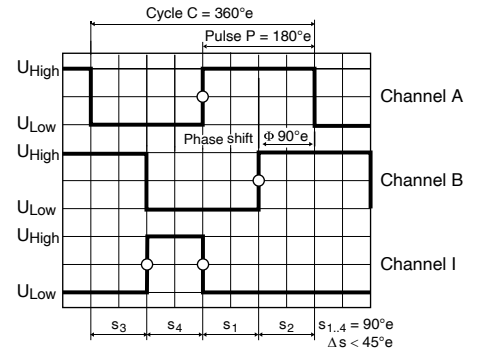
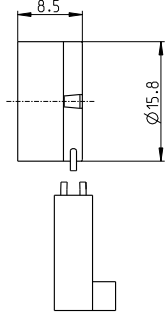


Encoder 16 EASY XT 128-1024 CPT, 3 channels, with line driver RS 422

sensor



Direction of rotation cw (definition cw p. 78)

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

Part Numbers						
584776	606052	577614	542079	577671	530965	

Type (provisional)						
Counts per turn	128	256	500	512	1000	1024
Number of channels	3	3	3	3	3	3
Max. operating frequency (kHz)	1600	1600	1600	1600	1600	1600
Max. speed (rpm)	30 000	30 000	30 000	30 000	30 000	30 000
Phase shift Φ (°e)	90 ± 45	90 ± 45	90 ± 60	90 ± 45	90 ± 80	90 ± 70
Index pulse width (°e)	90 ± 45	90 ± 45	90 ± 60	90 ± 45	90 ± 80	90 ± 70

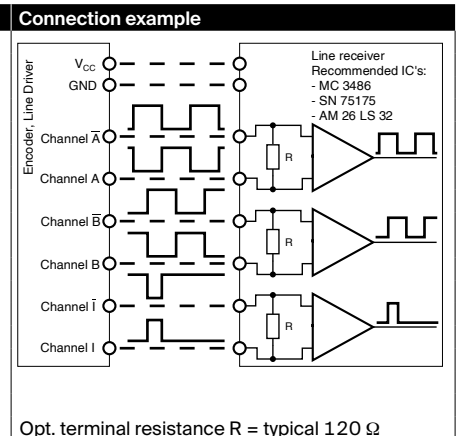


maxon Modular System										
+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / • see Gearhead				
EC-4pole 22, 90 W 257						60.8	60.8	60.8	60.8	60.8
EC-4pole 22, 90 W 257		GP 22, 2.0 - 3.4 Nm	387			•	•	•	•	•
EC-4pole 22, 90 W 257		GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•
EC-4pole 22, 90 W 257		GP 32 S	426-433			•	•	•	•	•
EC-4pole 22, 120 W 258						78.2	78.2	78.2	78.2	78.2
EC-4pole 22, 120 W 258		GP 22, 2.0 - 3.4 Nm	387			•	•	•	•	•
EC-4pole 22, 120 W 258		GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•
EC-4pole 22, 120 W 258		GP 32 S	426-433			•	•	•	•	•
EC-4pole 30, 100 W 259						60.9	60.9	60.9	60.9	60.9
EC-4pole 30, 100 W 259		GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•
EC-4pole 30, 100 W 259		GP 32, 4.0 - 8.0 Nm	400			•	•	•	•	•
EC-4pole 30, 100 W 259		GP 42, 3.0 - 15.0 Nm	406			•	•	•	•	•
EC-4pole 30, 100 W 259		GP 32 S	426-433			•	•	•	•	•
EC-4pole 30, 100 W 259				AB 20	532	97.3	97.3	97.3	97.3	97.3
EC-4pole 30, 100 W 259		GP 32, 1.0 - 6.0 Nm	398	AB 20	532	•	•	•	•	•
EC-4pole 30, 100 W 259		GP 32, 4.0 - 8.0 Nm	400	AB 20	532	•	•	•	•	•
EC-4pole 30, 100 W 259		GP 42, 3.0 - 15.0 Nm	406	AB 20	532	•	•	•	•	•
EC-4pole 30, 100 W 259		GP 32 S	426-433	AB 20	532	•	•	•	•	•
EC-4pole 30, 200 W 261						77.9	77.9	77.9	77.9	77.9
EC-4pole 30, 200 W 261		GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•
EC-4pole 30, 200 W 261		GP 32, 4.0 - 8.0 Nm	400			•	•	•	•	•
EC-4pole 30, 200 W 261		GP 42, 3.0 - 15.0 Nm	406			•	•	•	•	•
EC-4pole 30, 200 W 261		GP 32 S	426-433			•	•	•	•	•
EC-4pole 30, 200 W 261				AB 20	532	114.3	114.3	114.3	114.3	114.3
EC-4pole 30, 200 W 261		GP 32, 1.0 - 6.0 Nm	398	AB 20	532	•	•	•	•	•
EC-4pole 30, 200 W 261		GP 32, 4.0 - 8.0 Nm	400	AB 20	532	•	•	•	•	•
EC-4pole 30, 200 W 261		GP 42, 3.0 - 15.0 Nm	406	AB 20	532	•	•	•	•	•
EC-4pole 30, 200 W 261		GP 32 S	426-433	AB 20	532	•	•	•	•	•

Technical Data	
Supply voltage V_{CC}	5 V ± 10%
Typical current draw	22 mA
Output signal	EIA Standard RS 422
Operating temperature range	-55...+125 °C
Moment of inertia of code wheel	≤ 0.09 gcm ²
Output current per channel	± 20 mA
Hysteresis	0.17 °m
Min. state duration s	125 ns
Signal rise and fall times (typically, at $C_L = 200$ pF, $R_L = 100$ Ω)	10 ns

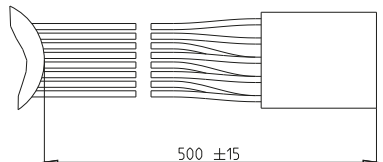
Pin Allocation	
1	N.C.
2	V_{CC}
3	GND
4	N.C.
5	Channel A
6	Channel A
7	Channel B
8	Channel B
9	Channel I (Index)
10	Channel I (Index)

DIN Connector 41651/EN 60603-13

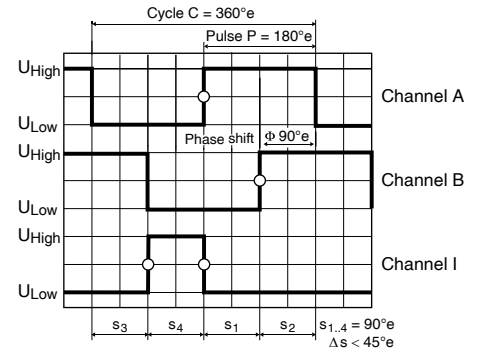
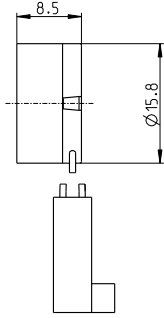


The angle value 0 is matched to the commutation phase of winding 1 (in acc. with Hall 1 signal on motors with Hall sensors, block commutation), see p. 56.

Additional information can be found in the maxon online shop under downloads.
The index signal I is synchronized with channel A or B.



Encoder 16 EASY XT 128–1024 CPT, 3 channels, with line driver RS 422



Direction of rotation cw (definition cw p. 78)

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

Part Numbers						
584776	606052	577614	542079	577671	530965	

Type (provisional)						
Counts per turn	128	256	500	512	1000	1024
Number of channels	3	3	3	3	3	3
Max. operating frequency (kHz)	1600	1600	1600	1600	1600	1600
Max. speed (rpm)	30 000	30 000	30 000	30 000	30 000	30 000
Phase shift ϕ (°e)	90 ± 45	90 ± 45	90 ± 60	90 ± 45	90 ± 80	90 ± 70
Index pulse width (°e)	90 ± 45	90 ± 45	90 ± 60	90 ± 45	90 ± 80	90 ± 70



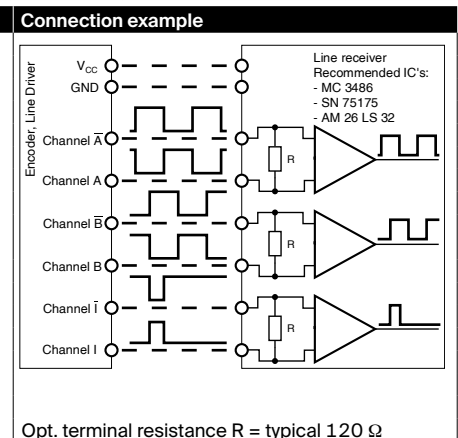
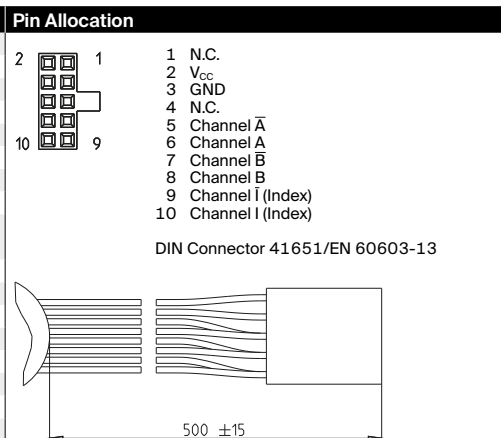
maxon Modular System						Overall length [mm] / • see Gearhead					
+ Motor	Page	+ Gearhead	Page	+ Brake	Page						
EC-i 30, 30 W	268					53.7	53.7	53.7	53.7	53.7	53.7
EC-i 30, 30 W	268	GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•	•
EC-i 30, 30 W	268	GP 32 S	426-433			•	•	•	•	•	•
EC-i 30, 45 W	269					53.7	53.7	53.7	53.7	53.7	53.7
EC-i 30, 45 W	269	GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•	•
EC-i 30, 45 W	269	GP 32 S	426-433			•	•	•	•	•	•
EC-i 30, 50 W	270					75.7	75.7	75.7	75.7	75.7	75.7
EC-i 30, 50 W	270	GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•	•
EC-i 30, 50 W	270	GP 32 S	426-433			•	•	•	•	•	•
EC-i 30, 75 W	271					75.7	75.7	75.7	75.7	75.7	75.7
EC-i 30, 75 W	271	GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•	•
EC-i 30, 75 W	271	GP 32 S	426-433			•	•	•	•	•	•
EC-i 40, 50 W	272-273					37.7	37.7	37.7	37.7	37.7	37.7
EC-i 40, 50 W	272	GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•	•
EC-i 40, 50 W	272	GP 32 S	426-433			•	•	•	•	•	•
EC-i 40, 50 W	272-273	GP 42, 3.0 - 15.0 Nm	405			•	•	•	•	•	•
EC-i 40, 70 W	274-275					47.7	47.7	47.7	47.7	47.7	47.7
EC-i 40, 70 W	274	GP 32, 1.0 - 6.0 Nm	398			•	•	•	•	•	•
EC-i 40, 70 W	274	GP 32 S	426-433			•	•	•	•	•	•
EC-i 40, 70 W	274-275	GP 42, 3.0 - 15.0 Nm	405			•	•	•	•	•	•
EC-i 40, 100 W	276					67.7	67.7	67.7	67.7	67.7	67.7
EC-i 40, 100 W	276	GP 42, 3.0 - 15.0 Nm	405			•	•	•	•	•	•
EC-i 40, 130 W	277					102.5	102.5	102.5	102.5	102.5	102.5
EC-i 40, 130 W	277	GP 42, 3.0 - 15.0 Nm	405			•	•	•	•	•	•
EC-i 52, 180 W	278					93.7	93.7	93.7	93.7	93.7	93.7
EC-i 52, 180 W	278	GP 52, 4.0 - 30.0 Nm	410			•	•	•	•	•	•
EC-i 52, 200 W	279					123.7	123.7	123.7	123.7	123.7	123.7
EC-i 52, 200 W	279	GP 52, 4.0 - 30.0 Nm	410			•	•	•	•	•	•
EC-i 52, 250 W	280					93.7	93.7	93.7	93.7	93.7	93.7
EC-i 52, 420 W	281					93.7	93.7	93.7	93.7	93.7	93.7

Technical Data

Supply voltage V_{CC} 5 V ± 10%
 Typical current draw 22 mA
 Output signal EIA Standard RS 422
 Operating temperature range -55...+125 °C
 Moment of inertia of code wheel ≤ 0.09 gcm²
 Output current per channel ± 20 mA
 Hysteresis 0.17 °m
 Min. state duration s 125 ns
 Signal rise and fall times (typically, at $C_L = 200$ pF, $R_L = 100$ Ω) 10 ns

The angle value 0 is matched to the commutation phase of winding 1 (in acc. with Hall 1 signal on motors with Hall sensors, block commutation), see p. 56.

Additional information can be found in the maxon online shop under downloads.
 The index signal I is synchronized with channel A or B.



sensor