ROTAPULS ROTACOD

Absolute multi turn encoders

Series **EMC59K**

- Stainless steel housing
- SSI or programmable analogue output
- 0-5V, 0-10V, -5/+5V, -10/+10V, 4-20mA, 0-20mA, 0-24mA
- Teach-in function
- Programmable overrun mode
- RS232 service interface
- Programmable via USB cable with IF92 interface

EMC59K

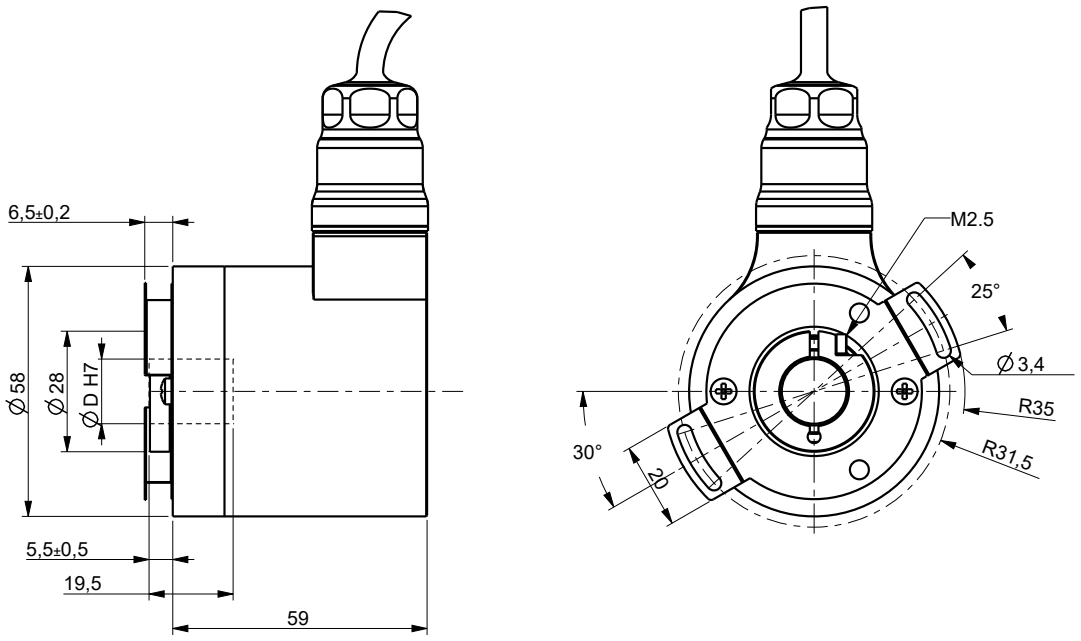
ENVIRONMENTAL SPECIFICATIONS	
Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP67, IP65 shaft side
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)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

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
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 rotational speed:	12000 rpm, 9000 rpm continuous operation
Electrical connections:	cable output 1 m (3.3 ft)
Weight:	~ 500 g (17,6 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS	
Resolution:	SSI: 8192 cpr x 16384 turns max. Analogue: 4096 cpr x 16384 turns
Output circuits:	SSI Analogue: (programmable) 0-5V, 0-10V, -5/+5V, -10/+10V 4-20mA, 0-20mA, 0-24mA
Counting frequency:	> 150 kHz
Power supply:	+10Vdc +30Vdc, +13Vdc +30Vdc
Power consumption:	SSI: 1 W Analogue: 1,3 W max.
Start-up time:	~ 40 ms
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Functions (analogue version):	• Programmable resolution • Teach-in of resolution • Counting direction (programmable + input) • Zero setting (programmable + input) • Programmable overrun

MATERIALS	
Housing (all parts):	stainless steel
Shaft:	stainless steel, non magnetic, UNI EN 4305

ACCESSORIES	
BR1:	reducing sleeves
IF92:	Programming box for EMC59K PA



EMC59K

Order code - SSI output

EMC59K	XX ⓐ	-	XX ⓑ	-	XXX ⓒ	-	XX ⓓ	-	X ⓔ	X ⓕ	-	X ⓖ	XXXX ⓗ	/Sxxx ⓘ

ⓐ **BIT SINGLETURN**
10 = 1024 cpr
12 = 4096 cpr
13 = 8192 cpr

ⓑ **REVOLUTIONS**
12 = 4096 turns
14 = 16384 turns
(16384 only with SSI LSB aligned)

ⓒ **INTERFACE / POWER SUPPLY**
BS2 = Binary, SSI tree format, +10Vdc +30Vdc
BA2 = Binary, SSI LSB aligned, +10Vdc +30Vdc
GS2 = Gray, SSI tree format, +10Vdc +30Vdc
GA2 = Gray, SSI LSB aligned, +10Vdc +30Vdc

ⓓ **SHAFT DIAMETER**
14 = 14 mm
15 = 15 mm

ⓔ **PROTECTION**
P = IP67, IP65 shaft side

ⓕ **OPERATING TEMP. RANGE**
T = -25°C +85°C (-13°F +185°F)
K = -40°C +100°C (-40°F +212°F)

ⓖ **CONNECTION POSITION**
R = radial

ⓗ **CONNECTION TYPE & CABLE LENGTH**
L010 = cable output 1 m (standard)
Lxx0 = cable out. x m (max. length 10m)
L100 = cable output 10 m

ⓘ **CUSTOM VERSION**

Order code - Analogue output

EMC59K	XX-XX ⓐ	-	XXX ⓑ	-	XX ⓒ	-	X ⓓ	X ⓔ	-	X ⓕ	XXXX ⓖ	/Sxxx - /Pxxx ⓗ

ⓐ **RESOLUTION**
(BIT SINGLETURN - BIT MULTITURN)
12-14 = 12x14 bit (4096 cpr x 16384 turns)

ⓑ **INTERFACE / POWER SUPPLY**
PA2 = Programmable analogue, +13 +30Vdc

ⓒ **SHAFT DIAMETER**
14 = 14 mm
15 = 15 mm

ⓓ **PROTECTION**
P = IP67, IP65 shaft side

ⓔ **OPER. TEMP. RANGE**
T = -25°C +85°C (-13°F +185°F)

ⓕ **CONNECTION POSITION**
R = radial

ⓖ **CONNECTION TYPE & CABLE LENGTH**
L010 = cable output 1 m (standard)
Lxx0 = cable out. x m (max. length 10m)
L100 = cable output 10 m

ⓗ
/Sxxx: Custom version
/Pxxx: Factory programmed encoder on customer request

Document release	Date	Description
1.0	6.02.2025	First issue