


**Incremental encoder with complementary signals and marker pulse**

- ▶ **Intrinsic safety design**
- ▶  **II 1 G EEx ia IIC T4**
- ▶ **IP 65, encapsulation class**
- ▶ **Free choice of line counts up to 2500**




ATEX 632

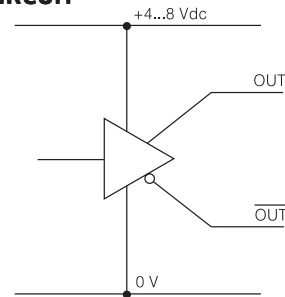
**ELECTRICAL SPECIFICATION**

Supply voltage +EV	4-8V
	Polarity protected
Current consumption at no load	15mA @ 5V Max 40mA
Line counts (free choice)	1...2500
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 <sub>high</sub> (at 10mA load)	> +EV - 1,6V
U <sub>low</sub> (at 10mA load)	< 0,4V
Frequency range	0...100kHz

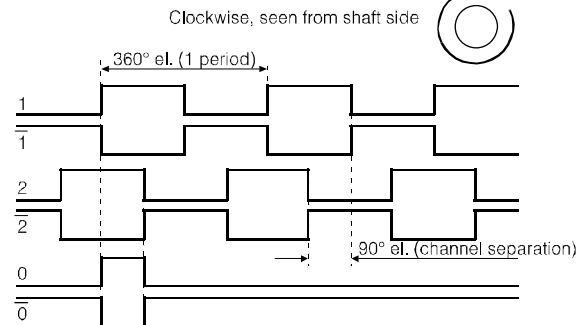
**Conditions for Ex certificate**

Certificate according to	 <b>II 1 G EEx ia IIC T4</b>
Certificate number	SP03ATEX3613X
U <sub>i</sub> Max input voltage	10,0 V
I <sub>i</sub> Max input current	400 mA
P <sub>i</sub> Max input power	1,0 W
C <sub>i</sub> Internal capacitance	120 nF
L <sub>i</sub> Internal Inductance	12 µH
T <sub>amb</sub> Ambient temperature	-20°C ... +60°C
Maximum shaft load, axial:	50N
Maximum shaft load, radial:	60N
Maximum shaft speed:	6000rpm
Replacement interval:	50000 h / 6x10 <sup>9</sup> revolutions (at 2000rpm continuous op.)
Encoder casing must be connected to ground	

**OUTPUT CIRCUIT**

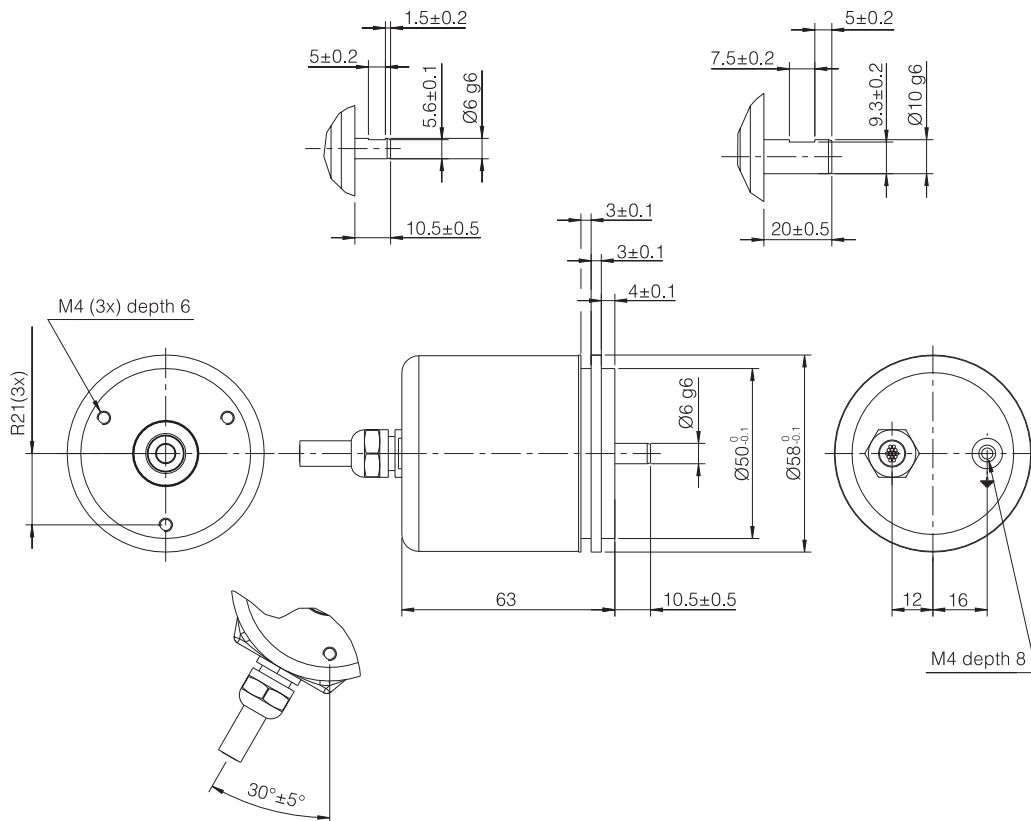


**OUTPUT SIGNALS**



**CONNECTION**

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



## 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	Standard
Temperature	
Operating	-20°C ... +60°C
Storage	-20°C ... +60°C
Housing	Aluminum, Nickel surface 20µm
Weight	Approx. 300g
Protection class	IP 65 according to IEC 60529
Vibration	<100m/s <sup>2</sup> (50...2000 Hz)
Shock	<1000m/s <sup>2</sup> (11ms)
Cable	6x0,25mm <sup>2</sup> 2x0,35mm <sup>2</sup> PVC

## ORDERING INFORMATION

### Available models

#### 632 900170

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

#### 632 900171

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

#### 632 900172

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

#### 632 900175

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