



## Heavy Duty incremental encoder

- ▶ Extremely robust housing for harsh environments
- ▶ 6 short-circuit protected outputs  
1, 1̄, 2, 2̄, 0, 0̄
- ▶ IP 65, encapsulation class
- ▶ 5 Vdc or 9...30 Vdc
- ▶ Available with Advanced internal diagnostics, ADS



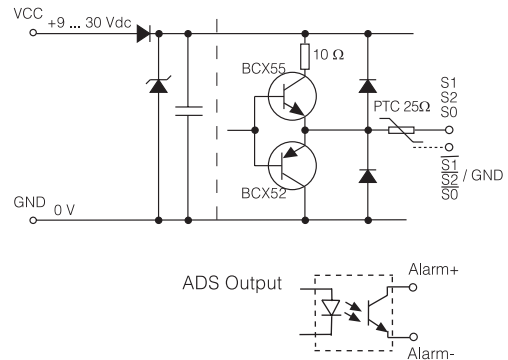
## ELECTRICAL SPECIFICATION

Supply voltage +EV	9-30V	5V ±10%
	Polarity protected	---
Current consumption at no load	60mA @ 24V Max 80mA	85mA Max 155mA
Line counts	1000, 1024, 2048, 4096ppr	
Measuring steps	4 x Line counts	
Accuracy		
Dividing error	± 50° el	
Channel separation	90° ± 25° el	
Outputs	High current HTL	RS-422
	Short circuit protected	
Load max	± 40mA	± 20mA
Max cable length	350m @ 100kHz	1km (TIA/EIA-422-B)
U <sub>high</sub> (at 40mA load)	> +EV - 4,0V	> +EV - 2,0V
U <sub>low</sub> (at 40mA load)	< 2,5V	< 1,15V
Frequency range	0...100kHz	0...200kHz
Option	Advanced Diagnostic System ADS	
Alarm output	Opto-coupler	
OK	Closed-circuit	V <sub>CE</sub> < 2V at 10mA
Error	Open-circuit	min 500ms
Voltage max	35V	
Current max	30mA	
PC communication	RS-232	Max 10m cable

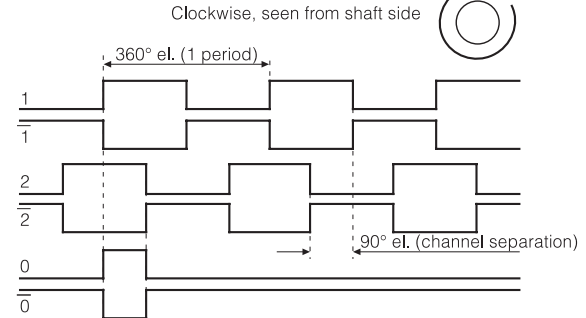
## ACCESSORIES

ADS PC software kit	Part. No. 01209084
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## OUTPUT CIRCUIT



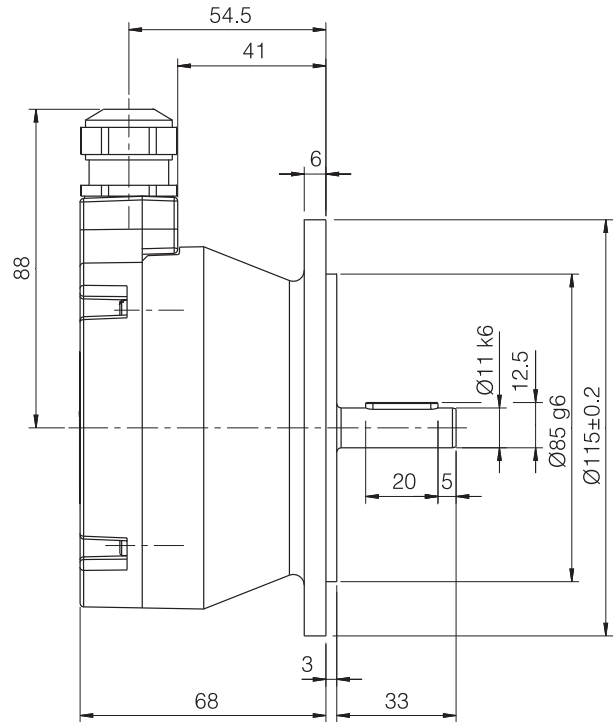
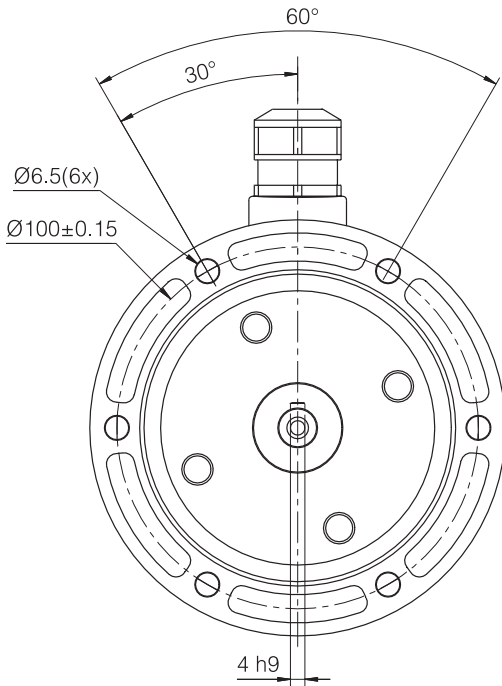
## OUTPUT SIGNALS



## CONNECTION

Function	Terminal	Colour	
+ E Volt	1	Red	
0 Volt	2	Blue	
0	3	Brown	
0 (GND *)	4	Violet	* 3 channel output
1 (GND *)	5	Green	
2 (GND *)	6	White	
2 (GND *)	7	Yellow	
2 (GND *)	8	Black	
Alarm +	9	Grey	ADS outputs
Alarm -	10	Pink	
RXD	11	Grey / Pink	
TXD	12	Red / Blue	
Case		Shield	

# 850



## MECHANICAL SPECIFICATION

Shaft, Stainless steel	Ø11mm with key nut
Moment of inertia	55 x 10 <sup>-6</sup> kgm <sup>2</sup>
Load max	
Radial	100N
Axial	100N
Speed max	4000 rpm
Code disc	Glass disc
Temperature	
Operating	-20°C ... +80°C
Storage	-25°C ... +80°C (+105°C max 1h)
Housing	Aluminum, coated
Weight	Approx. 1500g
Protection class	IP 65 according to IEC 529
Vibration	<100m/s <sup>2</sup> (50...2000 Hz)
Shock	<1000m/s <sup>2</sup> (11ms)

## ORDERING INFORMATION

8 5 0 - 0 [ ] [ ] [ ] [ ] [ ] [ ] - [ ] [ ] [ ] [ ] [ ] [ ]

### Option

0 = Standard  
1 = ADS

### Shaft

9 = Ø 11 mm with key nut

### Connection

4 = M20 cable gland, radial Ø8-11mm  
5 = M20 cable gland, radial Ø11-14mm  
3 = Cable, radial 1.5 m  
9 = Cable, radial xx m

### Supply voltage

1 = 5 Vdc (Not available with ADS)  
5 = 9...30 Vdc

### Outputs

6 = 6 channels 1, 1̄, 2, 2̄, 0, 0̄

### Line counts

1000, 1024, 2048, 4096 ppr

**Leine&Linde** ISO 9001 certified

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01-06-12 PS. Specifications can be changed without prior notice.

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