



## Incremental tandem encoder

- ▶ 6+6 short-circuit protected outputs  
1, 1̄, 2, 2̄, 0, 0̄
- ▶ IP 65, encapsulation class
- ▶ 5 Vdc or 9...30 Vdc
- ▶ Robust housing for harsh environment
- ▶ Shock and vibration protected



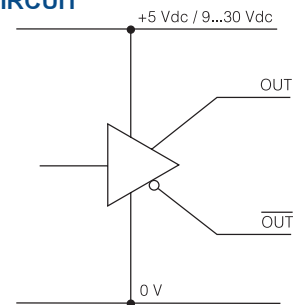
## ELECTRICAL SPECIFICATION

Supply voltage +EV	9-30V	5V ±10%
	Polarity protected	---
Current consumption at no load	65mA @ 24V Max 75mA	45mA Max 70mA
Line counts (free choice)	1...5000 ppr	
Measuring steps	Max 20 000/r	
Accuracy		
Dividing error	± 50° el	
Channel separation	90° ± 25° el	
Outputs	HTL	RS-422, TTL
	Short circuit protected	
Load max	± 40mA	± 20mA
Max cable length	200m @ 50kHz	1km (TIA/EIA-422-B)
U <sub>high</sub> (at 10mA load)	> +EV - 2,0V	> 3,0V
U <sub>low</sub> (at 10mA load)	< 1,15V	< 0,4V
Frequency range	0...200kHz	

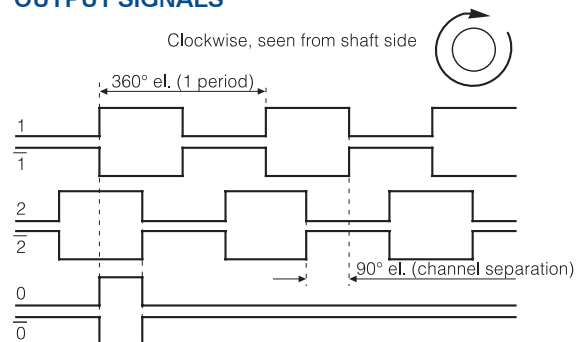
## ACCESSORIES

Mounting bracket	See datasheets for accessories
Mounting kit	
Bearing box	
Couplings	

## OUTPUT CIRCUIT

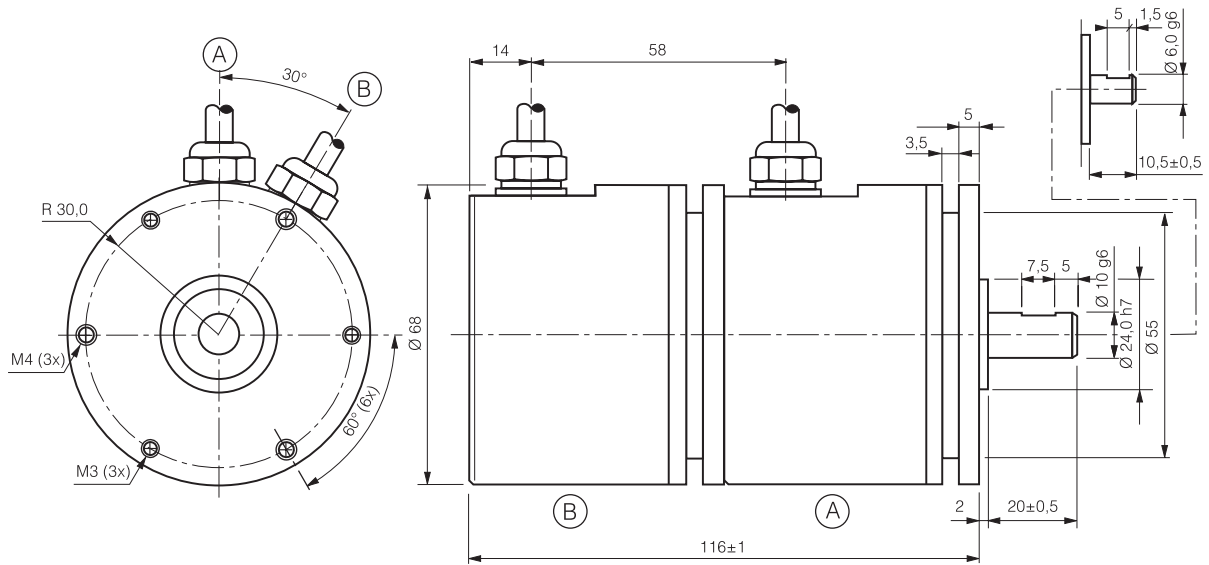


## OUTPUT SIGNALS



## CONNECTION

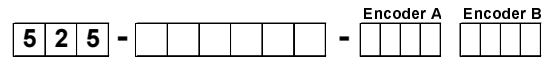
Function	Colour
1	Green
1̄	White
2	Black
2̄	Yellow
+ E Volt	Red
0 Volt	Blue
0	Brown
0̄	Violet
Case	Shield



## MECHANICAL SPECIFICATION

Shaft, Stainless steel	Ø6mm, Ø10mm
Moment of inertia	$5,5 \times 10^{-6} \text{ kgm}^2$
Load max	
Radial	60N
Axial	50N
Speed max	6000 rpm
Code disc	Unbreakable acrylic glass
Temperature	
Operating	-25°C ... +70°C
Storage	-25°C ... +70°C
Housing	Aluminum, anodized
Weight	Approx. 950g
Protection class	IP 65 according to IEC 529
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



### Option

Encoder A Encoder B  
 00 = 9-30V, HTL 9-30V, HTL  
 60 = 9-30V, HTL 5V, RS422  
 61 = 5V, RS422 9-30V, HTL  
 62 = 5V, RS422 5V, RS422  
 63 = 9-30V, HTL 9-30V, RS422

### Shaft

1 = Ø 6 mm with face  
 6 = Ø 10 mm with face

### Connection

3 = Cable, radial 1.5 m  
 9 = Cable, radial xx m

### Supply voltage

9 = See options

### Internal use

1 = 1 ... 2500 ppr  
 2 = 2501 ... 5000 ppr

### Line counts