

ROTACOD

Absolute multi turn encoders

Series

EM58 • EM58S • EMC58



- AM58 series replacement version
- Not for new designs



EM58 • EM58S • EMC58

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
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

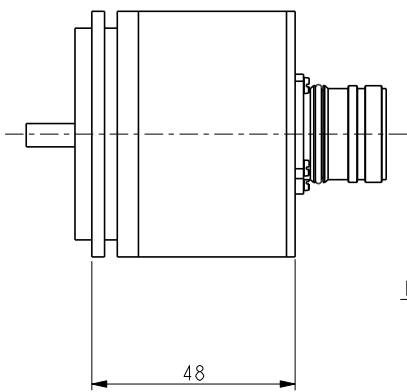
Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	100 N max.
Shaft rotational speed:	12000 rpm, 9000 rpm continuous operation
Starting torque (at 20°C):	EM58: 0,15 Ncm (typ.) EM58S, EMCxx: 0,4 Ncm (typ.)
Bearings life:	400 x10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max.)
Electrical connections:	cable 1 m, 0,2 m cable + MIL or DSub inline plug
Weight:	~ 250 g (8,8 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

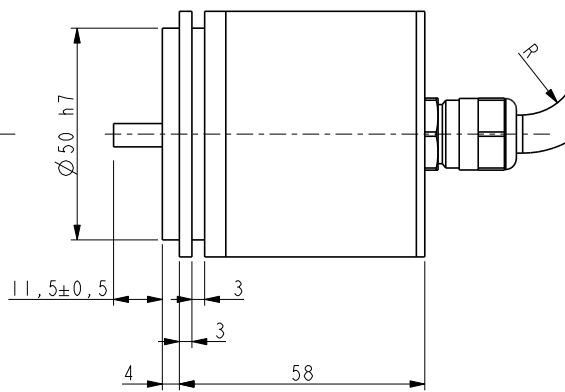
Resolution:	see order code
Accuracy:	± 0,02°
Output circuits:	SSI (RS422), Bit parallel Push-Pull, NPN, PNP
Output code:	Gray, Binary
Counting frequency:	SSI: 150 kHz, Bit Parallel: 30 kHz
Power supply:	+7,5Vdc ÷ 34Vdc
Power consumption:	SSI: 1 W Bit parallel: 1,7 W
Protection:	against inversion of polarity, short-circuit
EMC:	electro-magnetic immunity, according to EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	> 100.000 h
Functions:	• counting direction (input) • Zero setting/Preset (input)

MATERIALS

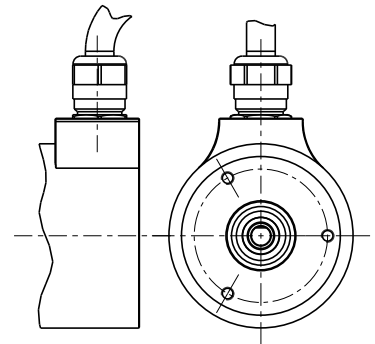
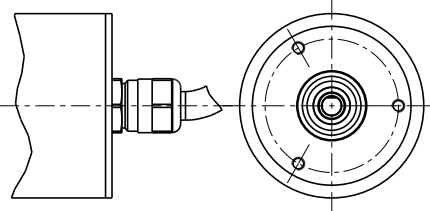
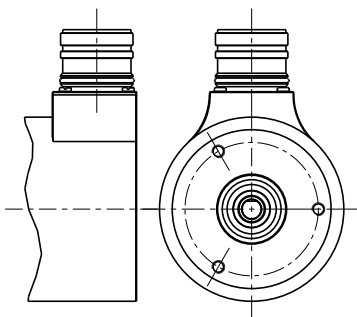
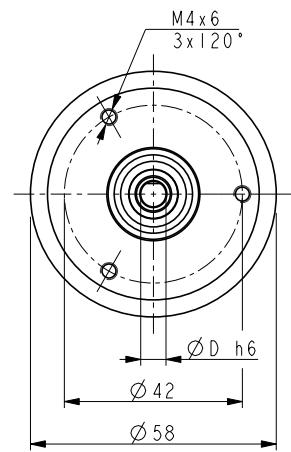
Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305



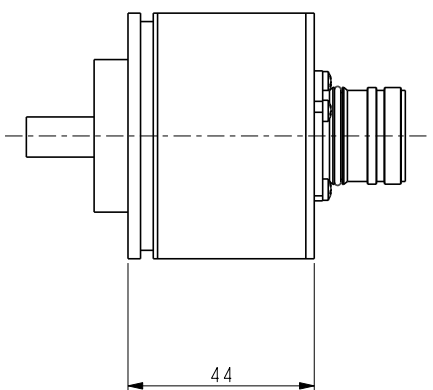
SS1



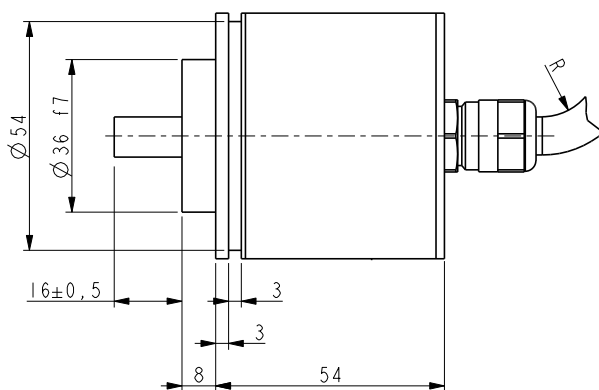
BIT PARALLEL



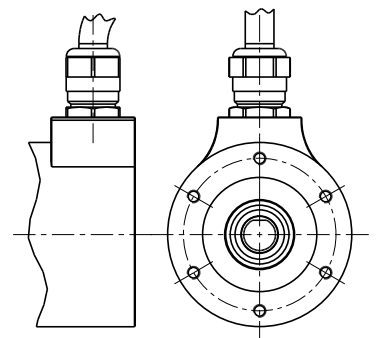
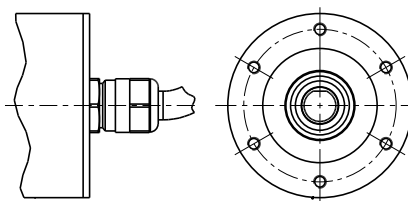
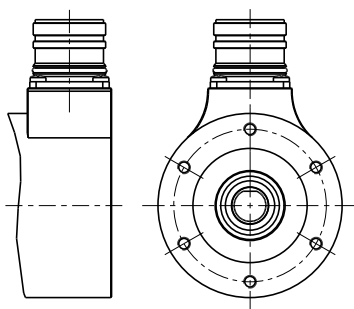
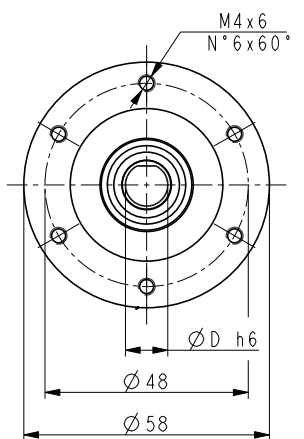
EM58



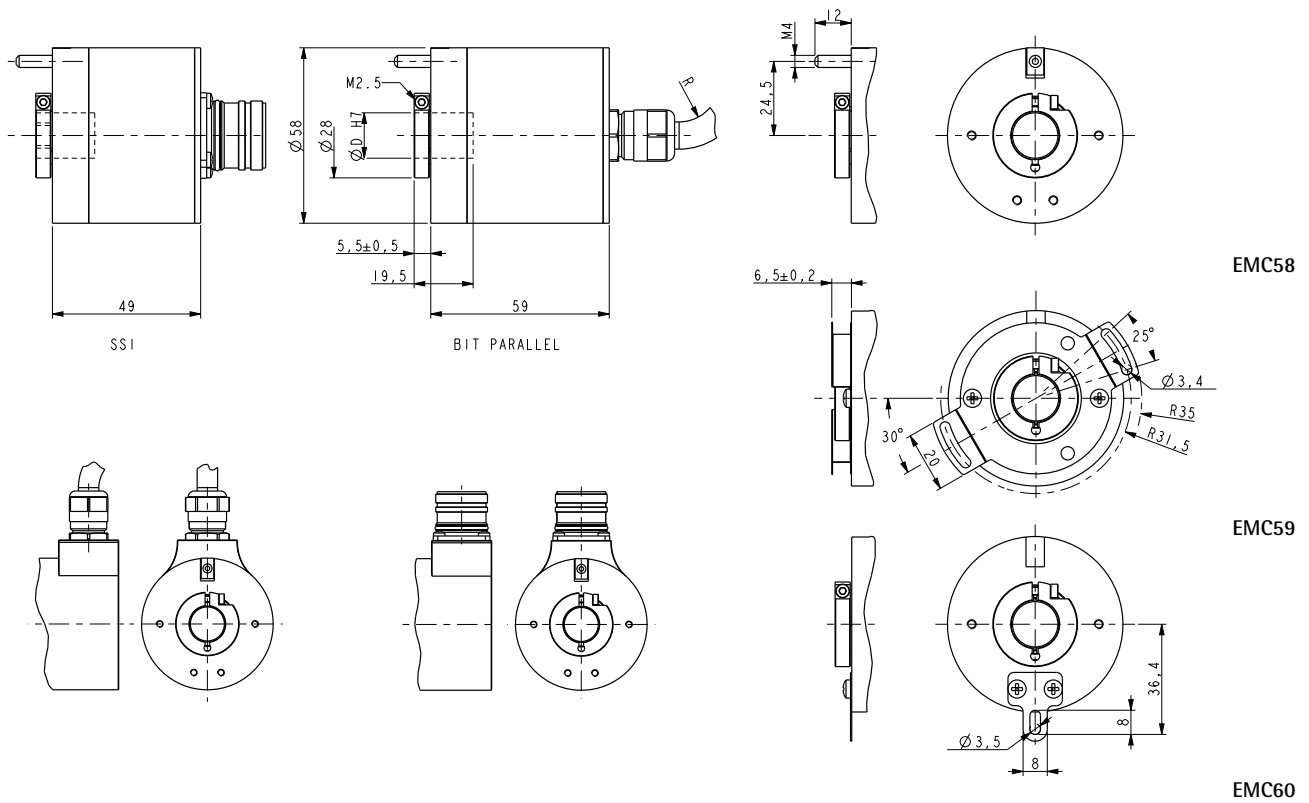
SS1



BIT PARALLEL



EM58S



Order code - Bit parallel output

EM58 EM58S	EMC58 EMC59 EMC60	XX (a)	/	XXXX (b)	X (c)	-	X (d)	-	XX (e)	X (f)	X (g)	X (h)	XXX (i)	/Sxxx (j)
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(a) RESOLUTION 08 = 256 cpr 09 = 512 cpr 10 = 1024 cpr 11 = 2048 cpr 12 = 4096 cpr 13 = 8192 cpr (b) REVOLUTIONS 16 = 16 turns 256 = 256 turns 4096 = 4096 turns (c) OUTPUT CODE B = Binary G = Gray	(d) OUTPUT CIRCUITS N = NPN o.c. P = PNP o.c. Y = Push-Pull on request: L = LATCH (NPN) M = LATCH (PNP) H = LATCH (Push-Pull) T = TRI-STATE (NPN) U = TRI-STATE (PNP) E = LATCH+TRI-STATE (PNP) F = LATCH+TRI-STATE (NPN)	(e) SHAFT DIAMETER 6 = 6 mm 8 = 8 mm P9 = 9.52mm / 3/8" 10 = 10 mm 12 = 12 mm 14 = 14 mm (EMCxx) 15 = 15 mm (EMCxx) (f) PARITY BIT B = Parity bit (option) (g) OPERATING TEMP. RANGE - = -25°C +85°C (-13°F +185°F) K = -40°C +100°C (-40°F +212°F)	(h) CONNECTION POSITION - = axial R = radial (i) CONNECTIONS L1 = cable output 1 m (standard) Lx = cable output x m V0,2 = 0,2 m cable + MIL 32 pin inline plug W0,2 = 0,2 m cable + DSub 25 pin inline plug (j) CUSTOM VERSION
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Order code - SSI output

EM58 EM58S	EMC58 EMC59 EMC60	XX (a)	/	XXXX (b)	XX (c)	-	XX (d)	-	X (e)	X (f)	X (g)	XXX (g)	/Sxxx (h)
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(a) RESOLUTION 08 = 256 cpr 09 = 512 cpr 10 = 1024 cpr 11 = 2048 cpr 12 = 4096 cpr 13 = 8192 cpr (b) REVOLUTIONS 16 = 16 turns 256 = 256 turns 4096 = 4096 turns	(c) OUTPUT BS = Binary, SSI tree format BA = Binary, SSI LSB aligned GS = Gray, SSI tree format GA = Gray, SSI LSB aligned G5 = Gray, SSI tree format + 1024 PPR AB /AB Push-Pull	(d) SHAFT DIAMETER 6 = 6 mm 8 = 8 mm P9 = 9.52mm / 3/8" 10 = 10 mm 12 = 12 mm 14 = 14 mm (EMCxx) 15 = 15 mm (EMCxx) (e) PARITY BIT B = Parity bit (option)	(f) OPERATING TEMP. RANGE - = -25°C +85°C (-13°F +185°F) K = -40°C +100°C (-40°F +212°F) (g) CONNECTION POSITION - = axial R = radial	(h) CONNECTIONS L1 = cable output 1 m (standard) Lx = cable output x m D0,2 = 0,2 m cable + MIL 7 pin plug P0,2 = 0,2 m cable + MIL 10 pin plug (i) CUSTOM VERSION
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