



EH 38 A / B / D

SOLID SHAFT INCREMENTAL ENCODER

MAIN FEATURES

Miniaturized \varnothing 38 mm encoder series for application in small devices.
Recommended when a minimal size is required even providing excellent performances.

- 3 channel encoder (A / B / Z) up to 1024 ppr
- Power supply up to +24 VDC with several electronic interfaces available
- Up to 100 kHz output frequency
- Cable output, connectors available on cable end
- Solid shaft diameter up to 6 mm
- Mounting by clamping or centering square flange



ORDERING CODE

EH 38A 500 S 8/24 P 6 X 3 PR .XXX

SERIES
incremental encoder series EH

MODEL
clamping flange \varnothing 20 mm 38A
centering square flange \varnothing 20 mm 38B
centering square flange \varnothing 17,46 mm 38D

RESOLUTION
ppr from 50 to 1024
see table for pulses availability

ZERO PULSE
without zero pulse S
with zero pulse Z

POWER SUPPLY
5 V DC 5
8 ... 24 V DC 8/24

ELECTRONIC INTERFACE
NPN N
NPN open collector C
push-pull P
push-pull protected (AEIC-7272) PC
line driver L

SHAFT DIAMETER
mm 6

ENCLOSURE RATING
IP 54 X

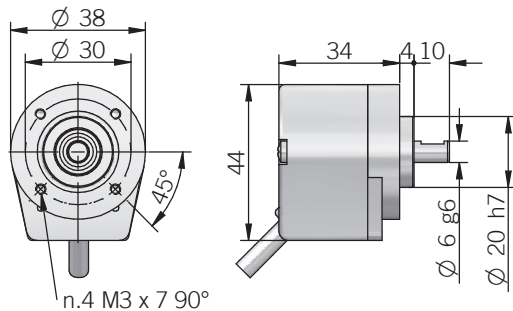
MAX ROTATION SPEED
3000 rpm 3

OUTPUT TYPE
radial cable (standard length 0,5 m) PR

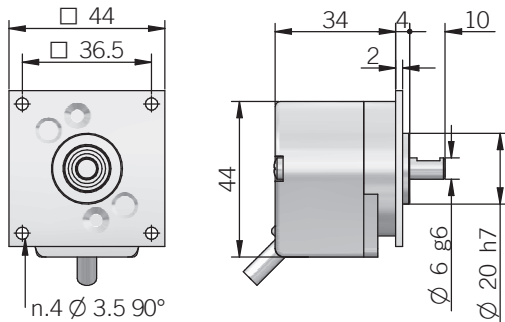
VARIANT
custom version XXX



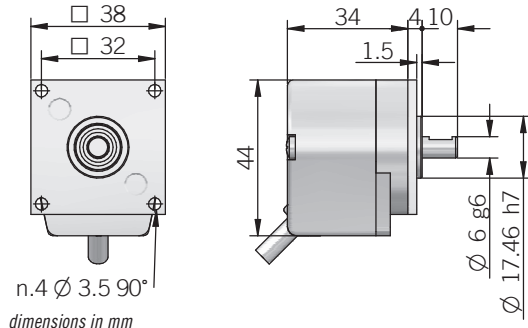
EH 38 A



EH 38 B



EH 38 D



OPTICAL SOLID SHAFT INCREMENTAL ENCODERS | EH 38 A / B / D

ELECTRICAL SPECIFICATIONS

Resolution	from 50 to 1024 ppr
Power supply	5 = 4,5 ... 5,5 V DC 8/24 = 7,6 ... 25,2 V DC (reverse polarity protection only with PC electronic)
Current consumption without load	100 mA max
Max load current	N / C / P / PC = 50 mA / channel L = 20 mA / channel
Output type*	NPN / NPN open collector / push-pull / line driver
Max output frequency	100 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-1 IEC 61000-6-4

*output levels according to power supply, for further details please see under Technical basic section

MECHANICAL SPECIFICATIONS

Shaft diameter	$\varnothing 6$ mm
Enclosure rating	IP 54 (IEC 60529)
Max rotation speed	3000 rpm
Max shaft load	5 N axial / radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	$0,05 \times 10^{-6} \text{ kgm}^2$
Starting torque (at +20°C / +68°F)	< 0,01 Nm
Body material	aluminum UNI 5076
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	PA66 glass fiber reinforced
Bearings	2 ball bearings
Bearings life	10^9 revolutions
Operating temperature	-20° ... +70°C (-4° ... +158°F)
Storage temperature	-20° ... +70°C (-4° ... +158°F)
Weight	150 g (5,29 oz)

CONNECTIONS

Function	Cable output N / C / P / PC	Cable output Line driver
+V DC	red	red
0 V	black	black
Ch. A	green	green
Ch. A-	/	brown
Ch. B	yellow	yellow
Ch. B-	/	orange
Ch. Z	blue	blue
Ch. Z-	/	white
⊖	shield	shield

RESOLUTIONS

50* - **100** - **200** - 250 - 256 - 360 - 400 - **500** - **512** - **1000** - 1024

please directly contact our offices for other pulses, preferred resolutions in bold

*available only without zero pulse

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