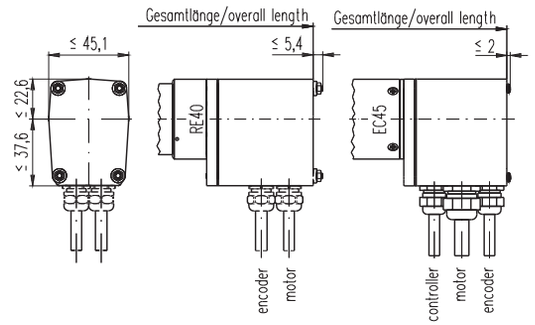
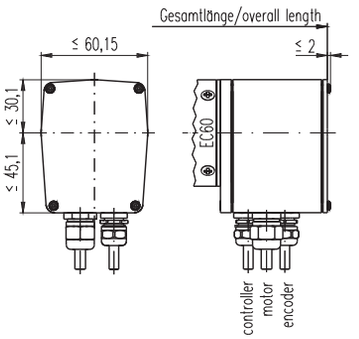
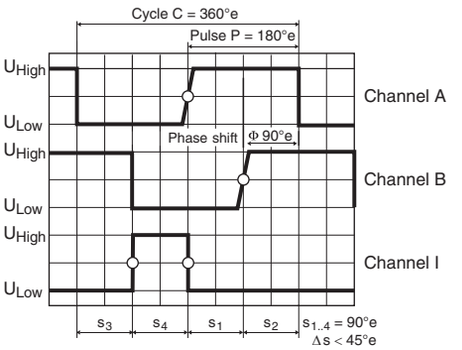
Encoder HEDL 9140 500 CPT, 3 Channels, with Line Driver RS 422







Direction of rotation cw (definition cw p. 150)

Stock program
Standard program
Special program (on request)

Part Numbers
137959

Type	
Counts per turn	500
Number of channels	3
Max. operating frequency (kHz)	100
Max. speed (rpm)	12000

maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / ● see Gearhead
RE 40, 150 W	186					125.1
RE 40, 150 W	186	GP 42, 3 - 15 Nm	349			●
RE 40, 150 W	186	GP 52, 4 - 30 Nm	354			●
RE 40, 150 W	186			AB 28	447	135.6
RE 40, 150 W	186	GP 42, 3 - 15 Nm	349	AB 28	447	●
RE 40, 150 W	186	GP 52, 4 - 30 Nm	354	AB 28	447	●
EC 45, 150 W	253					126.8
EC 45, 150 W	253	GP 42, 3 - 15 Nm	349			●
EC 45, 150 W	253	GP 52, 4 - 30 Nm	354			●
EC 45, 150 W	253			AB 28	447	135.6
EC 45, 150 W	253	GP 42, 3 - 15 Nm	349	AB 28	447	●
EC 45, 150 W	253	GP 52, 4 - 30 Nm	354	AB 28	447	●
EC 45, 250 W	254					159.6
EC 45, 250 W	254	GP 42, 3 - 15 Nm	350			●
EC 45, 250 W	254	GP 52, 4 - 30 Nm	354			●
EC 45, 250 W	254	GP 62, 8 - 50 Nm	356			●
EC 45, 250 W	254			AB 28	447	168.4
EC 45, 250 W	254	GP 42, 3 - 15 Nm	350	AB 28	447	●
EC 45, 250 W	254	GP 52, 4 - 30 Nm	354	AB 28	447	●
EC 45, 250 W	254	GP 62, 8 - 50 Nm	356	AB 28	447	●
EC 60, 400 W	255					177.3
EC 60, 400 W	255	GP 81, 20 - 120 Nm	357			●
EC 60, 400 W	255			AB 41	449	214.9
EC 60, 400 W	255	GP 81, 20 - 120 Nm	357	AB 41	449	●

Technical Data

Supply voltage V_{CC}	5 V ± 10%
Output signal	EIA Standard RS 422
driver used:	DS26LS31
Phase shift Φ	90°e ± 45°e
Signal rise time (typically, at C_L = 25 pF, R_L = 11 kΩ, 25 °C)	180 ns
Signal fall time (typically, at C_L = 25 pF, R_L = 11 kΩ, 25 °C)	40 ns
Index pulse width	90°e
Operating temperature range	-40…+85 °C
Moment of inertia of code wheel	≤ 0.6 gcm²
Max. angular acceleration	250000 rad s^{-2}
Output current per channel	min. -20 mA, max. 20 mA

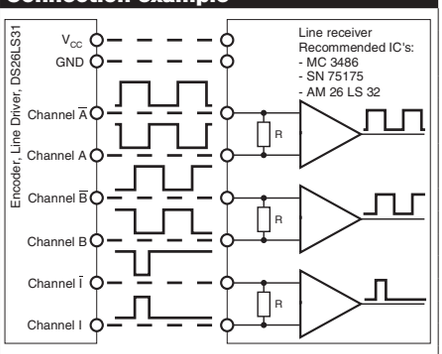
The index signal I is synchronized with channel A or B.

Pin Allocation

Cable white	=	2	V_{CC} 5 VDC
Cable brown	=	3	GND
Cable green	=	5	Channel $\overline{A}$
Cable yellow	=	6	Channel A
Cable grey	=	7	Channel $\overline{B}$
Cable pink	=	8	Channel B
Cable blue	=	9	Channel $\overline{I}$ (Index)
Cable red	=	10	Channel I (Index)

Cable size 8 × 0.25 mm²

Connection example



Terminal resistance R = typical 120 Ω

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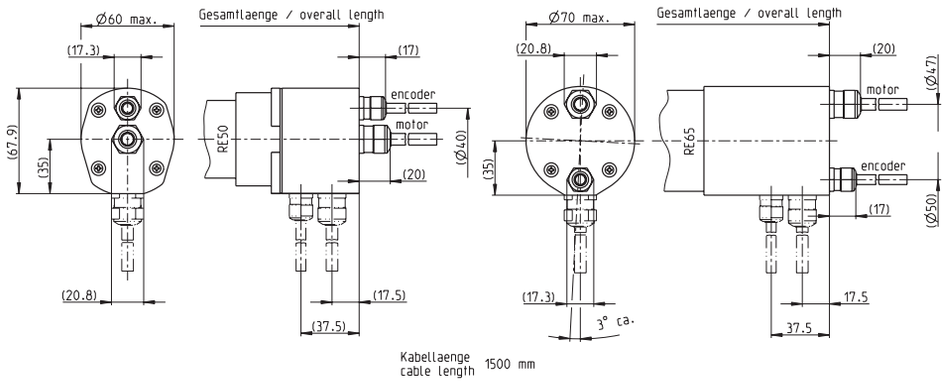

Direction of rotation cw (definition cw p. 150)

Stock program
Standard program
Special program (on request)

Part Numbers		
cable outlet axial	386051	386001
cable outlet radial	386053	386002

Type		
Counts per turn	500	500
Number of channels	3	3
Max. operating frequency (kHz)	100	100
Max. speed (rpm)	12000	12000

maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / ● see Gearhead	
RE 50, 200 W	187					170.4	
RE 50, 200 W	187	GP 52, 4 - 30 Nm	355			●	
RE 50, 200 W	187	GP 62, 8 - 50 Nm	356			●	
RE 50, 200 W	187			AB 44	450	183.4	
RE 50, 200 W	187	GP 52, 4 - 30 Nm	355	AB 44	450	●	
RE 50, 200 W	187	GP 62, 8 - 50 Nm	356	AB 44	450	●	
RE 65, 250 W	188						187.5
RE 65, 250 W	188	GP 81, 20 - 120 Nm	357				●
RE 65, 250 W	188			AB 44	450		205.5
RE 65, 250 W	188	GP 81, 20 - 120 Nm	357	AB 44	450		●

Technical Data

Supply voltage V_{CC}	5 V ± 10%
Output signal	EIA Standard RS 422
driver used:	DS26LS31
Phase shift Φ	90°e ± 45°e
Signal rise time (typically, at C_L = 25 pF, R_L = 11 kΩ, 25 °C)	180 ns
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Index pulse width	90°e
Operating temperature range	-40…+85 °C
Moment of inertia of code wheel	≤ 0.6 gcm²
Max. angular acceleration	250000 rad s⁻²
Output current per channel	min. -20 mA, max. 20 mA
Protection to	IP54

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

Pin Allocation

Encoder

Cable white	=	V_{CC} 5 VDC
Cable brown	=	GND
Cable green	=	Channel $\overline{A}$
Cable yellow	=	Channel A
Cable grey	=	Channel $\overline{B}$
Cable pink	=	Channel B
Cable blue	=	Channel $\overline{I}$ (Index)
Cable red	=	Channel I (Index)

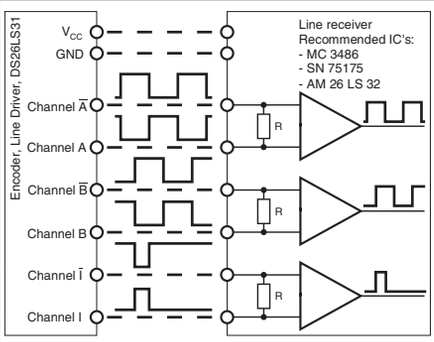
Cable size 8 × 0.25 mm²

Motor

Cable white	=	Motor +
Cable brown	=	Motor -

Cable size 2 × 1.0 mm²

Connection example



Terminal resistance R = typical 120 Ω