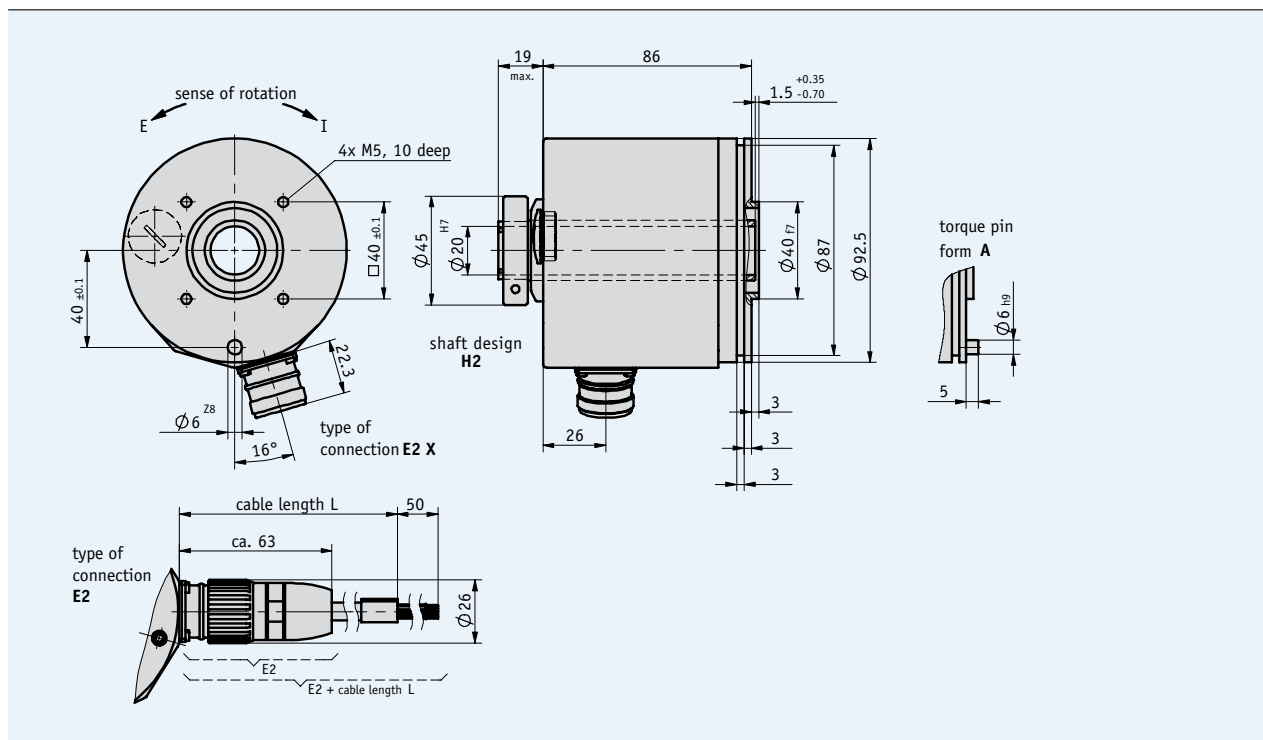


### Profile

- Up to 8192 steps per revolution and 4096 revolutions
- SSI interface
- Gray or binary output code
- Programmable
- Through hollow shaft



### Mechanical data

Feature	Technical data	Additional information
Accuracy	±1 LSB	
Max. speed	3000 rpm 2000 rpm	with IP54 with IP65
Shaft moment of inertia	~1 x 10 <sup>-4</sup> kgm <sup>2</sup>	
Angular acceleration	2 x 10 <sup>5</sup> rad/s <sup>2</sup>	
Starting torque at 20 °C	~5 Ncm ~15 Ncm	with IP54 with IP65
Shaft load rating	radial 1200 N axial 400 N	
Weight	~1.2 kg	
Protection category	IP64, IP65	
Operating temperature	0 ... +60 °C	
Storage temperature	-20 ... +85 °C	
Bearing life	min. 400 x 10 <sup>6</sup> revolutions	109 with 20 N shaft load
Shock resistance	30 g/13 ms	according to DIN EN 60068-2-27
Vibration resistance	10 g/5 ... 150 Hz, 20 g/100 ... 2000 Hz	according to DIN EN 60068-2-6
Shaft	browned steel, on double ball bearing	
Housing	aluminum	
Cable sheath	PVC	

### Electrical data

Electrical data	SSI	Additional information
Operating voltage	24 V DC ±20 %	
Output driver	RS 485	
Power consumption	<1.3 W	
Permissible load/channel	max. 1 MHz	
SSI clock rate min./max.	100 kHz/500 kHz	
Signal level high	typ. 3.8 V	
Signal level low	typ. 1.3 V (20 mA)	
Ramp up time tr	max. 100 ns	without cable
Ramp down time tf	max. 100 ns	without cable
Short-circuit resistant outputs	yes, short-circuit to GND permissible	
Inverse-polarity protection on UB	yes	

### Pin assignment

#### ■ Type of connection E2, E2X

##### Interface S6/04, SSI

Signal	Cable color	PIN
Data-	pink	1
Data+	blue	2
Clock-	red	3
Clock+	black	4
+UB (Power supply)	brown	5
GND (Interface)	white	6
DÜA (Interface)	yellow	7
DÜB (Interface)	green	8
GND (Power supply)	gray	9

### Order

#### Order table

Feature	Order text	Specification	Additional information
Interface/protocol	S6/04 A	RS422/SSI Inter-Bus-S and Profibus on request	clock rate depending on cable length 100 kHz ... 1 MHz
Type of connection	E2 E2X B	with mating connectors without mating connectors	for SSI for SSI
Cable length L	... OK C	0.5, 2 ... 20 m, in steps of 1 m without cable	only with E1, E2, E6
Steps per revolution	... D	256, 360, 512, 720, 1024, 2048, 4096, 8192	max. 13 bit
Number of revolutions	... E	128, 256, 512, 1024, 2048, 4096	max. 12 bit
Output code	B G F	binary code Gray code	
Sense of rotation	E I G	counter-clockwise ascending values clockwise ascending values	
Protection category IP	54 65 H	IP54 IP65	
Torque support/form	A O I	form A, cylindric pin without torque support	
Shaft diameter	16 20 K	∅ 16 mm ∅ 20 mm	

2.2

#### Order code

WK50/1 -  -  -  -  -  -  -  -  -  -  - M1 - H2 -  -

A      B      C      D      E      F      G      H      I      K

**Scope of delivery:** WK50/1, User information

**Accessories:**

Servo-clamp  
Electronic displays MA55, MA10/4

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**Additional information:**

General information and areas of application

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