB//12B16//BBD020**

Order Notification

Magnets are ordered separately, refer to magnet datasheet.
Contact Regal for custom option requests.