

Standard No Shaft Encoder EDH 110

Optical incremental hollow shaft encoder
 available with Sine/Cosine signals
 hollow shaft diameter up to 27 mm
integrated stator coupling

Resolution

Resolution (Pulses/Revolution):			
1	4	10	12
50	100	128	157
180	200	250	256
350	360	375	400
500	512	600	720
1000	1024	1250	1500
1800	2000	2048	2160
2500	3600	4000	4096
4500	5000	5400	6000
7200	9000	10000	18000

Every other resolution up to 900 000 on request

Type explanation

EDH 110-6-10000-05-D-S/Ø27	
Encoder type	Incremental
Hollow shaft	Yes
Flange diameter	ø 110 mm
Case diameter	ø 90 mm
Number of channels	3 = A + B + M 6 = AA + BB + MM
Resolutions	xxxx = Impulse pro Umdrehung
Supply voltage	05 = 5 VDC ±5% 30 = 10 - 30 VDC
Output driver	D-RS422 P S
Position of connection	S
Shaft diameter	ø 27 mm

Technical data

Mechanical data

Rotational speed	$\leq 6000 \text{ min}^{-1}$
Torque	$\leq 3 \text{ Ncm}$
Breakaway torque	$\leq 5 \text{ Ncm}$
Loading of bearings	20 N radial 10 N axial
Angular acceleration	$\leq 10^4 \text{ rad/sec}^2$
Weight	$\leq 1,1 \text{ kg}$

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 -42 .. +110°C optional
Atmospheric humidity	$\leq 85\% \text{ r.h.}$
Protection class	IP 00 IP 64 (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	$\leq 160 \text{ kHz}$ (Output P, S) $\leq 300 \text{ kHz}$ (Output D)
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	20 mA

Table 3 channels

Wire colour	Signal
Brown/Green	+Vcc
Brown	+Vcc Sense ¹⁾
White/Green	0 V GND
White	0 V Sense
Brown	Signal A
Grey	Signal B
Red	Signal M
Shield	N.C.

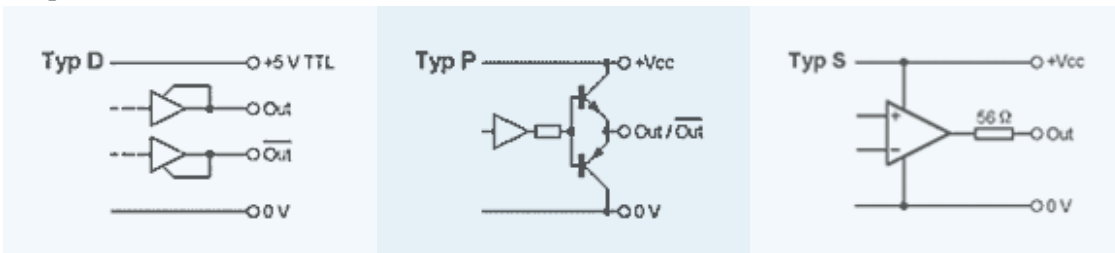
1) nur bei Vcc = 5 VDC TTL

Table 6 channels

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

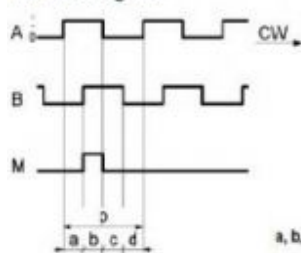
1) nur bei Vcc = 5 VDC TTL

Output driver



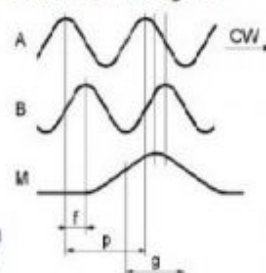
Output channels / Output signals

Rechteck-Signale



$p = 360^\circ$
 $a, b, c, d = 90^\circ \pm 10^\circ$ standard
 $90^\circ \pm 5^\circ$ optional

Sinus-/Cosinus-Signale

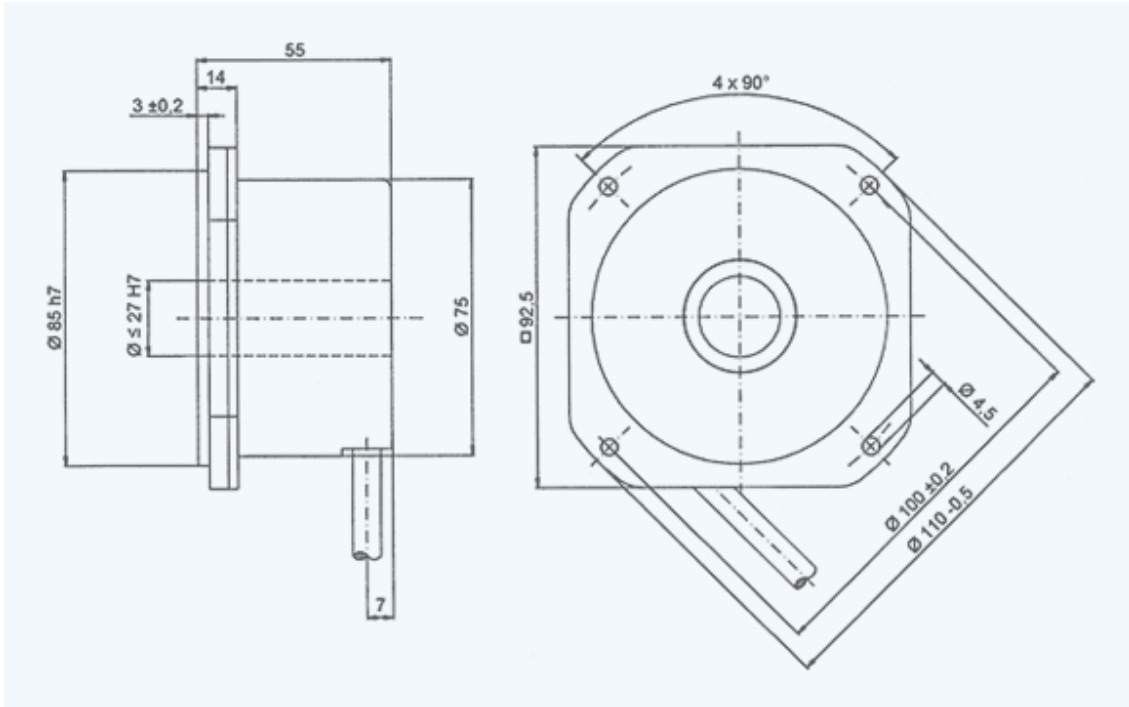


$p = 360^\circ$
 $f = 90^\circ \pm 10^\circ$ standard
 $90^\circ \pm 20^\circ$ optional
 $g = 90 - 360^\circ$

E611-211

Änderungen vorbehalten / Soumis aux changements / Subject to change

Outline drawing



Version E 611-211 · Subject to change

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