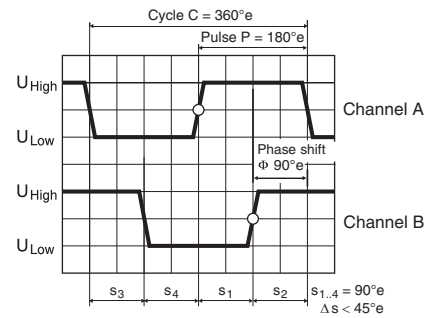
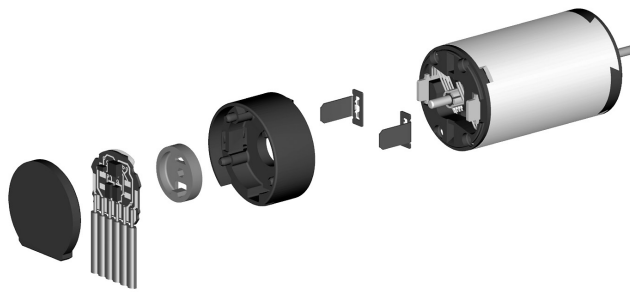


# Encoder MR Type S, 16 Counts per turn, 2 Channels



Direction of rotation cw (definition cw p. 48)

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

## Order Number

201933 224702

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



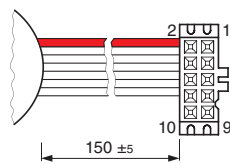
## maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / • see Gearhead
RE 10, 0.75 W	53					22.8
RE 10, 0.75 W	53	GP 10, 0.005 - 0.15 Nm	204/205			•
RE 10, 1.5 W	55					30.4
RE 10, 1.5 W	55	GP 10, 0.005 - 0.15 Nm	204/205			•
RE 13, 0.75 W	58					26.3
RE 13, 0.75 W	59					28.7
RE 13, 0.75 W	59	GP 13, 0.05 - 0.15 Nm	207			•
RE 13, 0.75 W	59	GP 13, 0.2 - 0.35 Nm	208			•
RE 13, 2 W	62					38.5
RE 13, 2 W	63					40.9
RE 13, 2 W	63	GP 13, 0.05 - 0.15 Nm	207			•
RE 13, 2 W	63	GP 13, 0.2 - 0.35 Nm	208			•
RE 13, 1.5 W	66					28.4
RE 13, 1.5 W	67					30.8
RE 13, 1.5 W	67	GP 13, 0.05 - 0.15 Nm	207			•
RE 13, 1.5 W	67	GP 13, 0.2 - 0.35 Nm	208			•
RE 13, 3 W	70					40.6
RE 13, 3 W	71					43.0
RE 13, 3 W	71	GP 13, 0.05 - 0.15 Nm	207			•
RE 13, 3 W	71	GP 13, 0.2 - 0.35 Nm	208			•
A-max 12, 0.5 W	88					25.3
A-max 12, 0.5 W	88	GP 10, 0.01 - 0.15 Nm	205			•
A-max 12, 0.5 W	88	GS 12, 0.01 - 0.03 Nm	206			•
A-max 12, 0.5 W	88	GP 13, 0.05 - 0.15 Nm	207			•
A-max 12, 0.5 W	88	GP 13, 0.2 - 0.35 Nm	208			•
RE-max 13, 0.75 W	116					25.2
RE-max 13, 0.75 W	116	GP 13, 0.05 - 0.15 Nm	207			•
RE-max 13, 0.75 W	116	GP 13, 0.2 - 0.35 Nm	208			•
RE-max 13, 2 W	118					36.2
RE-max 13, 2 W	118	GP 13, 0.05 - 0.15 Nm	207			•
RE-max 13, 2 W	118	GP 13, 0.2 - 0.35 Nm	208			•

## Technical Data

Supply voltage $V_{CC}$	2.7 - 5.5 V
Output signal $V_{CC} = 5$ VDC	TTL compatible
Phase shift $\Phi$	$90^\circ \pm 45^\circ$
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



- 1 Motor +
  - 2  $V_{CC}$
  - 3 Channel A
  - 4 Channel B
  - 5 GND
  - 6 Motor -
- DIN Connector 41651  
flat band cable AWG 28

## Connection example

