

Robust incremental encoder with commutation outputs

- ▶ 12 or 16 mm hollow shaft with extra sturdy bearings
- ▶ Shock and vibration protected
- ▶ IP 65, encapsulation class
- ▶ Short-circuit protected outputs



ELECTRICAL SPECIFICATION

| | | | |
|----------------------------------|--|---------------------|--|
| Supply voltage +EV | 9-30V | | |
| | Polarity protected | | |
| Current consumption at no load | 60mA @ 24V Max 100mA | | |
| Line counts / poles | 1024 / 2, 1536 / 3, 2048 / 4, 2560 / 5 | | |
| Measuring steps | 4 x Line counts | | |
| Accuracy | A and B | P1, P2, P3 | |
| Dividing error | ± 50° el | ± 1° mech for P1 - | |
| Channel separation | 90° ± 25° el | flank to STR center | |
| Outputs | High current HTL | | |
| Load max | ± 40mA | | |
| Cable length max | 350m @ 100kHz | | |
| U _{high} (at 40mA load) | > +EV - 4,0V | | |
| U _{low} (at 40mA load) | < 2,5V | | |
| Frequency range | 0...100kHz | | |

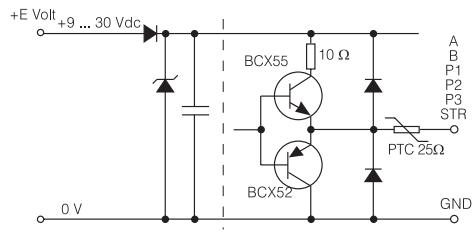
ACCESSORIES

| | |
|------------|--------------------|
| Torque arm | |
| M5 | Part. No. 01208013 |
| M6 | Part. No. 01208014 |

CONNECTION

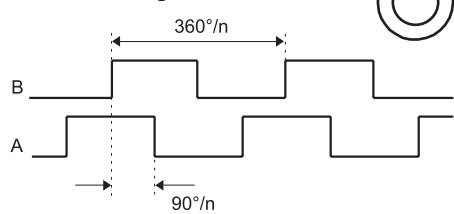
| Function | Colour |
|----------|--------|
| + E Volt | Red |
| 0 Volt | Blue |
| A | White |
| B | Black |
| P1 | Yellow |
| P2 | Green |
| P3 | Brown |
| STR | Violet |
| Case | Shield |

OUTPUT CIRCUIT

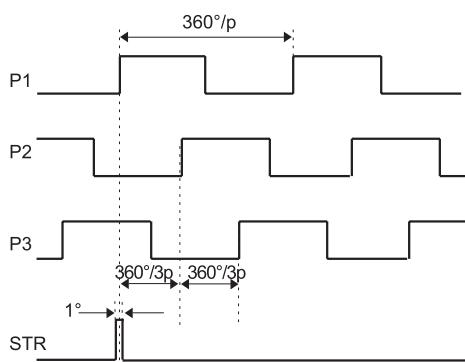


OUTPUT SIGNALS

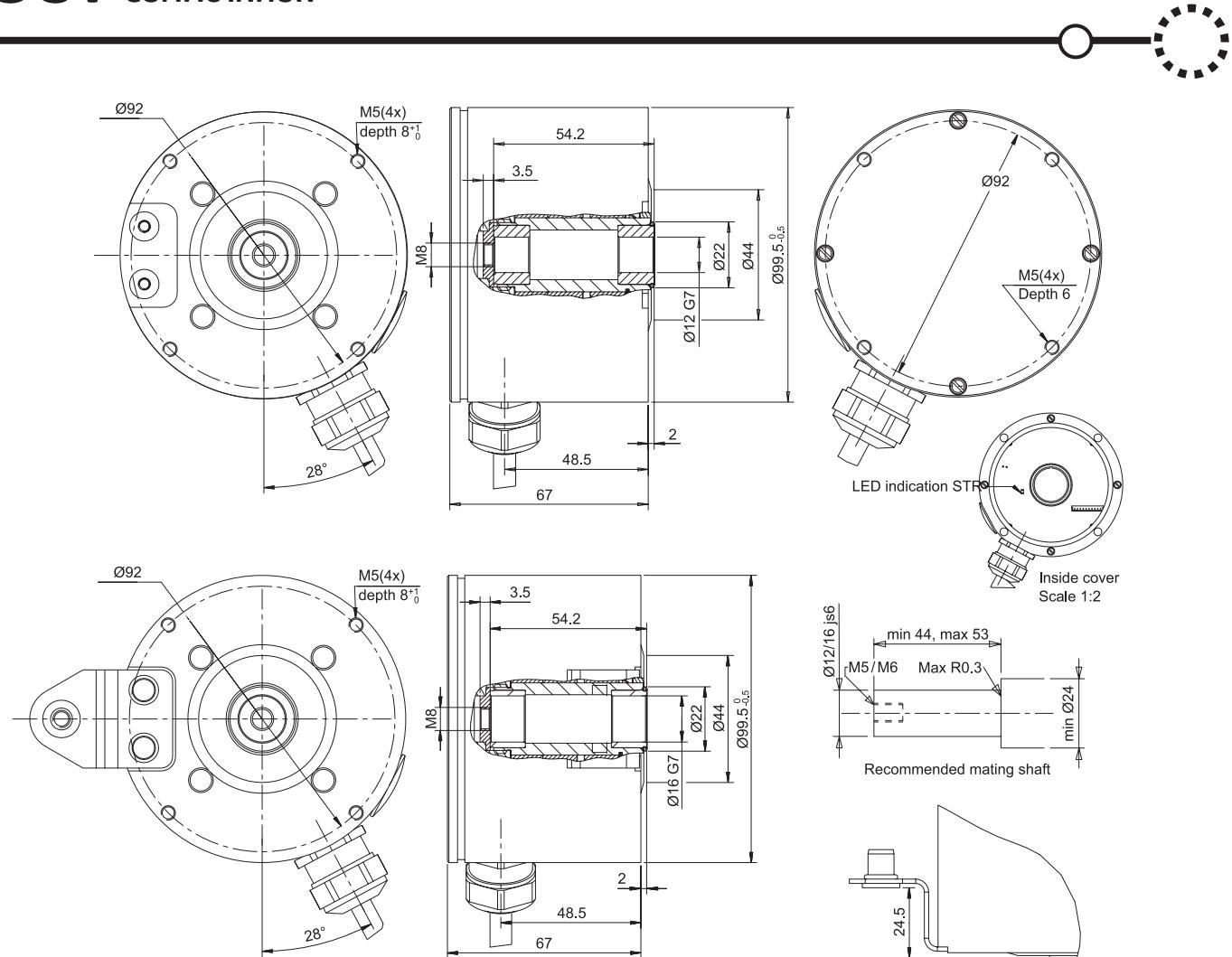
Incremental signals



Commutation signals



861 COMMUTATION



With torque arm bracket, 861900120

MECHANICAL SPECIFICATION

| | |
|-----------------------|--|
| Isolated Hollow-shaft | Ø12, 16mm, Stainless steel / PEEK |
| 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 | -20°C ... +80°C |
| Storage | -25°C ... +80°C |
| Housing | Aluminium, anodized |
| Weight | Approx. 1250g |
| Protection class | IP 65 according to IEC 529 |
| Vibration | <100m/s ² (50...2000 Hz) |
| Shock | <1000m/s ² (11ms) |
| Cable | 10x0,25mm ² , twisted pair, PVC |

ORDERING INFORMATION

8 6 1 - 9 0 0 1

Mechanical

1 = Ø12mm hollowshaft
2 = Ø16mm hollowshaft, M6 torque arm bracket

| Type | Line counts | P1, P2, P3 |
|------|-------------|------------|
| 0 = | 1024 ppr | 2 ppr |
| 1 = | 1536 ppr | 3 ppr |
| 2 = | 2048 ppr | 4 ppr |
| 3 = | 2560 ppr | 5 ppr |