

Standard No Shaft Encoder EDH 120

Optical incremental encoder
Encoder with hollow shaft up to \varnothing 55 mm

Resolution

Resolution (Pulses/Revolution):

1024	1250	2500	3600
10000			

Every other resolution up to 500 000 on request

Type explanation

EDH 120-6-2500-05-D-S/ \varnothing 55

Encoder type	Incremental
Hollow shaft	Yes
Flange diameter	\varnothing 120 mm
Case diameter	\varnothing 120 mm
Number of channels	3 = A + B + M 6 = AA + BB + MM
Resolutions	xxxx = Impulse pro Umdrehung
Supply voltage	05 = 5 VDC \pm 5% 30 = 10..30 VDC
Output driver	D-RS422 P S
Position of connection	S
Shaft diameter	\varnothing 55 mm

Technical data

Mechanical data

Rotational speed	$\leq 4000 \text{ min}^{-1}$
Torque	$\leq 34 \text{ Ncm}$
Breakaway torque	$\leq 45 \text{ Ncm}$
Loading of bearings	20 N radial 10 N axial
Weight	$\leq 1,5 \text{ kg}$

Environmental conditions

Vibration	200 ms^{-2} (20 ... 2000 Hz)
Shock	2000 ms^{-2} (11 ms)
Operating temperature	0 .. +80°C standard -20 .. +110°C optional
Atmospheric humidity	$\leq 85\%$ r.h.
Protection class	IP 52 (DIN 40050/IEC144)

Electrical data

Scanning type	Optical, without contact
Transmitter, infrared	LED
Receiver	Photo-Transistor
Measurement accuracy	$\pm 1'$ standard $\pm 5''$ optional
Supply voltage	$V_{cc} = 5 \text{ VDC} \pm 5\%$ $V_{cc} = 10...30 \text{ VDC}$
Power consumption	200 mA max.
Output frequency	$\leq 300 \text{ kHz}$ (Output D) $\leq 160 \text{ kHz}$ (Output P, S)
Signal level	High $> V_{cc} - 2 \text{ V}$ (Output D, P) Low $< 0,5 \text{ V}$ (Output D, P) Analog 1 V_{ss} (Output S)
Load capacity of the outputs	30 mA

Cable

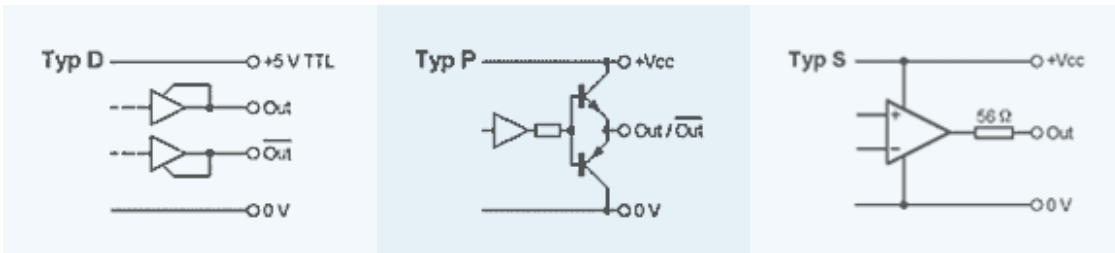
Wire colour

Wire colour	Signal
Brown 0,5 mm ²	+Vcc
Brown	+Vcc Sense ¹⁾
White 0,5 mm ²	0 V GND
White	0 V Sense
Brown	Signal A+
Green	Signal A- ²⁾
Grey	Signal B+
Pink	Signal B- ²⁾
Red	Signal M+
Black	Signal M- ²⁾
Shield	N.C.

1) nur bei Vcc = 5 VDC TTL

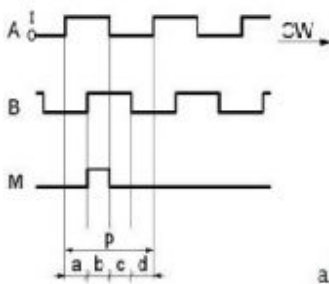
2) nur bei 6 Ausgangskanälen

Output driver



Output channels / Output signals

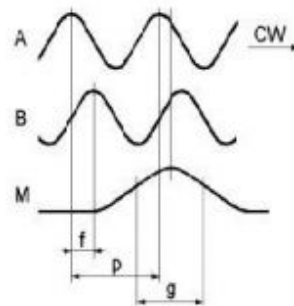
Rechteck-Signale



$$p = 360^\circ$$

$$a, b, c, d = 90^\circ \pm 10^\circ$$

Sinus-/Cosinus-Signale



$$p = 360^\circ$$

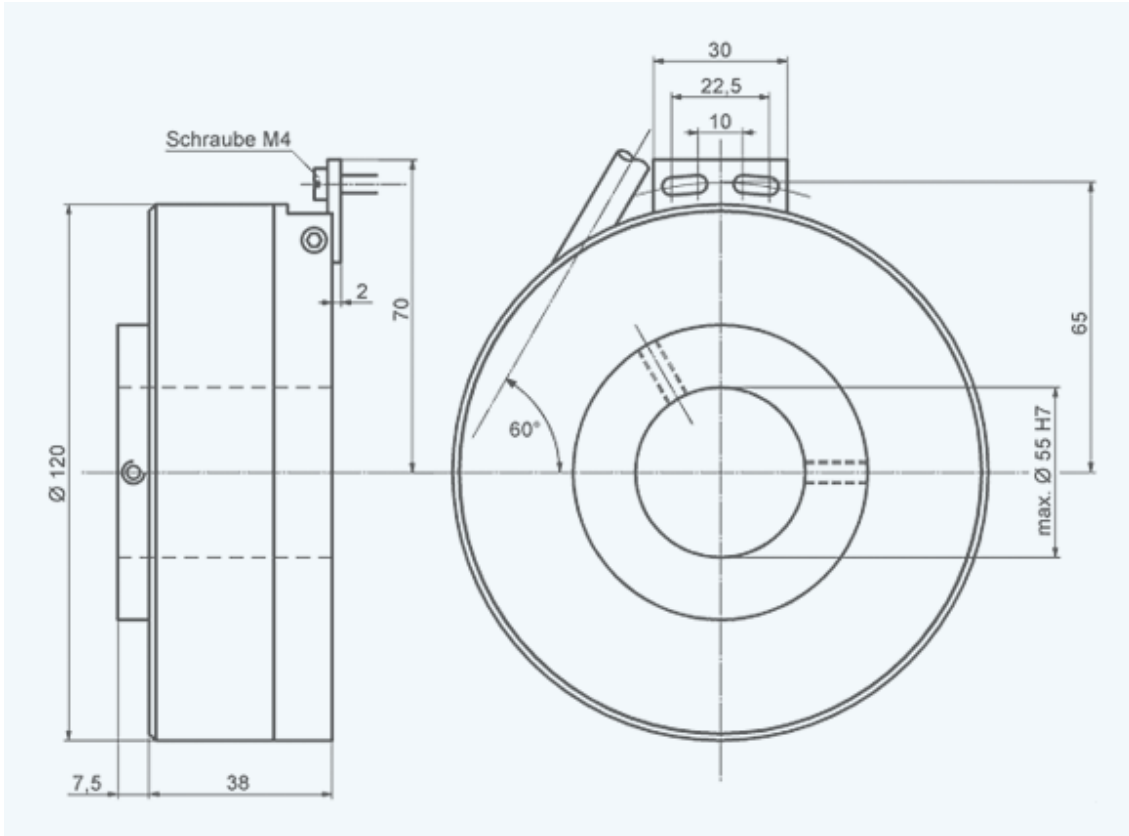
$$f = 90^\circ \pm 10^\circ$$

$$g = 90 - 360^\circ$$

EB10-505

Änderungen vorbehalten / Soumis aux changements / Subject to change

Outline drawing



Version E 610-505 · Subject to change

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