www.emetaencoders.com

MA120 - SERIES

HEAVY DUTY INCREMENTAL ENCODER Ø 58 MM

Encoder with Ø 36mm round flange and 3 mounting holes M4

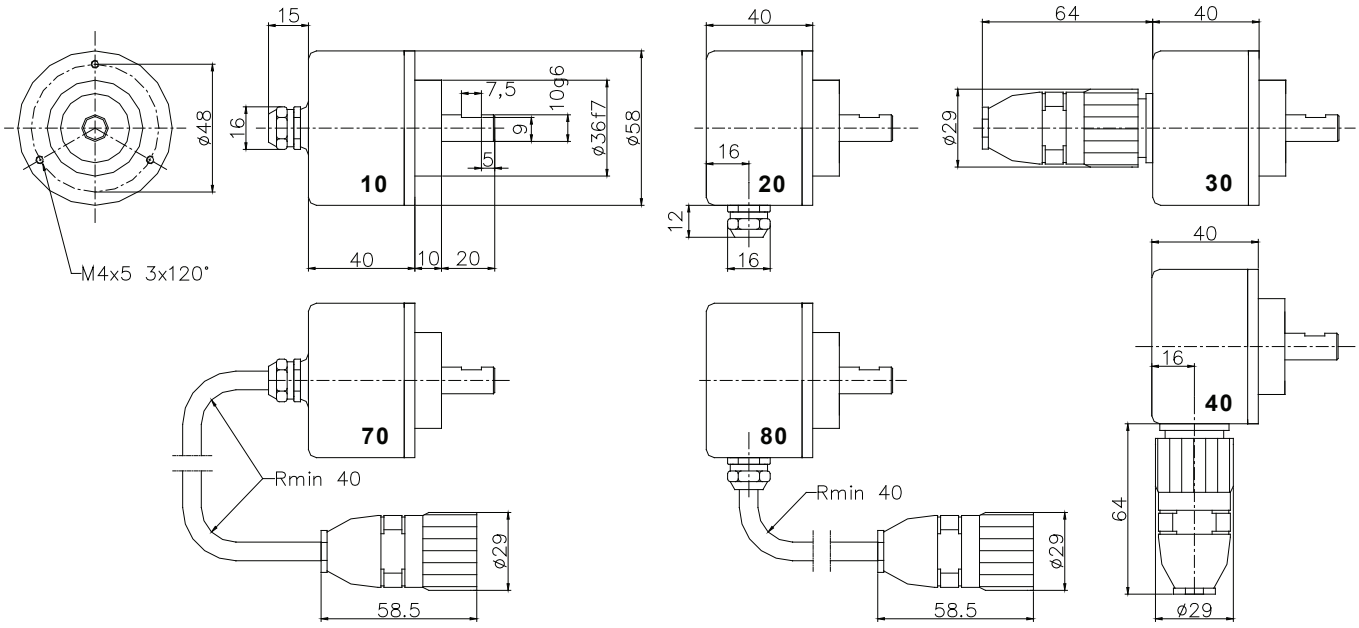
- Ø 58 mm
- Ø 6, 8 mm solid shaft without face or 10 mm with face
- Enlarged sturdy bearings
- Short circuit and reversed polarity proof
- Dust and splash proof IP65
- Standard 5-30V Power Supply, 300kHz
  2 Square Wave Signals
  Marker Pulse, Inverted Signals and Sense
- Options 5-30V Power Suppy, Open Collector, 300kHz
  Customization upon request

emeta encoders

Flexible and durable encoder for demanding applications

CE Conforms to european EMC directive 89/336/EEC standards:
EN61000-6-4 emission in industrial environments,
EN61000-6-2 immunity in industrial environments.

INCREMENTAL ENCODER MODEL MA120

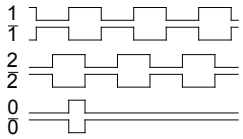


ELECTRICAL SPECIFICATION, STANDARD

Supply voltage	Vcc 5–30 V
Current consumption	Max 40 mA without load
Output circuit	Linedriver RS422A compatible
Low level output volt.	Max <0,5 V at 20 mA load and 20°C
High level output volt.	Min >Vcc-1V at 20mA load and 20°C
Short circuit protected	Yes
Polarity protected	Yes
Transient protected	Yes
Max load	70 mA

OUTPUT SIGNALS, STANDARD

CCW rotation viewed from shaft end



SIGNAL ACCURACY

Dividing error max	±50 el°
Channel separation	90 ±25 el°
Max frequency	300 kHz
Operating temperature	-40° to +80°C

MECHANICAL SPECIFICATION

Housing	Aluminum, electrically conductive for increased interference protection	
Sealing	IP65 dust and splash proof	
Bearings	Permanently greased	
Bearing load at	1 000 rpm:	
Radial	180 N	Gives 50 000 h
Axial	130 N	bearing life
Max rpm	6 000 (12 000)	
Vibration	20g 20-2000 Hz	
Chock	200g at 11 ms	
Weight	approx: 275 g (without cable)	

CONNECTIONS

10. Axial cable 1 m, 10x0,25TPUR
20. Radial cable 1 m, 10x0,25TPUR
30. Axial 12-pin male connector CON-FM12P
40. Radial 12-pin male connector CON-FM12P
70. Axial cable 1 m with male connector CON-CF12P
80. Radial cable 1 m with male connector CON-CF12P

FUNCTIONS

	Cable	Connector	Cable/Conn
1	Brown	5	5
2	Grey	8	8
0	Red	3	3
1 inv	Green	6	6
2 inv	Pink	1	1
0 inv	Black	4	4
+V	Brown/Green	12	12
0 V	White/Green	10	10
+V sense	Blue	2	2
0V sense	White	11	11
Gnd	Shield	Chassi	9

MATING CONNECTORS

For 30 and 40, CON-CF12S	(for ø4-ø6 mm cable)
For 70 and 80, CON-CM12S	(for ø4-ø6 mm cable)

ORDERING KEY

MA120 10 2048 10 X

- Model
- Shaft 6, 8 or 10 mm
- Pulse rate 1-5 000
- Connection
- X= meter cable

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