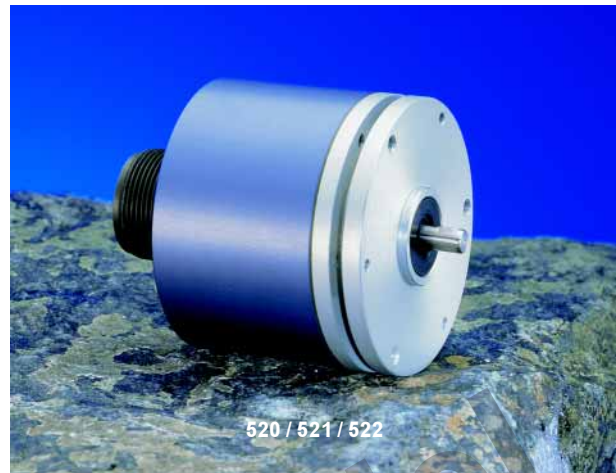


520 / 521 / 522



Incremental encoders

- ▶ 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



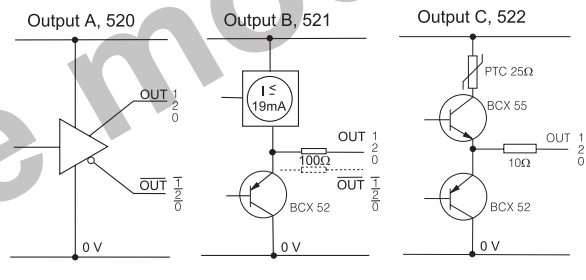
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ELECTRICAL SPECIFICATION

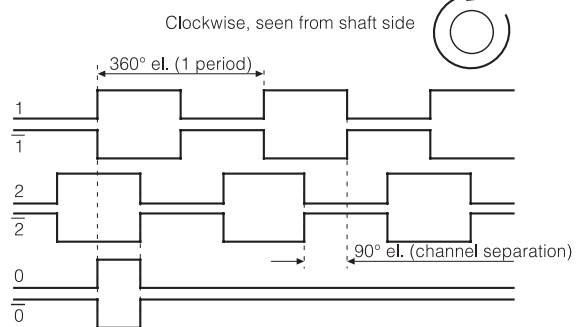
| | | |
|----------------------------------|-------------------------|---------------------|
| Model | 520- | |
| Supply voltage +EV | 9-30V | 5V ±10% |
| | Polarity protected | --- |
| Current consumption at no load | 65mA @ 24V Max 75mA | 45mA Max 70mA |
| Line counts (free choice) | 1...5000 ppr | |
| 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 _{high} (at 10mA load) | > +EV - 2,0V | > 3,0V |
| U _{low} (at 10mA load) | < 1,15V | < 0,4V |
| Frequency range | 0...200kHz | |

| | | |
|----------------------------------|---------------------------|-----------------------------------|
| Model | 521- | 522- |
| Supply voltage +EV | 9-30V | |
| | Polarity protected | |
| Current consumption at no load | 60mA @ 24V Max 90mA | 60mA @ 24V Max 90mA |
| Line counts (free choice) | 1...5000 ppr | |
| Measuring steps | Max 20 000/r | |
| Accuracy | | |
| Dividing error | ± 50° el | |
| Channel separation | 90° ± 25° el | |
| Outputs | B | C |
| | Current limited in source | Short-circuit protected in source |
| Load max | + 19mA / - 40mA | ± 40mA |
| Max cable length | --- | 200m @ 100kHz |
| U _{high} (at 40mA load) | | > +EV - 4,0V |
| U _{low} (at 40mA load) | < 6V | < 1,3V |
| Frequency range | 0...200kHz | |

OUTPUT CIRCUIT



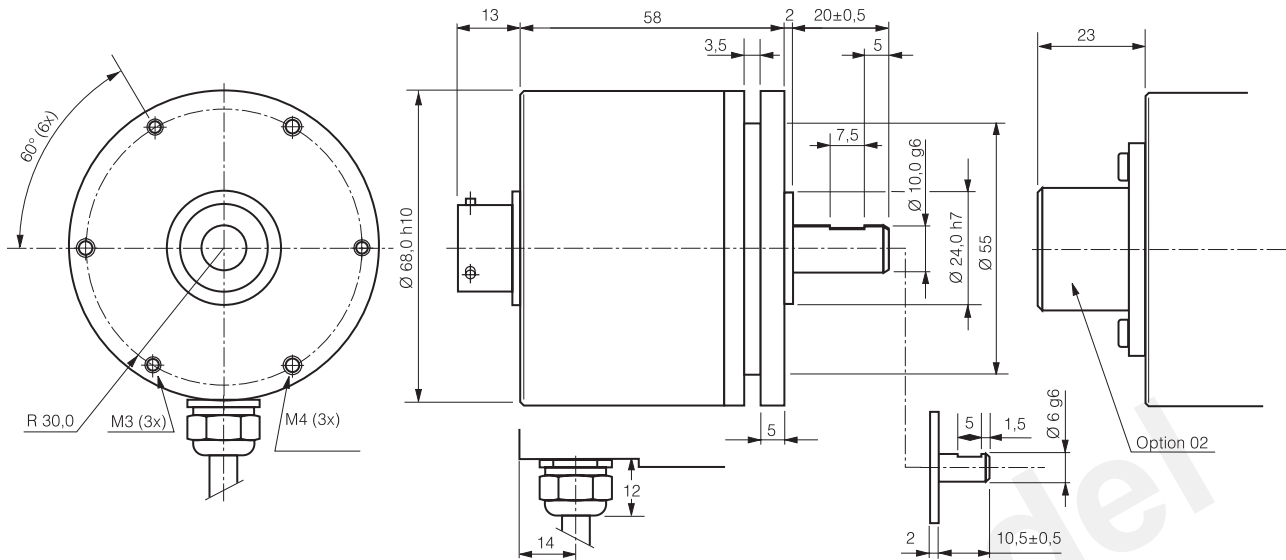
OUTPUT SIGNALS



CONNECTION

| Function | 8 pin PT | 10 pin MS | 10 pin MS | Colour | Colour |
|----------|------------|------------|-----------|------------|--------|
| | 520-, 521- | 520-, 521- | 522- | 520-, 521- | 522- |
| 1 | A | A | A | Green | Green |
| 1̄ | B | B | | White | |
| 2 | C | C | | Black | |
| 2̄ | D | D | D | Yellow | Yellow |
| + E Volt | E | E | E | Red | Red |
| 0 Volt | F | F | F | Blue | Blue |
| 0̄ | G | G | G | Brown | Brown |
| 0̄ | H | H | | Violet | |
| Case | | | | Shield | Shield |

520 / 521 / 522



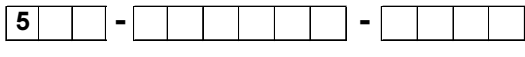
MECHANICAL SPECIFICATION

| | |
|------------------------|---|
| Shaft, Stainless steel | Ø6mm, Ø10mm |
| Moment of inertia | 2,6 x 10 ⁻⁶ kgm ² |
| Load max | |
| Radial | 60N |
| Axial | 50N |
| Speed max | 6000 rpm (12000 rpm) |
| Code disc | Unbreakable acrylic glass or glass disc |
| Temperature | |
| Operating | -25°C ... +70°C |
| Storage | -25°C ... +70°C |
| Housing | Aluminum, anodized |
| Weight | Approx. 470g |
| Protection class | IP 65 according to IEC 529 |
| Vibration | <100m/s ² (50...2000 Hz) |
| Shock | <1000m/s ² (11ms) |
| Cable | 6x0,25mm ² 2x0,35mm ² PVC |

ACCESSORIES

| | |
|-----------------------|--|
| Mating connector | |
| Options -00- | Part. No. 00201009 (8 pin PT) |
| Options -02- anged | Part. No. 00201012 (10 pin MS) Part. No. 00201016 |
| Mounting bracket | See datasheets for accessories |
| Mounting kit | |
| Bearing box | |
| Couplings | |

ORDERING INFORMATION



- Type**
 20 = Output A
 21 = Output B
 22 = Output C
- Option**
 00 = Standard, cable or 8-pin PT *
 02 = 10 pin MS connector
- Shaft**
 1 = Ø 6 mm with face
 6 = Ø 10 mm with face
- Connection**
 0 = Connector, axial
 3 = Cable, radial 1.5 m
 9 = Cable, radial xx m
- Supply voltage**
 1 = 5 Vdc (Not 521-, 522-)
 5 = 9...30 Vdc
- Internal use**
 1 = 1 ... 2500 ppr
 2 = 2501 ... 4999 ppr
 4 = 4096 or 5000 ppr glass disc
- Line counts**

* 8-pin PT connector not available for model 522-



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01-03-22 PS. Specifications can be changed without prior notice.