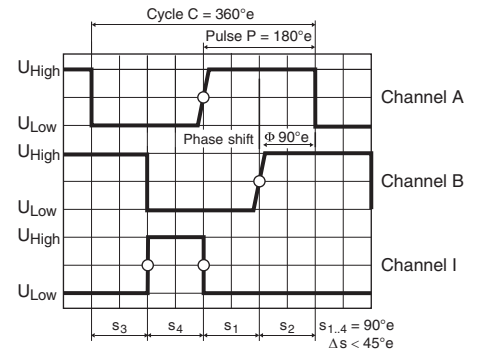
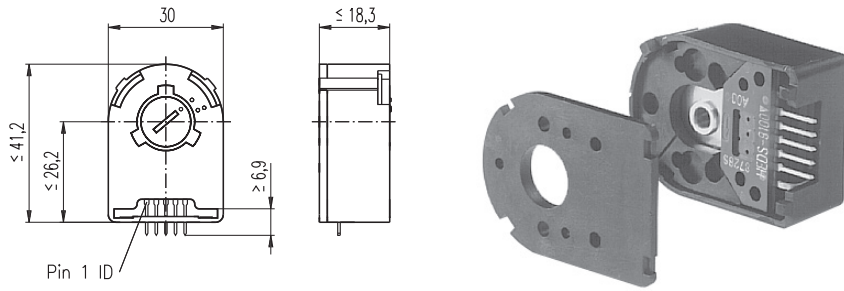


# Encoder HEDS 5540 500 CPT, 3 Channels



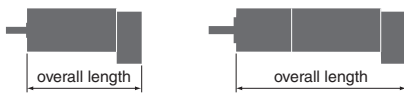
Direction of rotation cw (definition cw p. 150)

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

## Part Numbers

110511	110513	110515
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Type	110511	110513	110515
Counts per turn	500	500	500
Number of channels	3	3	3
Max. operating frequency (kHz)	100	100	100
Max. speed (rpm)	12000	12000	12000
Shaft diameter (mm)	3	4	6



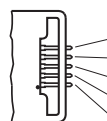
## maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / ● see Gearhead
RE 25	179/181					75.3
RE 25	179/181	GP 26, 0.75 - 2.0 Nm	336			●
RE 25	179/181	GP 32, 0.75 - 6.0 Nm	338-342			●
RE 25	179/181	KD 32, 1.0 - 4.5 Nm	347			●
RE 25	179/181	GP 32 S	370-372			●
RE 25, 20 W	181			AB 28	446	105.8
RE 25, 20 W	181	GP 26, 0.75 - 2.0 Nm	336	AB 28	446	●
RE 25, 20 W	181	GP 32, 0.75 - 6.0 Nm	338-342	AB 28	446	●
RE 25, 20 W	181	KD 32, 1.0 - 4.5 Nm	347	AB 28	446	●
RE 25, 20 W	181	GP 32 S	370-372	AB 28	446	●
RE 30, 15 W	182					88.8
RE 30, 15 W	182	GP 32, 0.75 - 4.5 Nm	340			●
RE 30, 60 W	183					88.8
RE 30, 60 W	183	GP 32, 0.75 - 6.0 Nm	338-344			●
RE 30, 60 W	183	KD 32, 1.0 - 4.5 Nm	347			●
RE 30, 60 W	183	GP 32 S	370-372			●
RE 35, 90 W	184					91.7
RE 35, 90 W	184	GP 32, 0.75 - 8.0 Nm	338-345			●
RE 35, 90 W	184	GP 42, 3.0 - 15 Nm	349			●
RE 35, 90 W	184	GP 32 S	370-372			●
RE 35, 90 W	184			AB 28	446	124.3
RE 35, 90 W	184	GP 32, 0.75 - 8.0 Nm	338-345	AB 28	446	●
RE 35, 90 W	184	GP 42, 3.0 - 15 Nm	349	AB 28	446	●
RE 35, 90 W	184	GP 32 S	370-372	AB 28	446	●
RE 40, 25 W	185					91.7
RE 40, 150 W	186					91.7
RE 40, 150 W	186	GP 42, 3.0 - 15 Nm	349			●
RE 40, 150 W	186	GP 52, 4.0 - 30 Nm	354			●
RE 40, 150 W	186			AB 28	446	124.3
RE 40, 150 W	186	GP 42, 3.0 - 15 Nm	349	AB 28	446	●
RE 40, 150 W	186	GP 52, 4.0 - 30 Nm	354	AB 28	446	●

## Technical Data

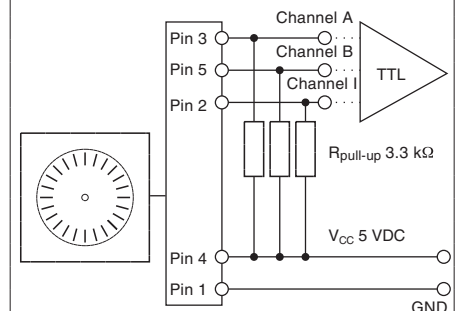
Supply voltage $V_{CC}$	$5 V \pm 10\%$
Output signal	TTL compatible
Phase shift $\Phi$	$90^\circ e \pm 45^\circ e$
Signal rise time (typically, at $C_L = 25 \text{ pF}$ , $R_L = 2.7 \text{ k}\Omega$ , $25^\circ \text{C}$ )	180 ns
Signal fall time (typically, at $C_L = 25 \text{ pF}$ , $R_L = 2.7 \text{ k}\Omega$ , $25^\circ \text{C}$ )	40 ns
Index pulse width (nominal)	$90^\circ e$
Operating temperature range	$-40 \dots +100^\circ \text{C}$
Moment of inertia of code wheel	$\leq 0.6 \text{ gcm}^2$
Max. angular acceleration	$250000 \text{ rad s}^{-2}$
Output current per channel	min. -1 mA, max. 5 mA

## Pin Allocation



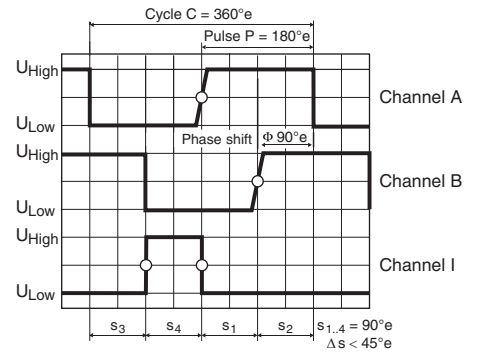
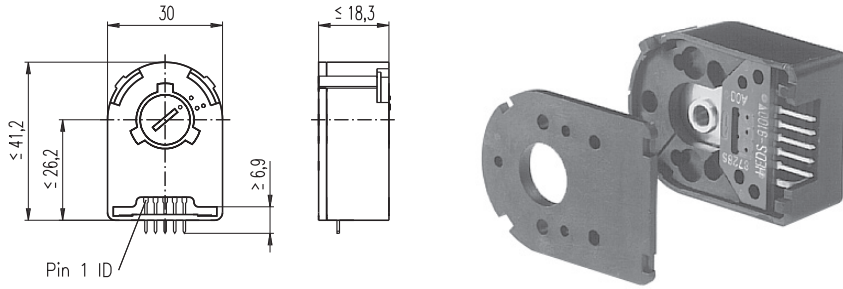
Encoder	Description	Pin no. from 3409.506
Pin 5	Channel B	1
Pin 4	$V_{CC}$	2
Pin 3	Channel A	3
Pin 2	Channel I	4
Pin 1	GND	5

## Connection example



Ambient temperature range  $\theta_U = 25^\circ \text{C}$

# Encoder HEDS 5540 500 CPT, 3 Channels



Direction of rotation cw (definition cw p. 150)

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

## Part Numbers

110511	110513	110515	110517
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Type	110511	110513	110515	110517
Counts per turn	500	500	500	500
Number of channels	3	3	3	3
Max. operating frequency (kHz)	100	100	100	100
Max. speed (rpm)	12000	12000	12000	12000
Shaft diameter (mm)	3	4	6	8

## maxon Modular System

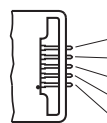
+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / ● see Gearhead
RE 25, 20 W	180					63.8
RE 25, 20 W	180	GP 26, 0.75 - 2.0 Nm	336			●
RE 25, 20 W	180	GP 32, 0.75 - 4.5 Nm	338			●
RE 25, 20 W	180	GP 32, 0.75 - 6.0 Nm	339/342			●
RE 25, 20 W	180	KD 32, 1.0 - 4.5 Nm	347			●
RE 25, 20 W	180	GP 32 S	370-372			●
RE 25, 20 W	180			AB 28	446	94.3
RE 25, 20 W	180	GP 22, 0.5 Nm	329			●
RE 25, 20 W	180	GP 26, 0.75 - 2.0 Nm	336	AB 28	446	●
RE 25, 20 W	180	GP 32, 0.75 - 4.5 Nm	338	AB 28	446	●
RE 25, 20 W	180	GP 32, 0.75 - 6.0 Nm	339/342	AB 28	446	●
RE 25, 20 W	180	KD 32, 1.0 - 4.5 Nm	347	AB 28	446	●
RE 25, 20 W	180	GP 32 S	370-372	AB 28	446	●
RE 50, 200 W	187					128.7
RE 50, 200 W	187	GP 52, 4 - 30 Nm	355			●
RE 50, 200 W	187	GP 62, 8 - 50 Nm	356			●
RE 65, 250 W	188					157.3
RE 65, 250 W	188	GP 81, 20 - 120 Nm	357			●
A-max 26	206-212					63.1
A-max 26	206-212	GP 26, 0.75 - 4.5 Nm	336			●
A-max 26	206-212	GS 30, 0.07 - 0.2 Nm	337			●
A-max 26	206-212	GP 32, 0.75 - 4.5 Nm	338			●
A-max 26	206-212	GP 32, 0.75 - 6.0 Nm	339/343			●
A-max 26	206-212	GS 38, 0.1 - 0.6 Nm	348			●
A-max 26	206-212	GP 32 S	370-372			●
A-max 32	214/216					82.3
A-max 32	214/216	GP 32, 0.75 - 6.0 Nm	338-343			●
A-max 32	214/216	GS 38, 0.1 - 0.6 Nm	348			●
A-max 32	214/216	GP 32 S	370-372			●
EC 32, 80 W	251					78.4
EC 32, 80 W	251	GP 32, 0.75 - 6.0 Nm	338-344			●
EC 32, 80 W	251	GP 32 S	370-372			●
EC 40, 170 W	252					103.4
EC 40, 170 W	252	GP 42, 3.0 - 15 Nm	349			●
EC 40, 170 W	252	GP 52, 4.0 - 30 Nm	354			●

## Technical Data

Supply voltage $V_{CC}$	$5 V \pm 10\%$
Output signal	TTL compatible
Phase shift $\Phi$	$90^\circ e \pm 45^\circ e$
Signal rise time (typically, at $C_L = 25 \text{ pF}$ , $R_L = 2.7 \text{ k}\Omega$ , $25^\circ \text{C}$ )	180 ns
Signal fall time (typically, at $C_L = 25 \text{ pF}$ , $R_L = 2.7 \text{ k}\Omega$ , $25^\circ \text{C}$ )	40 ns
Index pulse width	$90^\circ e$
Operating temperature range	$-40 \dots +100^\circ \text{C}$
Moment of inertia of code wheel	$\leq 0.6 \text{ gcm}^2$
Max. angular acceleration	$250\,000 \text{ rad s}^{-2}$
Output current per channel	min. -1 mA, max. 5 mA

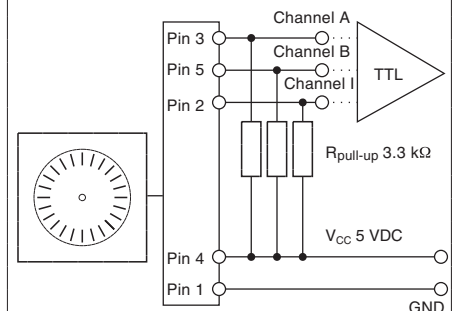
The index signal I is synchronized with channel A or B.

## Pin Allocation



Encoder	Description	Pin no. from 3409.506
Pin 5	Channel B	1
Pin 4	$V_{CC}$	2
Pin 3	Channel A	3
Pin 2	Channel I	4
Pin 1	GND	5

## Connection example



Ambient temperature range  $\vartheta_U = 25^\circ \text{C}$