

Series

ES58 • ES58S • ESC58

- Compact singleturn encoder
- Bit parallel version
- Resolution up to 8192 cpr
- High degree of protection, IP67



ES58 • ES58S • ESC58

ENVIRONMENTAL SPECIFICATIONS

Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP67, IP65 shaft side
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)
Option:	• Operating temperature range: -40°C +100°C (-40°F +212°F)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	100 N max.
Shaft rotational speed:	12000 rpm, 9000 rpm continuous operation
Starting torque at 20°C:	ES58: 0,15 Ncm (typ.) ES58S, ESCxx: 0,4 Ncm (typ.)
Bearings life:	400 x10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max.).
Electrical connections:	cable output 2 m (6.56 ft), M23 17 pin
Weight:	~ 200 g (7 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

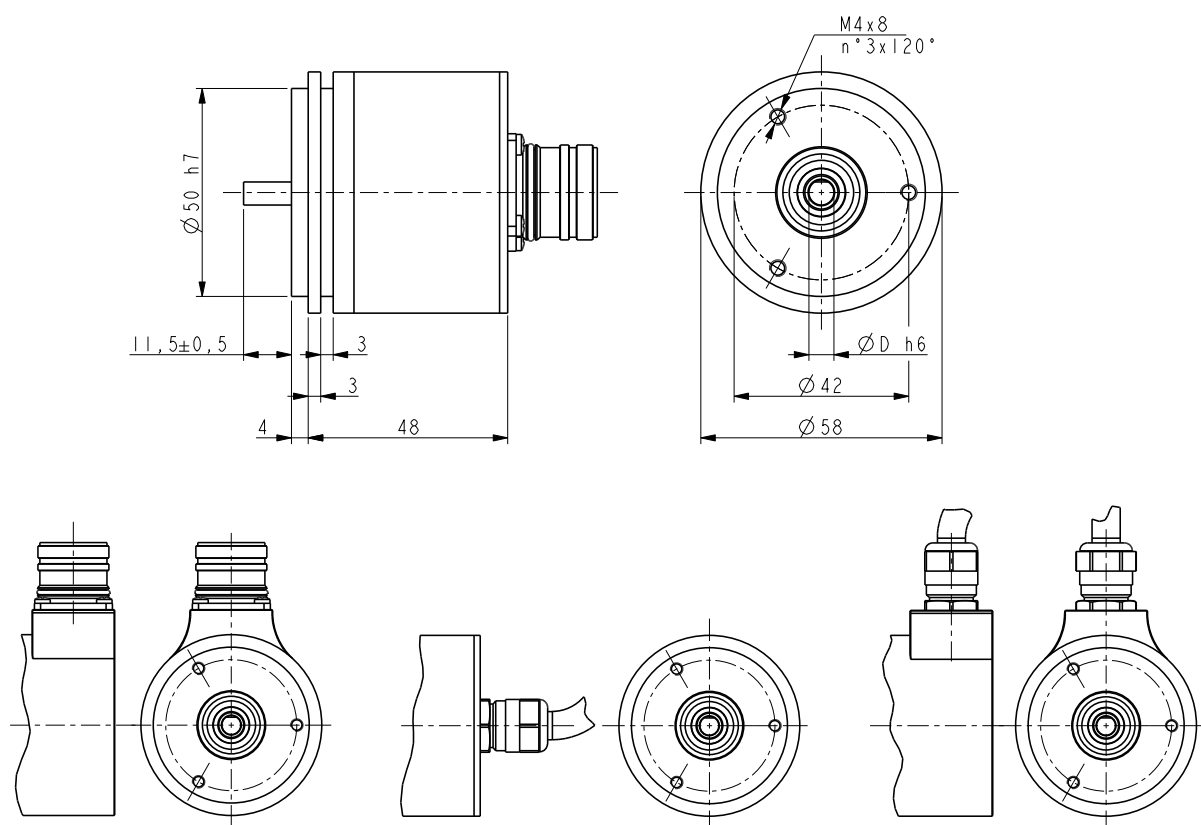
Resolution:	360, 720, 1024, 4096, 8192 cpr
Counting frequency:	50 kHz
Output circuits:	Push-Pull, NPN
Output code:	Gray, Binary
Power supply:	+10Vdc +30Vdc
Consumption:	1,6 W
Protection:	against inversion of polarity, short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Functions:	• counting direction (input) • Zero setting (input)

MATERIALS

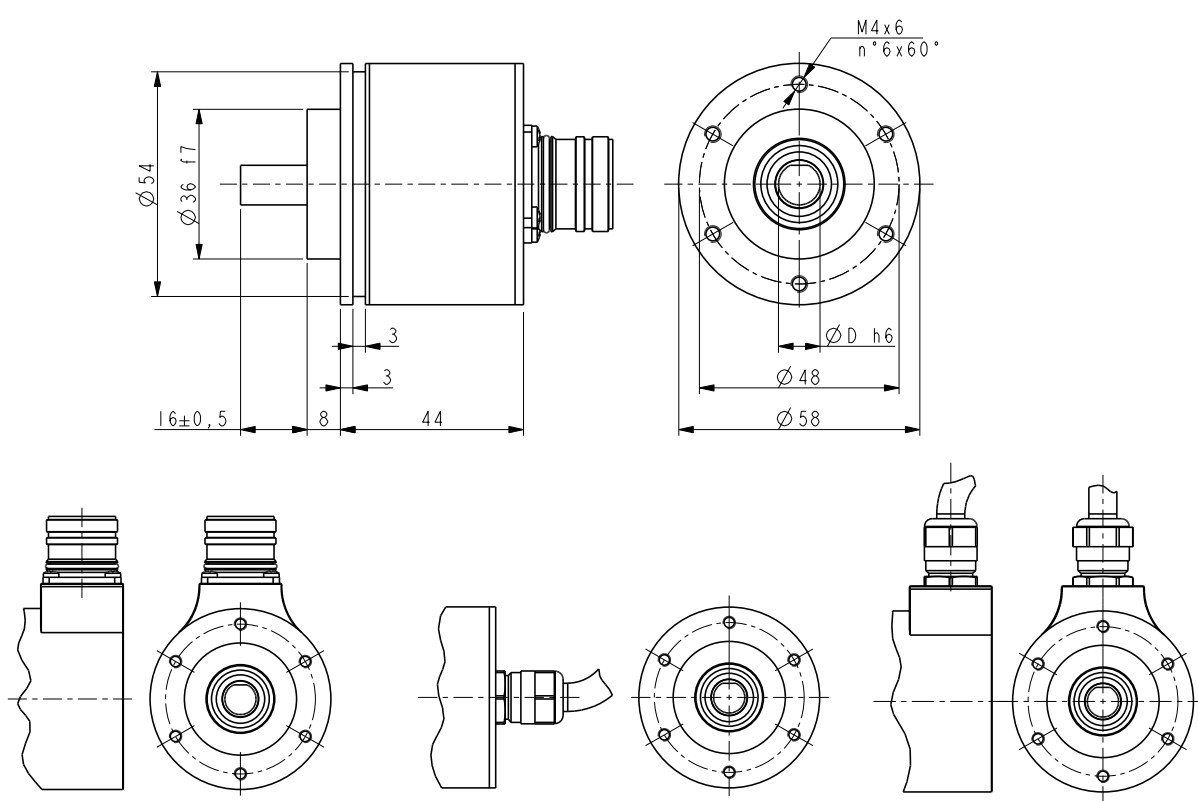
Flange:	aluminium, anticorodal, UNI EN AW-6082
Housing:	anticorodal, UNI EN AW-6082 or zamac die cast
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic - UNI EN 4305

ACCESSORIES

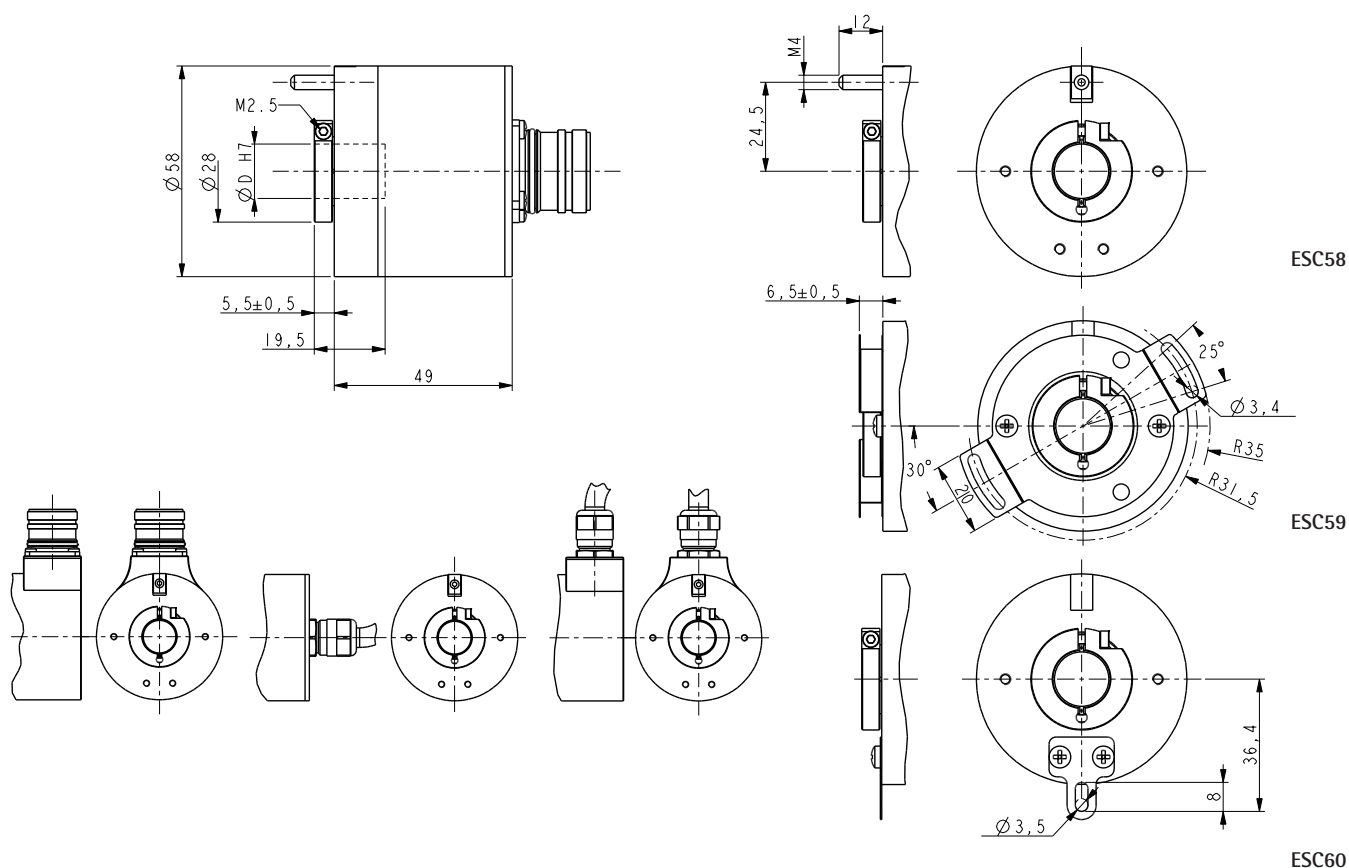
EPFL171H:	M23 17 pin mating connector
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
EC-CR17F-LK-A20-Lxxx:	cordset xx m, M23 17 pin conn.
LKM386:	fixing clamps



ES58



ES58S



Order code - Bit parallel output

ES58	ESC58	XX-XX	-	XXX	-	XX	-	X	X	-	X	X	/Sxxx
ES58S	ESC59	(a)		(b)		(c)		(d)	(e)		(f)	(g)	(h)
	ESC60												

**(a) RESOLUTION
(BIT SINGLETURN-BIT MULTITURN)**

36-00 = 360 cpr
 72-00 = 720 cpr
 08-00 = 8 bit (256 cpr)
 09-00 = 9 bit (512 cpr)
 10-00 = 10 bit (1024 cpr)
 11-00 = 11 bit (2048 cpr)
 12-00 = 12 bit (4096 cpr)
 13-00 = 13 bit (8192 cpr)

(b) INTERFACE / POWER SUPPLY

BY2 = Binary, Push-Pull, +10Vdc+30Vdc
 GY2 = Gray, Push-Pull, +10Vdc+30Vdc
 BN2 = Binary, NPN, +10Vdc+30Vdc
 GN2 = Gray, NPN, +10Vdc+30Vdc

(c) SHAFT DIAMETER

06 = 6 mm
 08 = 8 mm
 P9 = 9.52mm / 3/8"
 10 = 10 mm
 12 = 12 mm
 14 = 14 mm (ESCxx)
 15 = 15 mm (ESCxx)

(d) PROTECTION

P = IP67, IP65 shaft side

(e) OPER. TEMP. RANGE

T = -25°C +85°C (-13°F +185°F)
 K = -40°C +100°C (-40°F +212°F)

(f) CONNECTION POSITION

A = axial
 R = radial

(g) CONNECTION TYPE & CABLE LENGTH

L020 = cable output 2 m (standard)
 Lxx0 = cable out. x m (max. length 10 m)
 L100 = cable output 10 m
 M7 = M23 17 pin plug

(h) CUSTOM VERSION

Document release	Date	Description
1.2	6.05.2026	Obsolete / End of life for SSI version
1.1	4.12.2025	Phase Out
1.0	February 2024	New order code