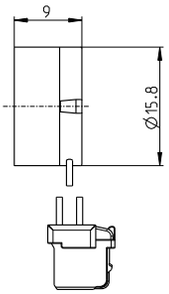
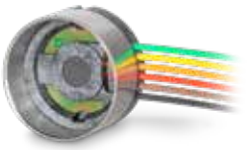
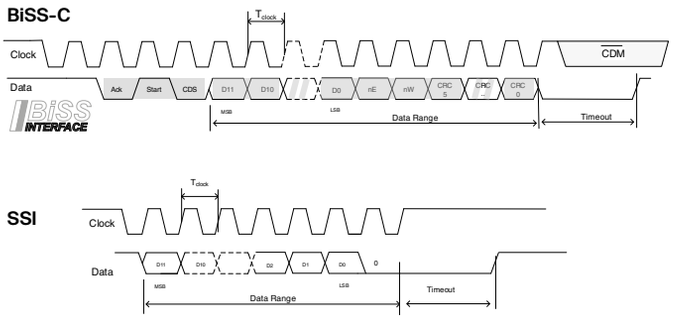
Encoder 16 EASY Absolute XT 4096 steps, single turn



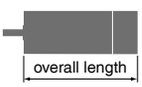




Angle values increase when direction of rotation is cw (definition of 'cw' on p. 78)

Stock program
Standard program
Special program (on request)

Part numbers	588632	588631
Type (provisional)		
Steps per turn	4096	4096
Resolution (bit single turn)	12	12
Signal protocol	BiSS-C	SSI
Max. mech. speed (rpm)	30 000	30 000
Data encoding	Binary	Gray Symmetric
Min. clock frequency CLK (MHz)	0.05	0.04
Max. clock frequency CLK (MHz)	10	4
Min. timeout (µs)	adaptive	20



maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / • see Gearhead	
EC-4pole 22, 90 W	257					61.3	61.3
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					78.7	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					61.4	61.4
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	97.8	97.8
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					78.4	78.4
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	114.8	114.8
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	•	•

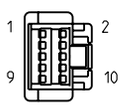
Technical data

Supply voltage V_{CC}	5 V ± 5%
Typical current draw	22 mA
Output signal	EIA Standard RS 422
Output current, data	max. 20 mA
Setup time after Power On	max. 4 ms
Moment of inertia of code wheel	≤ 0.09 gcm²
Operating temperature range	-55...+125 °C

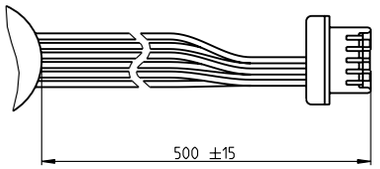
The angle value 0 is matched to the commutation phase of winding 1 (in acc. with Hall 1 signal on motors with Hall sensors, block commutation), see p. 56.

Additional information can be found under 'Downloads' in the maxon online shop.

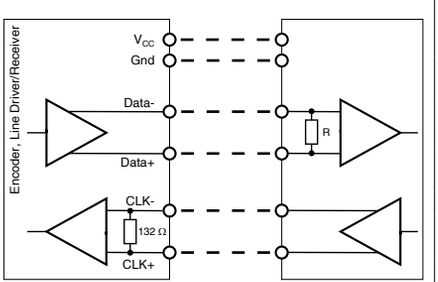
Pin assignment



1	Not connected
2	Not connected
3	Not connected
4	Not connected
5	CLK
6	CLK\
7	Data
8	Data\
9	GND
10	Vcc

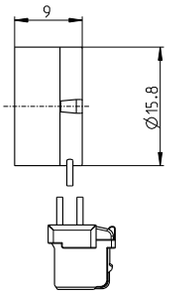


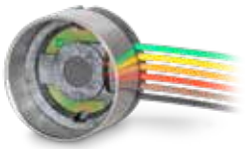
Connection example

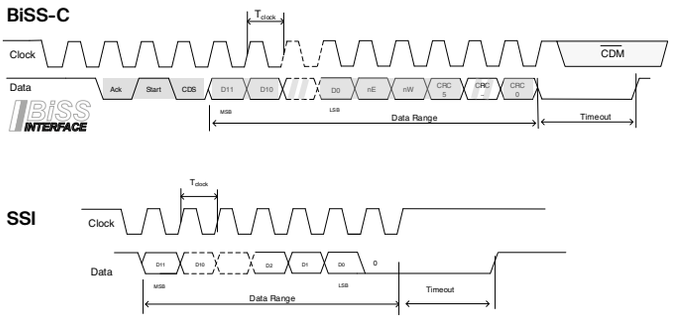


Opt. terminal resistance R = typical 120 Ω

Encoder 16 EASY Absolute XT 4096 steps, single turn







Angle values increase when direction of rotation is cw (definition of 'cw' on p. 78)

Stock program
Standard program
Special program (on request)

Type (provisional)	Part numbers 588632	588631
Steps per turn	4096	4096
Resolution (bit single turn)	12	12
Signal protocol	BiSS-C	SSI
Max. mech. speed (rpm)	30 000	30 000
Data encoding	Binary	Gray Symmetric
Min. clock frequency CLK (MHz)	0.05	0.04
Max. clock frequency CLK (MHz)	10	4
Min. timeout (µs)	adaptive	20

maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / ● see Gearhead	
EC-i 30, 30 W	268					54.2	54.2
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					54.2	54.2
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					76.2	76.2
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					76.2	76.2
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					38.2	38.2
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					48.2	48.2
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					68.2	68.2
EC-i 40, 100 W	276	GP 42, 3.0 - 15.0 Nm	405			●	●
EC-i 40, 130 W	277					103.0	103.0
EC-i 40, 130 W	277	GP 42, 3.0 - 15.0 Nm	405			●	●
EC-i 52, 180 W	278					94.2	94.2
EC-i 52, 180 W	278	GP 52, 4.0 - 30.0 Nm	410			●	●
EC-i 52, 200 W	279					124.2	124.2
EC-i 52, 200 W	279	GP 52, 4.0 - 30.0 Nm	410			●	●
EC-i 52, 250 W	280					94.2	94.2
EC-i 52, 420 W	281					94.2	94.2

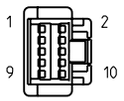
Technical data

Supply voltage V_{CC}	5 V ± 5%
Typical current draw	22 mA
Output signal	EIA Standard RS 422
Output current, data	max. 20 mA
Setup time after Power On	max. 4 ms
Moment of inertia of code wheel	≤ 0.09 gcm²
Operating temperature range	-55...+125 °C

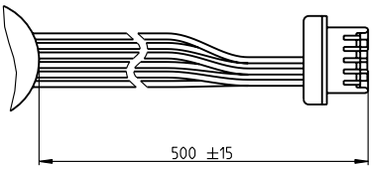
The angle value 0 is matched to the commutation phase of winding 1 (in acc. with Hall 1 signal on motors with Hall sensors, block commutation), see p. 56.

Additional information can be found under 'Downloads' in the maxon online shop.

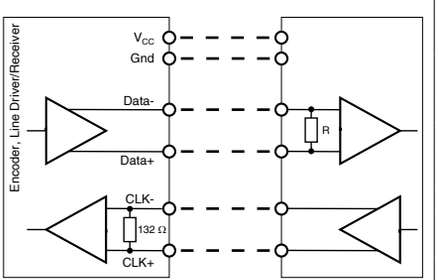
Pin assignment



1	Not connected
2	Not connected
3	Not connected
4	Not connected
5	CLK
6	CLK\
7	Data
8	Data\
9	GND
10	Vcc



Connection example



Opt. terminal resistance R = typical 120 Ω