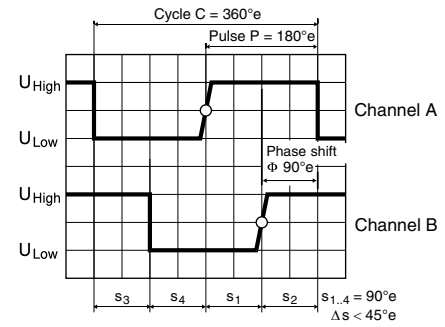
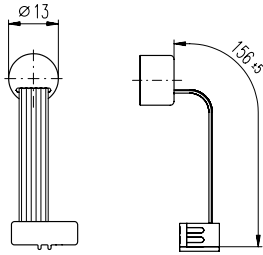


Encoder MEnc 13 16 CPT, 2 Channels



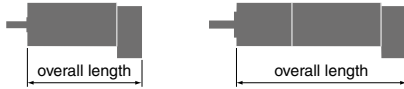
Direction of rotation cw (definition cw p. 60)

- Stock program
- Standard program
- Special program (on request)

Part Numbers

110778

| Type | |
|--------------------------------|--------|
| Counts per turn | 16 |
| Number of channels | 2 |
| Max. operating frequency (kHz) | 20 |
| Max. speed (rpm) | 75 000 |



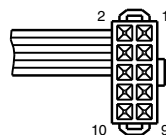
maxon Modular System

| + Motor | Page | + Gearhead | Page | Overall length [mm] / ● see Gearhead |
|---------------|---------|-----------------------|---------|--------------------------------------|
| RE 13, 0.75 W | 106/107 | | | 27.0/29.4 |
| RE 13, 0.75 W | 107 | GP 13, 0.05 - 0.15 Nm | 322 | ● |
| RE 13, 0.75 W | 107 | GP 13, 0.2 - 0.35 Nm | 323 | ● |
| RE 13, 2 W | 110/111 | | | 39.2/41.6 |
| RE 13, 2 W | 111 | GP 13, 0.05 - 0.15 Nm | 322 | ● |
| RE 13, 2 W | 111 | GP 13, 0.2 - 0.35 Nm | 323 | ● |
| RE 13, 1.5 W | 114/115 | | | 30.3/32.7 |
| RE 13, 1.5 W | 115 | GP 13, 0.05 - 0.15 Nm | 322 | ● |
| RE 13, 1.5 W | 115 | GP 13, 0.2 - 0.35 Nm | 323 | ● |
| RE 13, 3 W | 118/119 | | | 42.5/44.9 |
| RE 13, 3 W | 119 | GP 13, 0.05 - 0.15 Nm | 322 | ● |
| RE 13, 3 W | 119 | GP 13, 0.2 - 0.35 Nm | 323 | ● |
| RE 16, 3.2 W | 122 | | | 46.5 |
| RE 16, 3.2 W | 122 | GP 16, 0.1 - 0.6 Nm | 328/329 | ● |
| RE 16, 3.2 W | 122 | GP 16 S | 369/370 | ● |
| RE 16, 4.5 W | 124 | | | 49.7 |
| RE 16, 4.5 W | 124 | GP 16, 0.1 - 0.6 Nm | 328/329 | ● |
| RE 16, 4.5 W | 124 | GP 16 S | 369/370 | ● |
| A-max 16 | 140/142 | | | 33.5 |
| A-max 16 | 140/142 | GS 16, 0.01 - 0.03 Nm | 324/325 | ● |
| A-max 16 | 140/142 | GS 16, 0.06 - 0.1 Nm | 326/327 | ● |
| A-max 16 | 140/142 | GP 16, 0.1 - 0.3 Nm | 328 | ● |
| A-max 16 | 140/142 | GP 16 S | 369/370 | ● |
| A-max 19 | 144/146 | | | 36.4/39.0 |
| A-max 19 | 144/146 | GP 19, 0.1 - 0.3 Nm | 330 | ● |
| A-max 19 | 144/146 | GP 22, 0.5 - 2.0 Nm | 333/335 | ● |
| A-max 19 | 144/146 | GS 24, 0.1 Nm | 339 | ● |
| A-max 19 | 144/146 | GP 22 S | 372/373 | ● |

Technical Data

| | |
|--|-------------------------|
| Supply voltage V_{CC} | 3.8 - 24 V |
| Typical current draw | 6 mA |
| Output signal $V_{CC} = 5$ VDC | TTL compatible |
| Phase shift Φ | $90^\circ \pm 45^\circ$ |
| Power input at $V_{CC} = 5$ VDC | max. 8 mA |
| Inertia of the magnetic disc | 0.07 gcm ² |
| Operating temperature range | -20...+80 °C |
| Open collector output with integrated pull-up resistance | 10 k Ω \pm 20% |

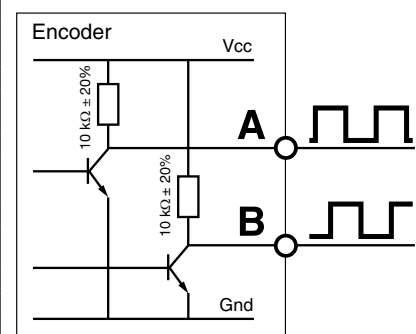
Pin Allocation



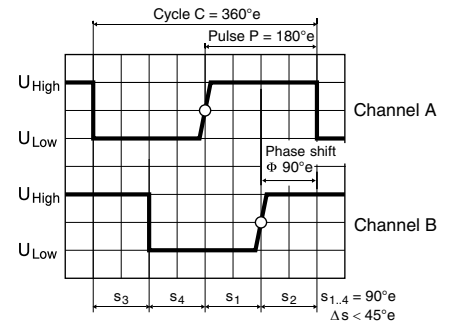
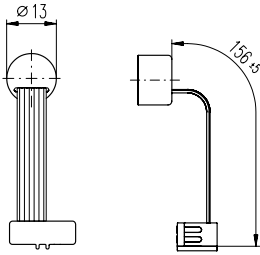
- 1 Motor +
- 2 V_{CC}
- 3 Channel A
- 4 Channel B
- 5 GND
- 6 Motor -

Pin type
DIN 41651/EN 60603-13
(Type 3M 89110-0101 HA)
flat band cable AWG 28

Connection example



Encoder MEnc 13 16 CPT, 2 Channels



Direction of rotation cw (definition cw p. 60)

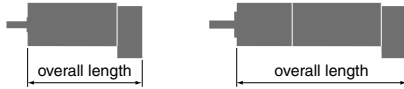
- Stock program
- Standard program
- Special program (on request)

Part Numbers

110778

Type

| | |
|--------------------------------|-------|
| Counts per turn | 16 |
| Number of channels | 2 |
| Max. operating frequency (kHz) | 20 |
| Max. speed (rpm) | 75000 |



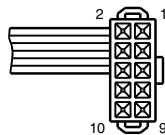
maxon Modular System

| + Motor | Page | + Gearhead | Page | Overall length [mm] / ● see Gearhead |
|----------|---------|----------------------|---------|--------------------------------------|
| A-max 22 | 148/150 | | | 39.0 |
| A-max 22 | 148/150 | GP 22, 0.1 - 0.6 Nm | 331/332 | ● |
| A-max 22 | 148/150 | GP 22, 0.5 - 2.0 Nm | 333/335 | ● |
| A-max 22 | 148/150 | GS 24, 0.1 Nm | 339 | ● |
| A-max 22 | 148/150 | GP 22 S | 372/373 | ● |
| A-max 26 | 152-158 | | | 51.8 |
| A-max 26 | 152-158 | GP 26, 0.75 - 4.5 Nm | 340 | ● |
| A-max 26 | 152-158 | GS 30, 0.07 - 0.2 Nm | 341 | ● |
| A-max 26 | 152-158 | GP 32, 0.75 - 4.5 Nm | 342 | ● |
| A-max 26 | 152-158 | GP 32, 0.75 - 6.0 Nm | 343 | ● |
| A-max 26 | 152-158 | GS 38, 0.1 - 0.6 Nm | 353 | ● |
| A-max 26 | 152-158 | GP 32 S | 374-378 | ● |

Technical Data

| | |
|--|-----------------------------|
| Supply voltage V_{CC} | 3.8 - 24 V |
| Typical current draw | 6 mA |
| Output signal $V_{CC} = 5$ VDC | TTL compatible |
| Phase shift Φ | $90^\circ e \pm 45^\circ e$ |
| Power input at $V_{CC} = 5$ VDC | max. 8 mA |
| Inertia of the magnetic disc | 0.07 gcm ² |
| Operating temperature range | -20...+80 °C |
| Open collector output with integrated pull-up resistance | 10 kΩ \pm 20% |

Pin Allocation



- 1 Motor +
- 2 V_{CC}
- 3 Channel A
- 4 Channel B
- 5 GND
- 6 Motor -

Pin type
DIN 41651/EN 60603-13
(Type 3M 89110-0101 HA)
flat band cable AWG 28

Connection example

