


Incremental encoder with complementary signals and marker pulse

- ▶ Intrinsic safety design 
- ▶ IP 65, encapsulation class
- ▶ Free choice of line counts up to 2500



EEx ia 632

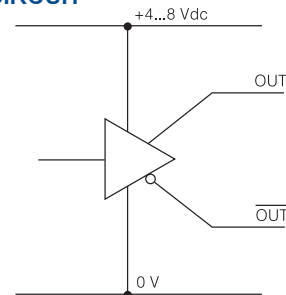
ELECTRICAL SPECIFICATION

| | |
|----------------------------------|---|
| Supply voltage +EV | 4-8V |
| | Polarity protected |
| Current consumption at no load | 15mA @ 5V Max 40mA |
| Line counts (free choice) | 1...2500 ppr |
| Measuring steps | Max 10 000/r |
| Accuracy | |
| Dividing error | ± 50° el |
| Channel separation | 90° ± 25° el |
| Outputs | TTL |
| Load max | ± 20mA |
| Cable length max | 10m Included in Ci |
| U _{high} (at 10mA load) | > +EV - 1,6V |
| U _{low} (at 10mA load) | < 0,4V |
| Frequency range | 0...100kHz |

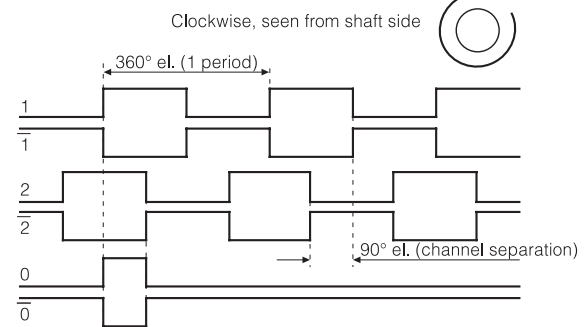
Conditions for Ex certificate

| | |
|---|-----------------|
| Certificate according to | EEx ia IIC T4 |
| Certificate number | SP Ex 98.E.602X |
| Data: | |
| U _i Max input voltage | 10,0 V |
| I _i Max input current | 400 mA |
| P _i Max input power | 1,0 W |
| C _i Internal capacitance | 120 nF |
| L _i Internal Inductance | 12 µH |
| T _{amb} Ambient temperature | -20°C ... +70°C |
| Special conditions | |
| 1. The specification according to the section "Data" above shall be considered. | |
| 2. The shaft of the encoder shall not be exposed to stress which can cause higher heat at bearing or shaft sealing than what is allowed for temperature class T4. | |

OUTPUT CIRCUIT



OUTPUT SIGNALS

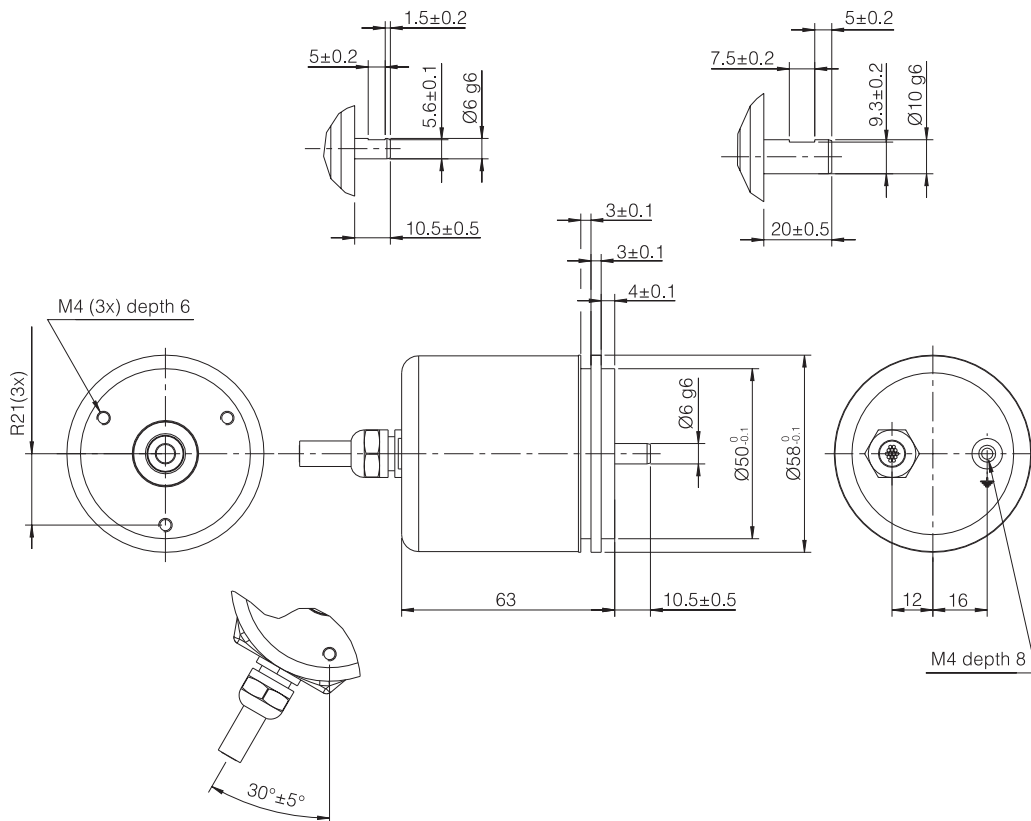


CONNECTION

| Function | Colour |
|----------|--------|
| 1 | Green |
| 1 | White |
| 2 | Black |
| 2 | Yellow |
| + E Volt | Red |
| 0 Volt | Blue |
| 0 | Brown |
| 0 | Violet |



632 EEx ia



MECHANICAL SPECIFICATION

| | |
|------------------------|---|
| Shaft, Stainless steel | Ø 6mm, 10mm |
| Moment of inertia | $2,6 \times 10^{-6} \text{ kgm}^2$ |
| Load max | |
| Radial | 60N |
| Axial | 50N |
| Speed max | 6000 rpm |
| Code disc | Unbreakable acrylic glass or glass disc |
| Temperature | |
| Operating | -25°C ... +70°C |
| Storage | -25°C ... +70°C |
| Housing | Aluminum, Nickel surface 20µm |
| Weight | Approx. 300g |
| Protection class | IP 65 according to IEC 529 |
| Vibration | <100m/s ² (50...2000 Hz) |
| Shock | <1000m/s ² (11ms) |
| Cable | 6x0,25mm ² 2x0,35mm ² PVC |

ORDERING INFORMATION

Available models

632 900170

6 mm shaft without face, Cable axial, 1 - 2500ppr

632 900171

6 mm shaft with face, Cable axial, 1 - 2500ppr

632 900172

10 mm shaft with face, Cable axial, 1 - 2500ppr

632 900175

10 mm shaft with face, Cable radial, 1 - 2500ppr