ENC58™



Extended Line

- Standard dimension Ø58mm
- Hollow or solid shaft
- High resolution
- Programmable
- 10000 PPR native guaranteed resolution

APPLICATIONS

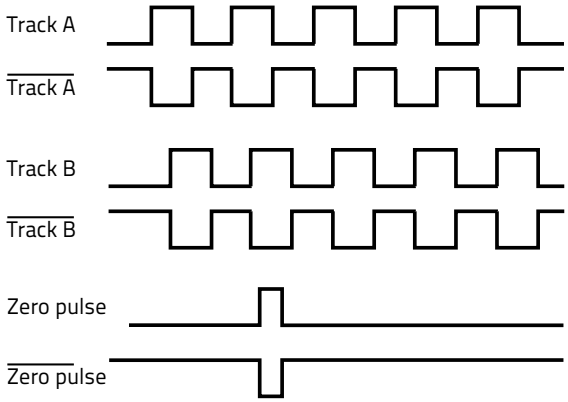
- Motion control
- Automated machinery
- Conveyor lines

MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS	
Case dimension	Ø 58 mm, depth 54 mm
Shaft dimension	Hollow Ø 14 or 15 mm, solid Ø 6 or 10 mm
Shaft loading (axial and radial)	100 N max.
Shaft rotational speed	6000 rpm continuous, 12000 rpm temporary
Starting torque at 20 °C	≤ 1 Ncm (typ.)
Bearings life	10^9 min.
Weight	0.3 kg (10 oz) ca.
Case material	Aluminium anticorodal UNI EN AW-6082
Flange material	Aluminium anticorodal UNI EN AW-6082
Shaft material	Stainless steel non-magnetic UNI EN 4305
Bearings material	ABEC 5
Mechanical protection	IP64
Shock resistance	100g, 6 ms (MIL STD 202F)
Vibration resistance	10 g, 5-2000 Hz (MIL STD 202F)
Operating temperature	-25 to +85°C (-13 to 185°F)
Storage temperature	-25 to +85°C (-13 to 185°F), 98% R.H. non condensing

Note: specifications subject to changes without prior notice, please refer to the user manual received with the product for mounting, wiring and operation.

ELECTRICAL SPECIFICATIONS	
Resolution	500, 1000, 1024, 2000, 2048, 2500, 5000, 10000 PPR and programmable (the 10000 PPR has native guaranteed resolution and is not interpolated)
Counting frequency	100 kHz max.
Output signals	AB0 and /A/B/0
Output circuit	Smart Push-Pull & Line Driver
Power supply	5 – 30 Vdc
Consumption	70 mA max.
Output current	40 mA max (per each channel)
Connection	8-poles shielded cable 1.5m or connector M12 or M23
Protection	Polarity inversion and short circuit
EMC	According to EN61000-6-2 and EN61000-6-4
Light source	Ga-Al diodes
Optoelectronic life	> 100.000 hrs

OUTPUT SIGNALS

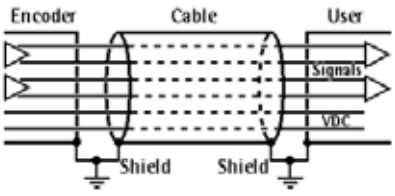


The incremental encoders supply A and B, 90° phase shifted signals, and their related complement outputs.

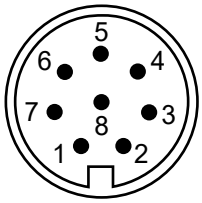
A single channel can provide the rotation speed only, whereas two phase shifted channels can give also the rotation direction and increase resolution.

The 0 index is used as reference mark for the "home" position.

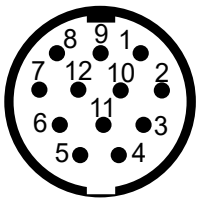
ELECTRICAL CONNECTIONS									
Signal	A	/A	B	/B	0	/0	+Vdc	0Vdc	Ground
Wire	Green	Yellow	Gray	Pink	Blue	Red	Brown	White	Shield
M12 pin	3	4	5	6	7	8	2	1	Case
M23 pin	3	4	5	6	7	8	2	1	Case



8-poles cable



M12 8-pin connector

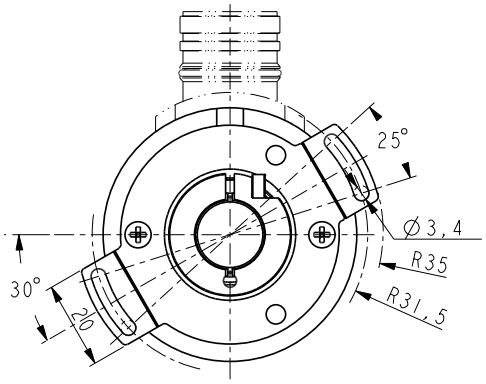


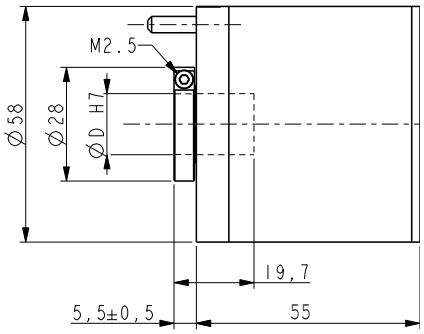
M23 12-pin connector cw (only 8 pins are used)

NOTE: view and pin-out of the connectors on the encoder side

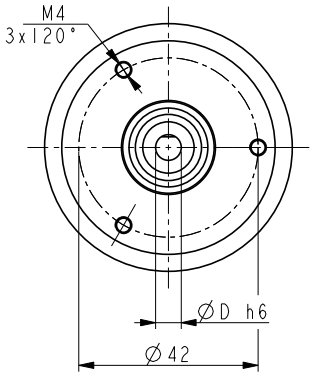
DIMENSIONS

HOLLOW SHAFT VERSION

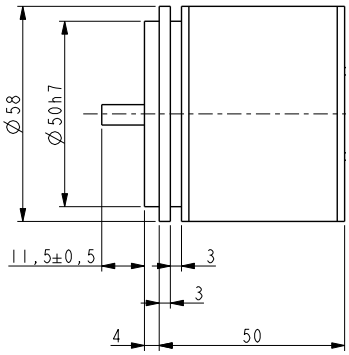


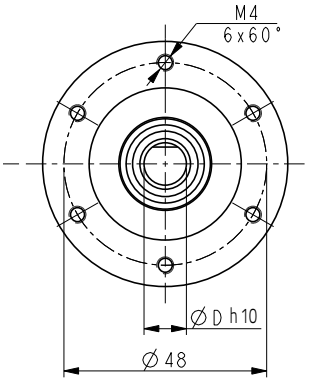


SOLID SHAFT VERSION

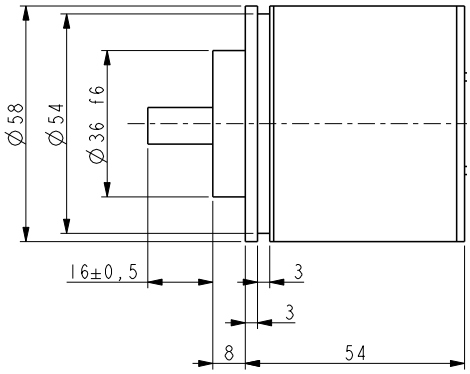


ENC58-S06





ENC58-S10

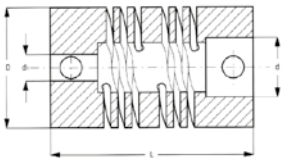


MODEL SELECTION

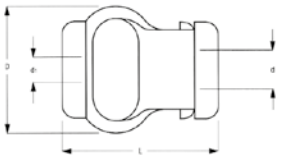
HOLLOW SHAFT MODELS				
SHAFT	CONNECTION	RESOLUTION	MODEL	ORDER NO.
Hollow shaft ○Ø14 mm	Cable 1.5m	500 PPR	ENC58-H14-0500-C15	95B080510
		1000 PPR	ENC58-H14-1000-C15	95B080520
		1024 PPR	ENC58-H14-1024-C15	95B080530
		2000 PPR	ENC58-H14-2000-C15	95B080540
		2048 PPR	ENC58-H14-2048-C15	95B080550
		2500 PPR	ENC58-H14-2500-C15	95B081550
		5000 PPR	ENC58-H14-5000-C15	95B080560
		10000 PPR	ENC58-H14-10000-C15	95B080570
	M12 conn.	500 PPR	ENC58-H14-0500-M12	95B080660
		1000 PPR	ENC58-H14-1000-M12	95B080670
		1024 PPR	ENC58-H14-1024-M12	95B080680
		2000 PPR	ENC58-H14-2000-M12	95B080690
		2048 PPR	ENC58-H14-2048-M12	95B080700
		2500 PPR	ENC58-H14-2500-M12	95B081570
		5000 PPR	ENC58-H14-5000-M12	95B080710
		10000 PPR	ENC58-H14-10000-M12	95B080720
	M23 conn.	500 PPR	ENC58-H14-0500-M23	95B080580
		1000 PPR	ENC58-H14-1000-M23	95B080590
		1024 PPR	ENC58-H14-1024-M23	95B080600
		2000 PPR	ENC58-H14-2000-M23	95B080610
		2048 PPR	ENC58-H14-2048-M23	95B081560
		2500 PPR	ENC58-H14-2500-M23	95B080620
		5000 PPR	ENC58-H14-5000-M23	95B080630
		10000 PPR	ENC58-H14-10000-M23	95B080640
		Programmable	ENC58-H14-PROG-M23	95B080650
Hollow shaft ○Ø15 mm	Cable 1.5m	500 PPR	ENC58-H15-0500-C15	95B080740
		1000 PPR	ENC58-H15-1000-C15	95B080750
		1024 PPR	ENC58-H15-1024-C15	95B080760
		2000 PPR	ENC58-H15-2000-C15	95B080770
		2048 PPR	ENC58-H15-2048-C15	95B080780
		2500 PPR	ENC58-H15-2500-C15	95B081580
		5000 PPR	ENC58-H15-5000-C15	95B080790
		10000 PPR	ENC58-H15-10000-C15	95B080800
	M12 conn.	500 PPR	ENC58-H15-0500-M12	95B080890
		1000 PPR	ENC58-H15-1000-M12	95B080900
		1024 PPR	ENC58-H15-1024-M12	95B080910
		2000 PPR	ENC58-H15-2000-M12	95B080920
		2048 PPR	ENC58-H15-2048-M12	95B080930
		2500 PPR	ENC58-H15-2500-M12	95B081600
		5000 PPR	ENC58-H15-5000-M12	95B080940
		10000 PPR	ENC58-H15-10000-M12	95B080950
	M23 conn.	500 PPR	ENC58-H15-0500-M23	95B080810
		1000 PPR	ENC58-H15-1000-M23	95B080820
		1024 PPR	ENC58-H15-1024-M23	95B080830
		2000 PPR	ENC58-H15-2000-M23	95B080840
		2048 PPR	ENC58-H15-2048-M23	95B080850
		2500 PPR	ENC58-H15-2500-M23	95B081590
		5000 PPR	ENC58-H15-5000-M23	95B080860
		10000 PPR	ENC58-H15-10000-M23	95B080870
		Programmable	ENC58-H15-PROG-M23	95B080880

SOLID SHAFT MODELS				
SHAFT	CONNECTION	RESOLUTION	MODEL	ORDER NO.
Solid shaft ● Ø6 mm	Cable 1.5m	500 PPR	ENC58-S06-0500-C15	95B080140
		1000 PPR	ENC58-S06-1000-C15	95B080150
		1024 PPR	ENC58-S06-1024-C15	95B080160
		2000 PPR	ENC58-S06-2000-C15	95B080170
		2048 PPR	ENC58-S06-2048-C15	95B080180
		2500 PPR	ENC58-S06-2500-C15	95B081500
		5000 PPR	ENC58-S06-5000-C15	95B080190
		10000 PPR	ENC58-S06-10000-C15	95B080200
	M23 conn.	500 PPR	ENC58-S06-0500-M23	95B080210
		1000 PPR	ENC58-S06-1000-M23	95B080220
		1024 PPR	ENC58-S06-1024-M23	95B080230
		2000 PPR	ENC58-S06-2000-M23	95B080240
		2048 PPR	ENC58-S06-2048-M23	95B080250
		2500 PPR	ENC58-S06-2500-M23	95B081510
		5000 PPR	ENC58-S06-5000-M23	95B080260
		10000 PPR	ENC58-S06-10000-M23	95B080270
Solid shaft ● Ø10 mm	Cable 1.5m	500 PPR	ENC58-S10-0500-C15	95B080280
		1000 PPR	ENC58-S10-1000-C15	95B080290
		1024 PPR	ENC58-S10-1024-C15	95B080300
		2000 PPR	ENC58-S10-2000-C15	95B080310
		2048 PPR	ENC58-S10-2048-C15	95B080320
		2500 PPR	ENC58-S10-2500-C15	95B081520
		5000 PPR	ENC58-S10-5000-C15	95B080330
		10000 PPR	ENC58-S10-10000-C15	95B080340
	M12 conn.	500 PPR	ENC58-S10-0500-M12	95B080430
		1000 PPR	ENC58-S10-1000-M12	95B080440
		1024 PPR	ENC58-S10-1024-M12	95B080450
		2000 PPR	ENC58-S10-2000-M12	95B080460
		2048 PPR	ENC58-S10-2048-M12	95B080470
		2500 PPR	ENC58-S10-2500-M12	95B081540
		5000 PPR	ENC58-S10-5000-M12	95B080480
		10000 PPR	ENC58-S10-10000-M12	95B080490
	M23 conn.	500 PPR	ENC58-S10-0500-M23	95B080350
		1000 PPR	ENC58-S10-1000-M23	95B080360
		1024 PPR	ENC58-S10-1024-M23	95B080370
		2000 PPR	ENC58-S10-2000-M23	95B080380
		2048 PPR	ENC58-S10-2048-M23	95B080390
		2500 PPR	ENC58-S10-2500-M23	95B081530
		5000 PPR	ENC58-S10-5000-M23	95B080400
		10000 PPR	ENC58-S10-10000-M23	95B080410
		Programmable	ENC58-S10-PROG-M23	95B080420

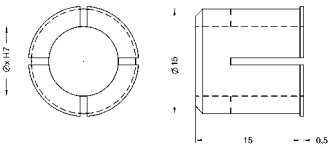
ACCESSORIES		
DESCRIPTION	MODEL	ORDER NO.
Flexible Aluminium coupling Ø6 mm	FAC06-06	95B081300
Flexible Aluminium coupling Ø10 mm	FAC10-10	95B081310
Flexible standard plastic coupling Ø6 mm	FBC06-06	95B081320
Flexible standard plastic coupling Ø10 mm	FBC10-10	95B081330
Encoder reducing sleeve Ø15 - 6 mm	RS15-06	95B081340
Encoder reducing sleeve Ø15 - 8 mm	RS15-08	95B081350
Encoder reducing sleeve Ø15 - 10 mm	RS15-10	95B081360
Encoder reducing sleeve Ø15 - 11 mm	RS15-11	95B081370
Encoder reducing sleeve Ø15 - 12 mm	RS15-12	95B081380
Encoder reducing sleeve Ø15 - 9.52 mm (3/8")	RS15-3/8	95B081390
Ø58 Encoder fixing clamps (3 kits)	ST-58-KIT	95B081400
Ø58 Encoder mounting bell	ST-58-BELL	95B081410
Ø58 Encoder mounting L-bracket	ST-58-BRKT	95B081420
Ø58 Encoder mounting square flange	ST-58-FLNG	95B081430
Incremental encoder conn. cw M23 12-poles with 5m cable	CN-M23-12P-05	95B081260
Incremental encoder conn. cw M23 12-poles with 10m cable	CN-M23-12P-10	95B081270
Incremental encoder conn. cw M23 12-poles without cable	CN-M23-12P-00	95B081280
Metal M12 8-poles female conn. with 5m cable	CN-M12-08P-05	95B081230
Metal M12 8-poles female conn. with 10m cable	CN-M12-08P-10	95B081240
Metal M12 8-poles female connector without cable	CN-M12-08P-00	95B081250
UL Plastic M12 8-poles female conn. with 3m cable	CS-A1-06-U-03	95ASE1220
UL Plastic M12 8-poles female conn. with 5m cable	CS-A1-06-U-05	95ASE1230
UL Plastic M12 8-poles female conn. with 10m cable	CS-A1-06-U-10	95ASE1240
UL Plastic M12 8-poles female conn. with 15m cable	CS-A1-06-U-15	95ASE1250
UL Plastic M12 8-poles female conn. with 25m cable	CS-A1-06-U-25	95ASE1260
UL Plastic M12 8-poles female conn. with 50m cable	CS-A1-06-U-50	95A252710
UL Plastic M12 8-poles female connector without cable	CS-A1-06-B-NC	95ACC2550
USB KIT for programmable encoders	ENC58-PROG-KIT	95B081760



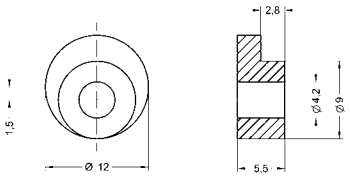
FAC06-06 (L22/D19/d6 mm)
FAC10-10 (L24/D25/d10 mm)



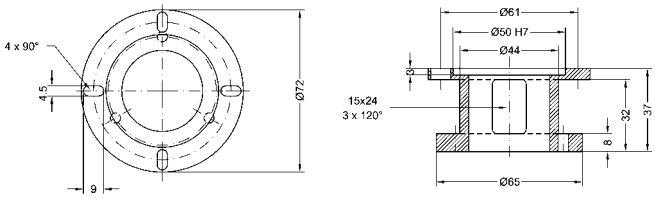
FBC06-06 (L29/D22/d6 mm)
FBC10-10 (L29/D22/d10 mm)



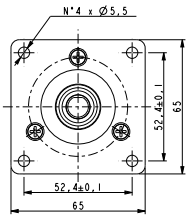
RS15-xx (int. Ø as specified in description)



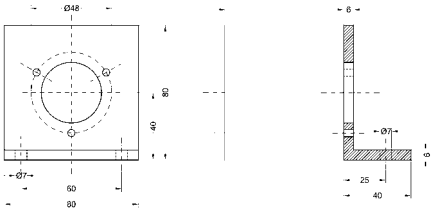
ST58-KIT



ST-58-BELL



ST-58-FLNG



ST-58-BRKT