

ROTACOD

Absolute multi turn encoders with RS485 Modbus interface

Series

EM58 • EM58S • EMC58



- Compact optical multi turn encoder
- Modbus RTU RS485 protocol
- Resolution 4096 cpr x 16384 turns
- Freely programmable via RS485
- Diagnostic LEDs
- High degree of protection, IP67



EM58 • EM58S • EMC59

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)

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:	M12 plug or cable output 2 m (6.56 ft)
Weight:	~ 300 g (10,6 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

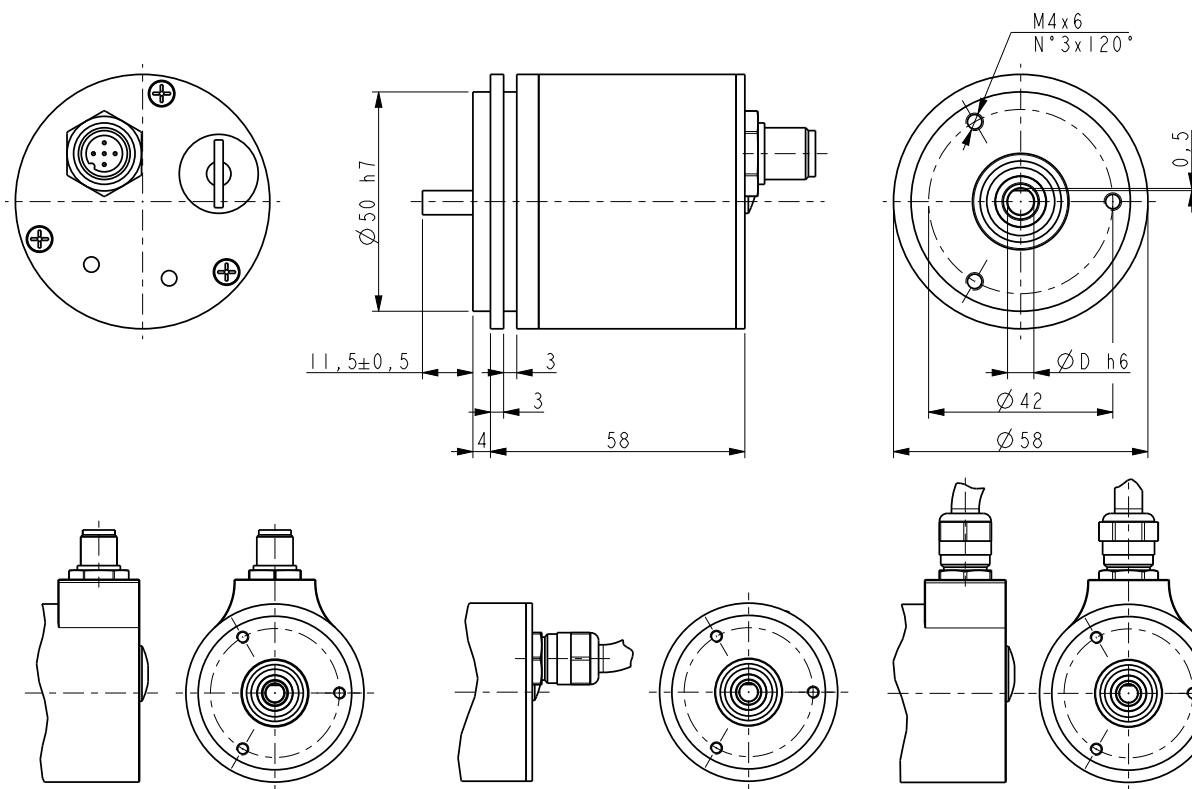
Resolution:	4096 cpr x 16384 turns
Accuracy:	± 0,02°
Output circuits:	Modbus RTU RS485
Output code:	according to: Modbus RTU specifications
Counting frequency:	> 150 kHz
Power supply:	+7,5Vdc ÷ 34Vdc
Power consumption:	1,7 W
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN-61000-4-2 EN-61000-4-4
Optoelectronic life:	> 100.000 h
Functions:	<ul style="list-style-type: none">• Counting direction• Zero setting/Preset<ul style="list-style-type: none">• Resolution• Reset to default parameters<ul style="list-style-type: none">• Firmware update• Saving parameters

MATERIALS

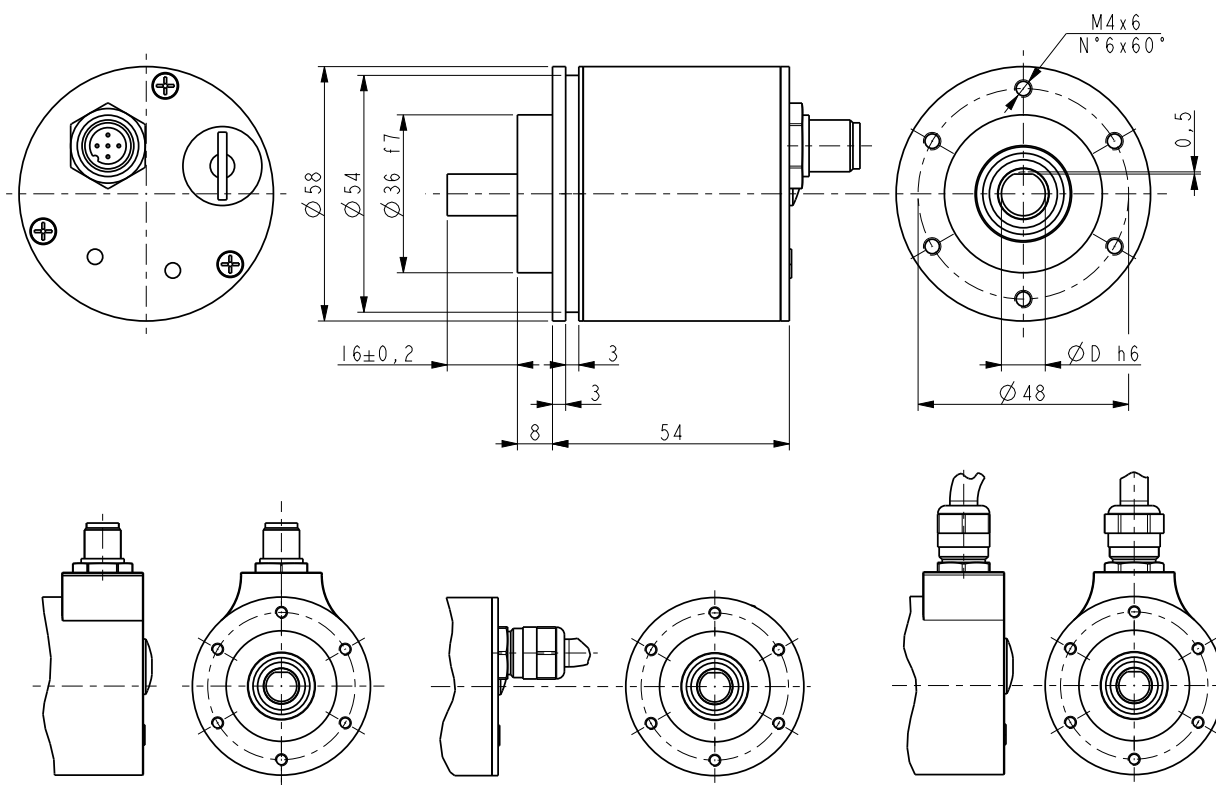
Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305

ACCESSORIES

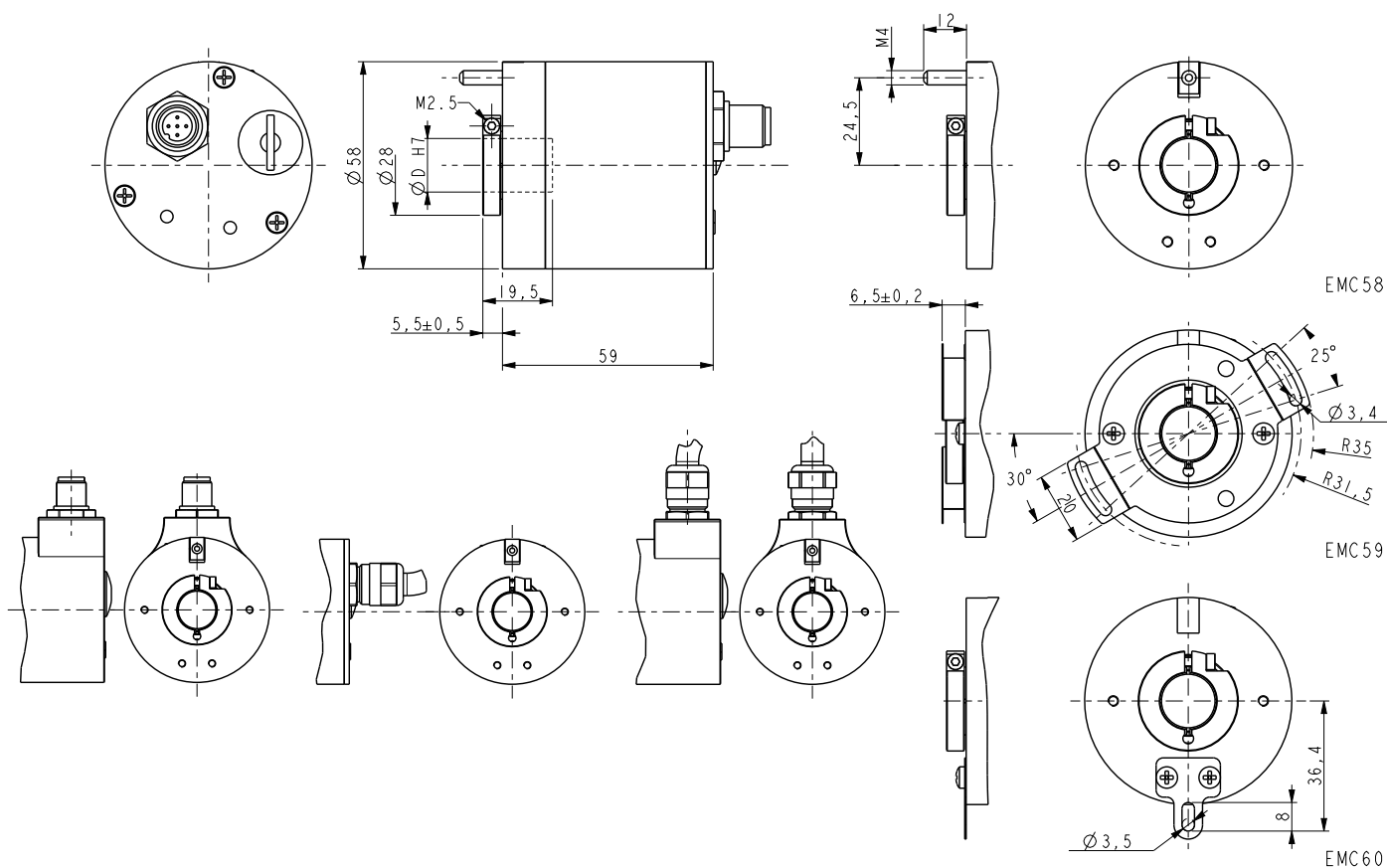
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
E-M12FC:	5 pin M12 mating connector
EC-M12FC-LK-CB-xx:	pre-assembled cable xx m
LKM-386:	fixing clamps
KIT EM58 MB:	M12 to USB programming cable



EM58



EM58S



Order code

EM58	XX	/	XXXXX	XX	-	XX	-	X	XX	/Sxxx
EM58S	Ⓐ		Ⓑ	Ⓒ		Ⓓ		Ⓔ	Ⓕ	Ⓖ
EMC58										
EMC59										
EMC60										

<p>Ⓐ RESOLUTION 12 = 4096 cpr</p> <p>Ⓑ REVOLUTIONS 16384 = 16384 turns</p> <p>Ⓒ OUTPUT MB = Modbus RTU</p>	<p>Ⓓ 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)</p>	<p>Ⓔ CONNECTION POSITION - = axial R = radial</p> <p>Ⓕ CONNECTIONS L2 = cable output 2 m (standard) L5 = cable output 5 m Lx = cable output x m M = M12, 5 pin plug</p>
<p>Ⓖ CUSTOM VERSION</p>		