

Heavy Duty incremental encoder

- ▶ High vibration and shock resistance according to IEC 68-2-6 and IEC 68-2-27
- ▶ Electrically insulated up to 2.5kV
- ▶ IP 65, encapsulation class according to IEC 529
- ▶ 6 or 3 short-circuit protected outputs
- ▶ 9...30 Vdc, polarity protected power supply
- ▶ Available with Advanced internal diagnostics, ADS



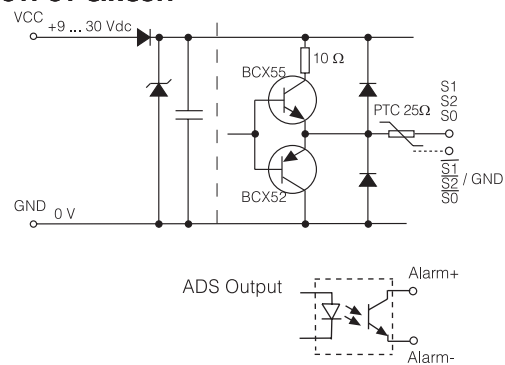
ELECTRICAL SPECIFICATION

| | | |
|----------------------------------|--|------------------------------|
| Supply voltage +EV | 9-30V | |
| | Polarity protected | |
| Current consumption at no load | 60mA @ 24V Max 80mA | |
| Line counts | 500, 1000, 1024, 2048, 2500, 3072, 4096, 5000, 6350, 10000 | |
| Measuring steps | 4 x Line counts | |
| Accuracy | 1-5000ppr | 5001-10000ppr |
| Dividing error | ± 50° el | ± 90° el |
| Channel separation | 90° ± 25° el | 90° ± 45° el |
| Outputs | HC-HTL | HTL |
| | Short circuit protected | |
| Load max | ± 40mA | ± 40mA |
| Max cable length | 350m @ 100kHz | 200m @ 50kHz |
| U _{high} (at 40mA load) | > +EV - 4,0V | > +EV - 2,0V |
| U _{low} (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 _{CE} < 2V at 10mA |
| Error | Open-circuit | min 500ms |
| Voltage max | 35V | |
| Current max | 30mA | |
| PC communication | RS-232 | Max 10m cable |

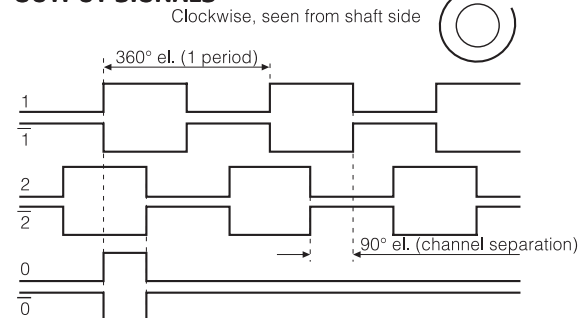
ACCESSORIES

| | |
|---------------------|--------------------|
| Torque arm | |
| M5 | Part. No. 01208013 |
| M6 | Part. No. 01208014 |
| ADS PC software kit | Part. No. 01209084 |

OUTPUT CIRCUIT



OUTPUT SIGNALS

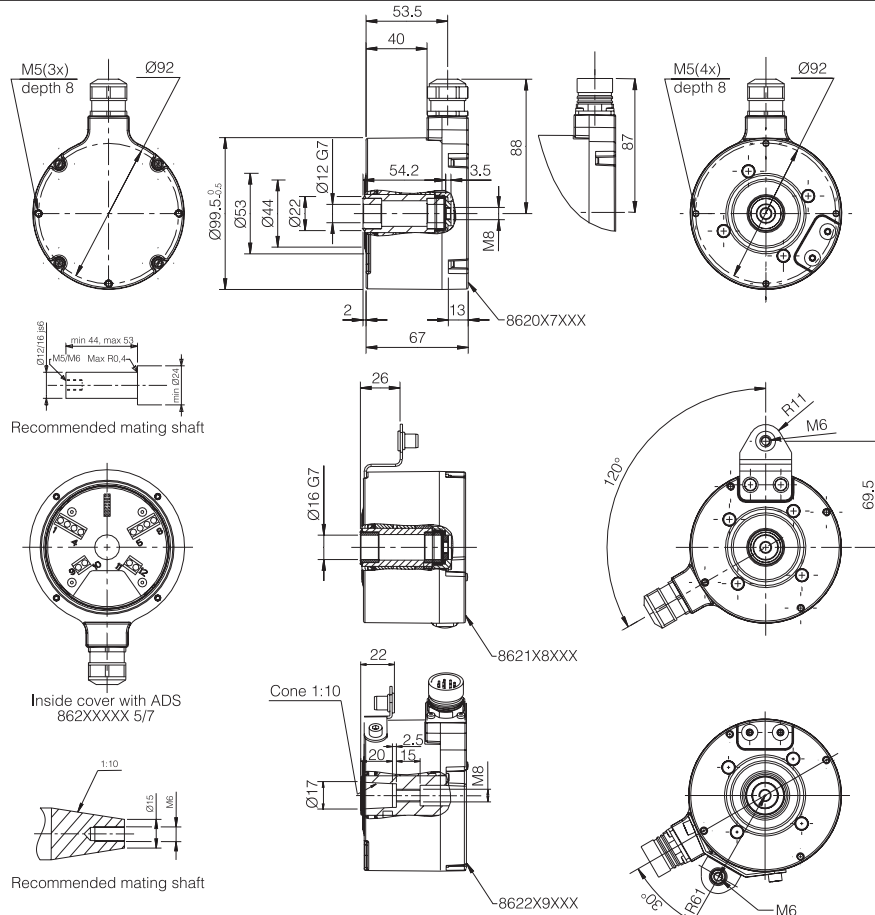


CONNECTION

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

* 3 channel output. All 0 Volt pins are internally connected on the PCB.

ADS outputs



MECHANICAL SPECIFICATION

| | | |
|-----------------------|---|-------------------------|
| Isolated Hollow-shaft | Ø12, 16mm, Stainless steel | |
| Moment of inertia | 55 x 10 ⁻⁶ kgm ² | |
| Load max | | |
| Radial | 300N | |
| Axial | 100N | |
| Speed max | 4000 rpm | |
| Code disc | Extended temp | |
| Temperature | | |
| Operating | High current HTL -40°C ... +80°C | HTL -40°C ... +100°C |
| Storage | -40°C ... +80°C | -40°C ... +100°C |
| Housing | Aluminum, coated | |
| Weight | Approx. 1300g | |
| Protection class | IP 65 according to IEC 529 | |
| Electrical isolation | <2.5kV | |
| Vibration | <100m/s ² (50...2000 Hz) IEC 68-2-6 | |
| Shock | <1000m/s ² (11ms) IEC 68-2-27 | |
| Cable | 10x0,25mm ² twisted pair PVC (Not ADS) | |
| Connector | 12 pin EML | |

ORDERING INFORMATION

8 6 2 - 0 - - - - -

Option

Mechanical

- 0 = Standard
- 1 = 120° torque bracket
- 2 = 30° torque bracket

Hollow-shaft

- 7 = Ø 12 mm, insulated up to 2.5kV
- 8 = Ø 16 mm, insulated up to 2.5kV
- 9 = Ø 17 mm, taper shaft, insulated up to 2.5kV

Connection

- 1 = Connector, radial 12 pin EML CW
- 2 = Connector, radial 12 pin EML CCW
- 3 = Cable, radial 1.5 m
- 4 = M20 cable gland, radial Ø8-11mm
- 5 = M20 cable gland, radial Ø11-14mm
- 9 = Cable, radial xx m

Supply voltage

- 2 = 9..30 Vdc (HC-HTL), overvoltage protected
- 3 = 9..30 Vdc (HTL), overvoltage protected
- 5 = 9..30 Vdc (HC- HTL)
- 6 = 9..30 Vdc (HTL)

Outputs

- 4 = 3 channels 1, 2, 0*
- 5 = 3 channels 1, 2, 0 with ADS**
- 6 = 6 channels 1, 1, 2, 2, 0, 0
- 7 = 6 channels 1, 1, 2, 2, 0, 0 with ADS*

Line counts

- 500, 1000, 1024, 2048, 2500, 3072, 4096, 5000
- 6350, 10000 ppr (Other line counts on request)

* Not available with supply voltage option -3- or -6-

** Not available with supply voltage option -3- or -6- or EML connector