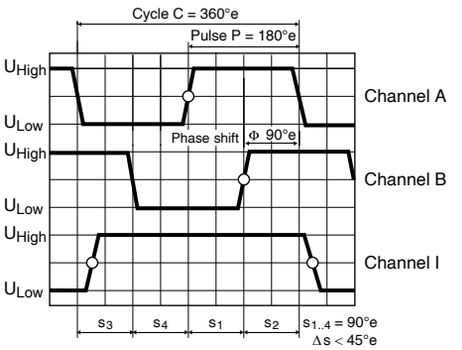
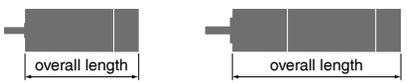
Encoder MR Type M, 32 CPT, 2/3 channels



Direction of rotation cw (definition cw p. 78)

Stock program
Standard program
Special program (on request)

Part Numbers	201935	201938
Type		
Counts per turn	32	32
Number of channels	2	3
Max. operating frequency (kHz)	8	8
Max. speed (rpm)	15000	15000



maxon Modular System

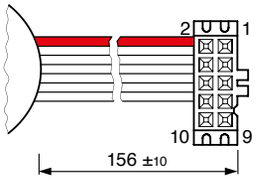
+ Motor	Page	+ Gearhead	Page	∅ Enc [mm]	Overall length [mm] / ● see Gearhead	
RE 16, 2 W	139			16	28.0	28.0
RE 16, 2 W	139	GP 16, 0.1 - 0.6 Nm	379/380	16	●	●
RE 16, 2 W	139	GP 16 S	421/422	16	●	●
RE 16, 3.2 W	141			16	45.4	45.4
RE 16, 3.2 W	141	GP 16, 0.1 - 0.6 Nm	379/380	16	●	●
RE 16, 3.2 W	141	GP 16 S	421/422	16	●	●
RE 16, 4.5 W	143			16	48.4	48.4
RE 16, 4.5 W	143	GP 16, 0.1 - 0.6 Nm	379/380	16	●	●
RE 16, 4.5 W	143	GP 16 S	421/422	16	●	●
A-max 16	160/162			16	30.4	30.4
A-max 16	160/162	GS 16, 0.01 - 0.1 Nm	375-378	16	●	●
A-max 16	160/162	GP 16, 0.1 - 0.3 Nm	379	16	●	●
A-max 16	160/162	GP 16 S	421/422	16	●	●
A-max 19, 1.5 W	164			19	34.0	34.0
A-max 19, 1.5 W	164	GP 19, 0.1 - 0.3 Nm	381	19	●	●
A-max 19, 1.5 W	164	GP 22, 0.5 - 2.0 Nm	385	19	●	●
A-max 19, 1.5 W	164	GS 24, 0.1 Nm	389	19	●	●
A-max 19, 1.5 W	164	GP 22 S	424/425	19	●	●
A-max 19, 2.5 W	166			19	35.8	35.8
A-max 19, 2.5 W	166	GP 19, 0.1 - 0.3 Nm	381	19	●	●
A-max 19, 2.5 W	166	GP 22, 0.5 - 2.0 Nm	385	19	●	●
A-max 19, 2.5 W	166	GS 24, 0.1 Nm	389	19	●	●
A-max 19, 2.5 W	166	GP 22 S	424/425	19	●	●
A-max 22	168/170			22	36.9	36.9
A-max 22	168/170	GP 22, 0.1 - 0.3 Nm	382	22	●	●
A-max 22	168/170	GP 22, 0.5 - 2.0 Nm	382-385	22	●	●
A-max 22	168/170	GS 24, 0.1 Nm	389	22	●	●
A-max 22	168/170	GP 22 S	424/425	22	●	●

Technical Data

Supply voltage V_{CC}	2.7 – 5.5 V
Typical current draw 2 channel	6 mA
Typical current draw 3 channel	9 mA
Output signal V_{CC} = 5 VDC	TTL compatible
Phase shift Φ	90°e ± 45°e
Operating temperature range	-40...+85 °C
Moment of inertia of code wheel	≤ 0.09 gcm²
Output current per channel	max. 5 mA

The index signal I is not synchronized with channel A or B.
The length of the index signal can last more than one cycle.

Pin Allocation



1 Motor +
2 V_{CC}
3 Channel A
4 Channel B
5 GND
6 Motor –
7* Channel I (Index)

DIN Connector 41651/
EN 60603-13
flat band cable AWG 28
*version with 3 channels

Connection example