

ROTACOD

Absolute encoders with Profinet interface

Series

EM58 • HS58 • HM58 PT



- Single & multi turn Profinet encoders
- Fast and precise optical sensing
- Encoder profile PNO No 3.162 V4.1
- Dynamically assigned IP address via DCP



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

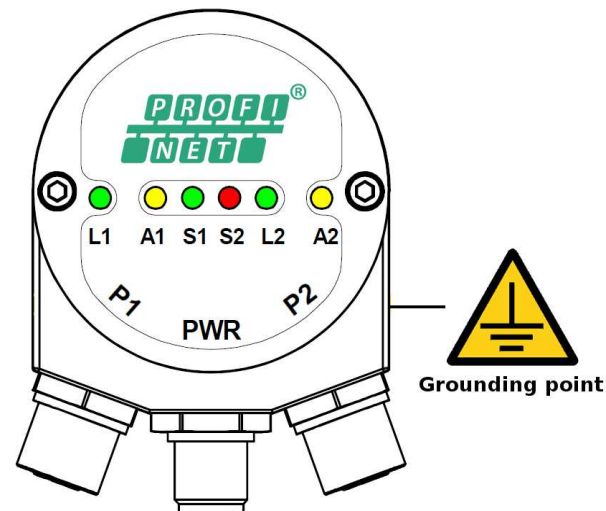
Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Weight:	~ 350 g (12,3 oz)

ELECTRICAL SPECIFICATIONS

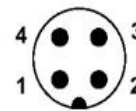
Resolution:	HS58xxx: 262144 cpr EM58xxx: 8192 cpr x 16384 turns HM58xxx: 65536 cpr x 16384 turns
Accuracy:	HS, HM: ± 0,007° - EM: ± 0,5°
Counting frequency:	150 kHz max.
Power supply:	+10V +30V
Power consumption:	1,7 W max.
Interface:	Profinet IO
Programmable parameters:	see user manual
Communication modes:	RT2, RT3 (Isochronous)
Cycle time:	≥ 1ms
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



M12 4-pin male connector with A coding is used for power supply.



Description	Pin
+10VDC +30VDC	1
n.c.	2
0VDC	3
n.c.	4

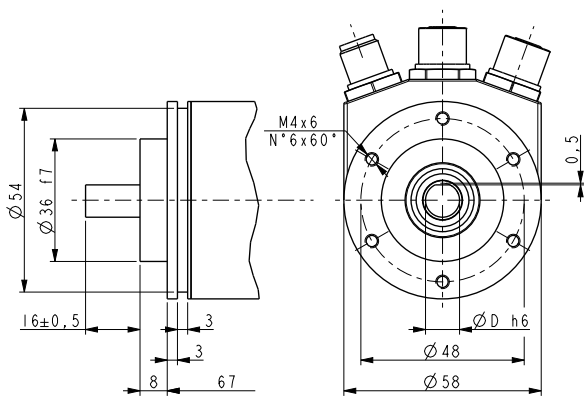
Two M12 4-pin female connectors with D coding are used for Ethernet connection through port 1 and port 2.



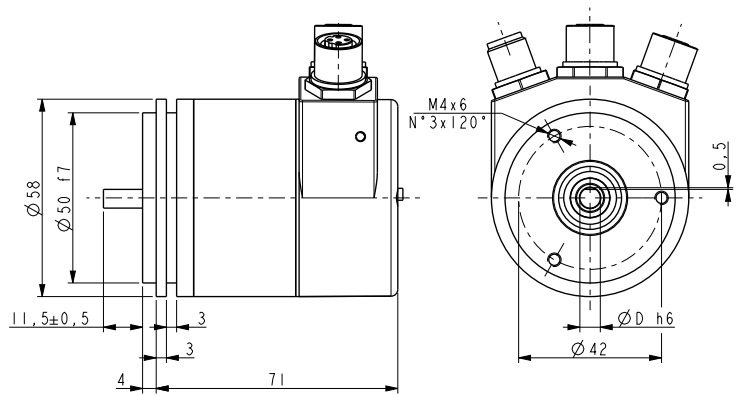
Description	Pin
Tx Data +	1
Rx Data +	2
Tx Data -	3
Rx Data -	4

ACCESSORIES

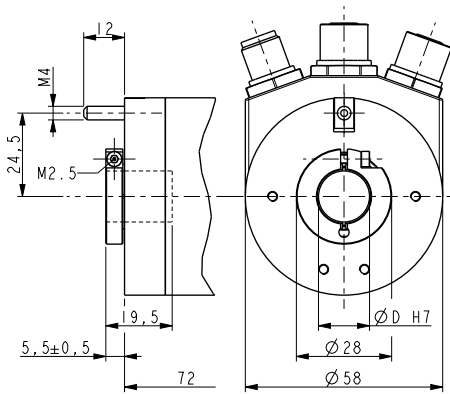
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps
EC-M12ME-EC-GN-xx:	M12 cordset with x m cable
EC-M12PP-LK-PBS-xx:	M12 power supply cordset with x m cable



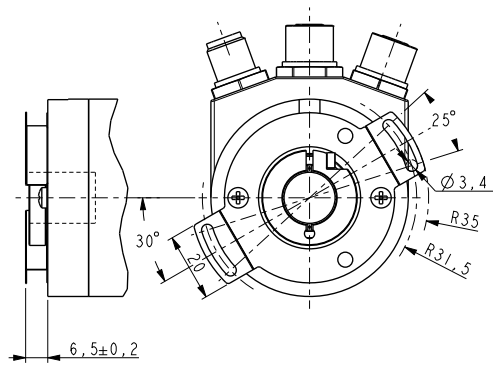
EM5801 • HS5801 • HM5801 PT



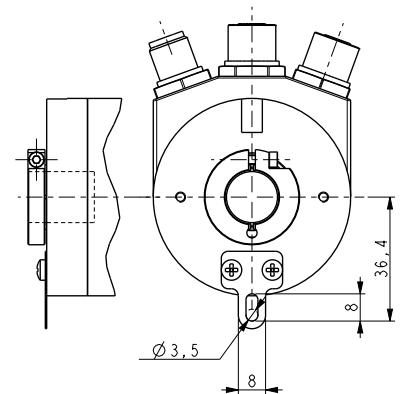
EM5802 • HS5802 • HM5802 PT



EM5803A • HS5803A • HM5803A PT



EM5803B • HS5803B • HM5803B PT



EM5803C • HS5803C • HM5803C PT

Order code - Single turn

HS58xxx	XX	/	PT	-	XX	/Sxxx
	(a)				(b)	(c)

(a) RESOLUTION	(b) 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 (HS5803x)	
	15 = 15 mm (HS5803x)	

Order code - Multi turn

HM58xxx	XX/XXXXX	PT	-	XX	/Sxxx
EM58xxx	(a)			(b)	(c)

(a) 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 (EM5803x, HM5803x)	
	15 = 15 mm (EM5803x, HM5803x)	
(b) SHAFT DIAMETER		
6 = 6 mm		
8 = 8 mm		
P9 = 9.52 mm, 3/8"		