



Solid mechanical construction  
 Protection to IP 65, IP 66  
 Electronic preset  
 SMD technology



## Absolut Manual Encoder MEA 70 SSI

Manual pulse generator with magnetic click-stop with Absolute Encoder, Single-turn or Multi-turn

### Resolution

#### Resolution (Steps/360°):

4096 = 12 bit

8192 = 13 bit

65536 = 16 bit

### Measuring range

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Single-Turn

1 turn

Multi-Turn

4096 turns = 12 bit

16384 turns = 14 bit

### Type explanation

#### MEA70 EAM57-30G-30-D-SC12

Encoder type	Absolute
Case diameter	ø 58 mm
Number of bits	12 = 12 bits x 1 turn 13 = 13 bits x 1 turn 16 = 16 bits x 1 turn 24 = 12 bits x 4096 turns 25 = 13 bits x 4096 turns 28 = 16 bits x 4096 turns 26 = 12 bits x 16384 turns 27 = 13 bits x 16384 turns 30 = 16 bits x 16384 turns
Single-turn	Yes
Multi-turn	Yes
Electronic adjustment	Yes
Supply voltage	30 = 10..30 VDC
Output driver	D-SSI DI
Position of connection	R S
Connector	C12 = 12 pins M23

## Technical data

### Mechanical data

Graduation	1 - 100
Torque	5 .. 20 Ncm
shaft loading	? 50 N radial ? 20 N axial
Operational life of ball bearings	> 6 x 10 <sup>9</sup> revolutions
Weight	? 1,5 kg

### Environmental conditions

Vibration	100 m/s <sup>2</sup> (10 ... 1000 Hz)
Shock	300 m/s <sup>2</sup> (11 ms)
Operating temperature	-40 ... +85°C
Storage temperature	-40 ... +85°C
Atmospheric humidity	? 98% r.h.
Protection class	IP 65 (DIN 40050/IEC 144) IP 66 (optional)

### Electrical data

Scanning type	Optical, without contact
Transmitter, infrared	LED
Receiver	Photo-Array
Scanning frequency LSB	800 kHz
Measurement accuracy	±½ LSB (12 bit) ± 1 LSB (13 bit) ± 2 LSB (16 bit)
Supply voltage	V <sub>cc</sub> = 10...30 VDC
Power consumption	? 90 mA (V <sub>cc</sub> = 24 V)

### Electrical connections

#### SSI

Interface	RS485
Clock	Optocoupler

#### Incremental outputs

1024 pulses per revolution	AA+BB/90° RS422 (optional)
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#### Inputs

Rotational direction	CW/CCW
Electronic adjustment	RESET (optional)

## Connector 12 pins M23

Connection	Signal
Pin 1	+Vcc
Pin 2	0 V GND
Pin 3	Clock+
Pin 4	Data+
Pin 5	RESET <sup>1)</sup>
Pin 6	Data-
Pin 7	Clock-
Pin 8	A+ <sup>2)</sup>
Pin 9	CW/CCW
Pin 10	B+ <sup>2)</sup>
Pin 11	B- <sup>2)</sup>
Pin 12	A- <sup>2)</sup>

1) optional

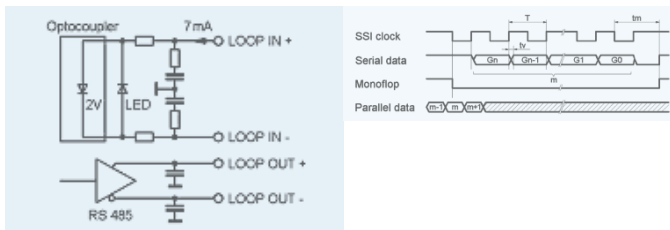
2) nur bei Ausgangstreiber "DI"

## Cable

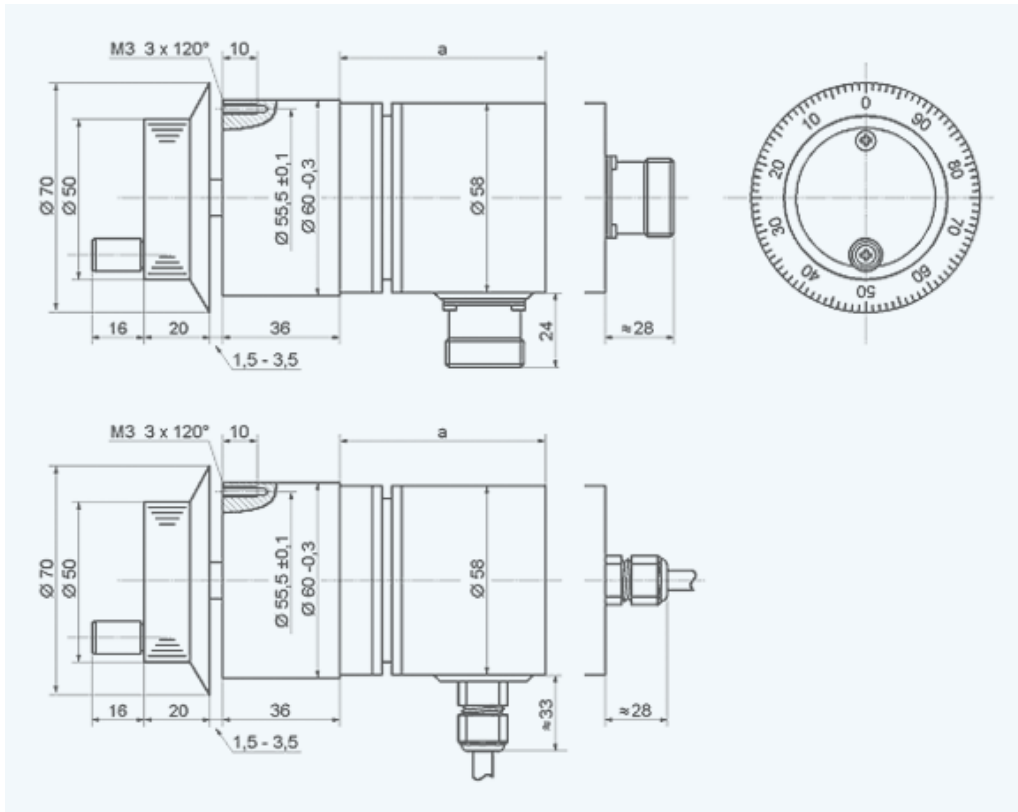
Wire colour	Signal
White	0 V GND
Brown	+Vcc
Green	Clock+
Yellow	Clock-
Grey	Data+
Pink	Data-
Red	CW/CCW
Black	RESET <sup>1)</sup>

1) optional

## Channel schematic



## Outline drawing



Version MA 404-611 · Subject to change

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