

ROTACOD

Absolute encoders with Ethernet/IP interface

Series

EM58 • HS58 • HM58 EP

- Single & multi turn Ethernet/IP encoders
- Fast and precise optical sensing
- Resistant against magnetic fields
- 100 Mbit/s half duplex operation
- Integrated hub
- EM58 series general purpose encoder; HS/HM58 for high-end applications
- M12 connections
- Integrated Dip-switches for node setting

EtherNet/IP™



EM58 • HS58 • HM58 EP

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65
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):	40 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Weight:	~ 350 g (12,3 oz)

ELECTRICAL SPECIFICATIONS

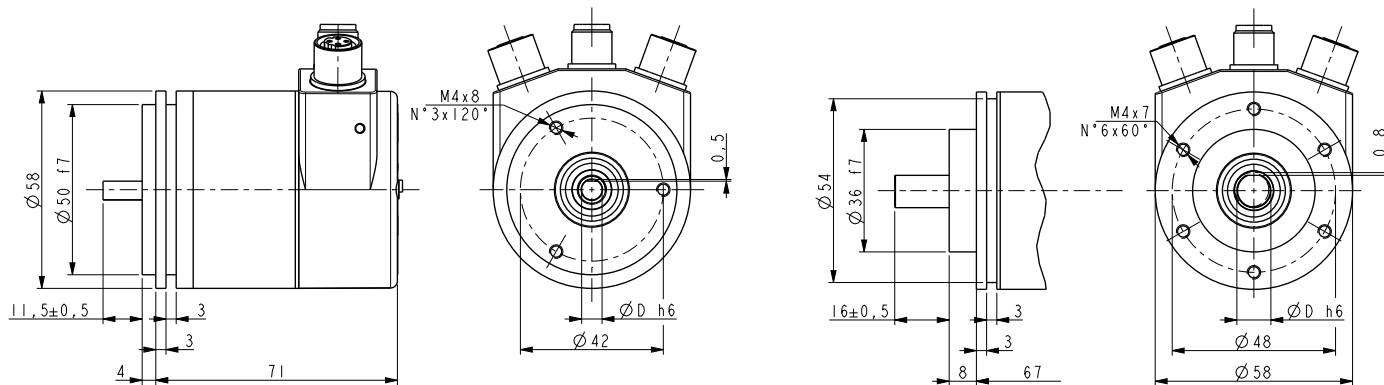
Resolution:	HS: 262144 cpr EM: 8192 cpr x 16384 turns HM: 65536 cpr x 16384 turns
Accuracy:	HS, HM: ± 0,007° - EM: ± 0,5°
Counting frequency:	150 kHz max.
Power supply:	+10V +30V
Power consumption:	3 W max.
Interface:	Ethernet/IP Vol. 2 Ed. 1.22 CIP Spec. Vol. 1 Ed. 3.21 Encoder profile 22h
Programmable parameters:	see user manual
Communication modes:	Sync-mode, Ring redundancy, Segment SDO transfer, Multiplexing
Cycle time:	≥ 200 µs
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 min.

MATERIALS

Flange:	anticorodal, UNI EN AW-6082
Housing:	anticorodal, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305
Light source:	GaAl diodes

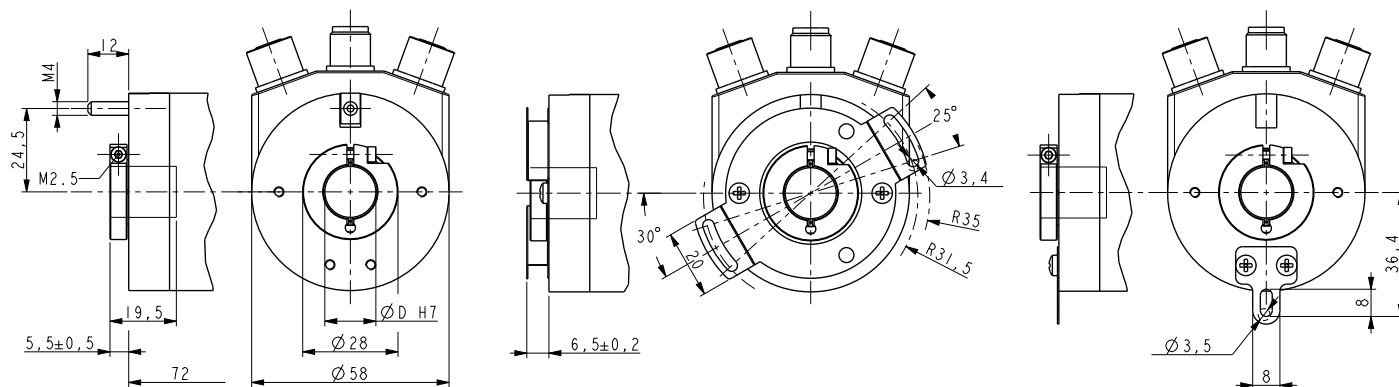
ACCESSORIES

PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps
EC-M12ME-EC-GN-5:	M12 bus in/out cordset 5 m
EC-M12ME-EC-GN-10:	M12 bus in/out cordset 10 m
EXC-M12ME-EC-GN-5-RJ:	M12 + RJ bus in/out cordset 5 m
EXC-M12ME-EC-GN-10-RJ:	M12 + RJ bus in/out cordset 10 m
EC-M12PP-LK-PBS-5:	M12 Pwr cordset 5 m
EC-M12PP-LK-PBS-10:	M12 Pwr cordset 10 m
E-M12FC:	M12 connector (power supply)
E-M12MEC:	M12 connector (bus IN/OUT)



EM58 • HS58 • HM58 EP

EM58S • HS58S • HM58S EP



EMC58 • HSC58 • HMC58 EP

EMC59 • HSC59 • HMC59 EP

EMC60 • HSC60 • HMC60 EP

Order code - Single turn

HS58	XX	/	EP	-	XX	/Sxxx
HS58S	Ⓐ				Ⓑ	Ⓒ
HSC58						
HSC59						
HSC60						

Order code - Multi turn

HM58	EM58	XX/XXXXX	EP	-	XX	/Sxxx
HM58S	EM58S	Ⓐ			Ⓑ	Ⓒ
HMC58	EMC58					
HMC59	EMC59					
HMC60	EMC60					

Ⓐ RESOLUTION	Ⓑ SHAFT DIAMETER	Ⓒ CUSTOM VERSION
18 = 262144 cpr	6 = 6 mm	
	8 = 8 mm	
	P9 = 9.52 mm, 3/8"	
	10 = 10 mm	
	12 = 12 mm	
	14 = 14 mm (HSCxx)	
	15 = 15 mm (HSCxx)	

Ⓐ RESOLUTION	10 = 10 mm	Ⓒ CUSTOM VERSION
13/16384 = 8192 cpr x 16384 turns (EMxx)	12 = 12 mm	
16/16384 = 65536 cpr x 16384 turns (HMxx)	14 = 14 mm (EMCxx, HMCxx)	
	15 = 15 mm (EMCxx, HMCxx)	
Ⓑ SHAFT DIAMETER		
6 = 6 mm		
8 = 8 mm		
P9 = 9.52 mm, 3/8"		