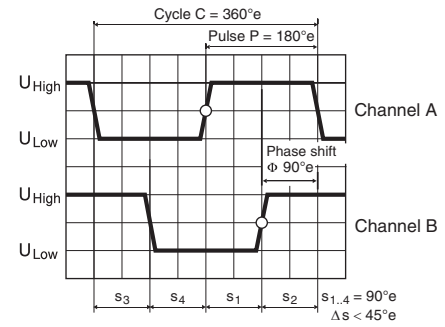
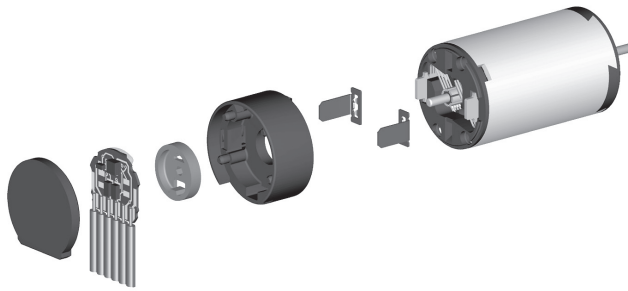


# Encoder MR Type S, 16 CPT, 2 Channels



Direction of rotation cw (definition cw p. 150)

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

## Part Numbers

201933 224702

Type		
Counts per turn	16	16
Number of channels	2	2
Max. operating frequency (kHz)	8	8
Max. speed (rpm)	30000	30000



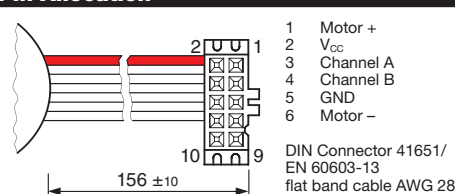
## maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / ● see Gearhead
RE 10, 0.75 W	155					22.8
RE 10, 0.75 W	155	GP 10, 0.005 - 0.15 Nm	313/314			●
RE 10, 1.5 W	157					30.4
RE 10, 1.5 W	157	GP 10, 0.005 - 0.15 Nm	313/314			●
RE 13, 0.75 W	160					26.3
RE 13, 0.75 W	161					28.7
RE 13, 0.75 W	161	GP 13, 0.05 - 0.15 Nm	316			●
RE 13, 0.75 W	161	GP 13, 0.2 - 0.35 Nm	317			●
RE 13, 2 W	164					38.5
RE 13, 2 W	165					40.9
RE 13, 2 W	165	GP 13, 0.05 - 0.15 Nm	316			●
RE 13, 2 W	165	GP 13, 0.2 - 0.35 Nm	317			●
RE 13, 1.5 W	168					28.4
RE 13, 1.5 W	169					30.8
RE 13, 1.5 W	169	GP 13, 0.05 - 0.15 Nm	316			●
RE 13, 1.5 W	169	GP 13, 0.2 - 0.35 Nm	317			●
RE 13, 3 W	172					40.6
RE 13, 3 W	173					43.0
RE 13, 3 W	173	GP 13, 0.05 - 0.15 Nm	316			●
RE 13, 3 W	173	GP 13, 0.2 - 0.35 Nm	317			●
A-max 12, 0.5 W	192					25.3
A-max 12, 0.5 W	192	GP 10, 0.01 - 0.15 Nm	314			●
A-max 12, 0.5 W	192	GS 12, 0.01 - 0.03 Nm	315			●
A-max 12, 0.5 W	192	GP 13, 0.05 - 0.15 Nm	316			●
A-max 12, 0.5 W	192	GP 13, 0.2 - 0.35 Nm	317			●
RE-max 13, 0.75 W	220					25.2
RE-max 13, 0.75 W	220	GP 13, 0.05 - 0.15 Nm	316			●
RE-max 13, 0.75 W	220	GP 13, 0.2 - 0.35 Nm	317			●
RE-max 13, 2 W	222					36.2
RE-max 13, 2 W	222	GP 13, 0.05 - 0.15 Nm	316			●
RE-max 13, 2 W	222	GP 13, 0.2 - 0.35 Nm	317			●

## Technical Data

Supply voltage $V_{CC}$	2.7 - 5.5 V
Output signal $V_{CC} = 5$ VDC	TTL compatible
Phase shift $\Phi$	$90^\circ e \pm 45^\circ e$
Operating temperature range	-25...+85 °C
Moment of inertia of code wheel	$\leq 0.005$ gcm <sup>2</sup>
Output current per channel	max. 5 mA

## Pin Allocation



## Connection example

