

Incremental Encoder

IH490

Incremental Slim Design Hollow Shaft Encoder

- Slim Housing Design 49 mm
- Easy Mounted with floating bearing system
- Shaft Bore Diameter from 4 to 8 mm
- Resolution from 1 to 3600 ppr
- Supply Voltage 5 VDC, 4.75-30 VDC, 8-30 VDC



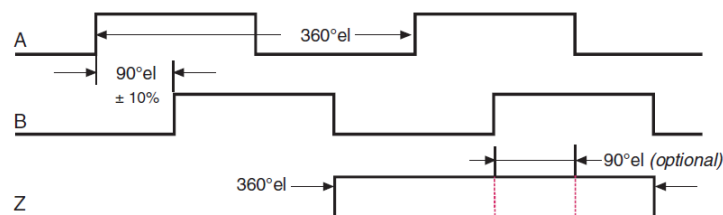
Electrical Specification

Supply Voltage V_{cc}	5 VDC, 4.75 – 30 VDC, 8-30 VDC
Current Consumption (<i>no load</i>)	Max. 40 mA
Output Circuit	Push-Pull, TTL, RS422A compatible
Pulse Frequency	Max. 100 kHz
Signal Level (High)	$V_{cc} - 0.7 V$
Signal Level (Low)	Max. 0.25 V
Short Circuit Protection	100 %
Reverse Polarity Protection per Channel	100 %
ESD (DIN EN61000-4-2)	8 kV
Burst (DIN EN61000-4-4)	2 kV

Mechanical Specification

Material Body & Cover	Aluminum
Material Shaft	Stainless Steel
Max. Speed	6000 RPM
Mass Moment of Inertia	$95 \cdot 10^{-6} \text{ kgm}^2$
Starting Torque (<i>at 25°C</i>)	> 0.04 Nm
Max. Loading on Shaft	Axial 25 N, Radial 25 N
Shock Resistance (<i>6ms</i>)	$\leq 1000 \text{ m/s}^2$
Vibration Resistance (<i>55-2000 Hz</i>)	$\leq 200 \text{ m/s}^2$
Protection Class (<i>DIN EN 60529</i>)	IP65
Operating Temperature	-20° ... +70° C [-4° ...+158°F] +100°C [+212°F] (Optional: Special Option SHT0)
Weight	ca. 0.2 kg [0.44 lb]

Output Signals



Special Option S004: Marker pulse Z gated with A and B

A leads B in the Clockwise Direction (facing shaft)
Complementary Signals are also available (see ordering code)

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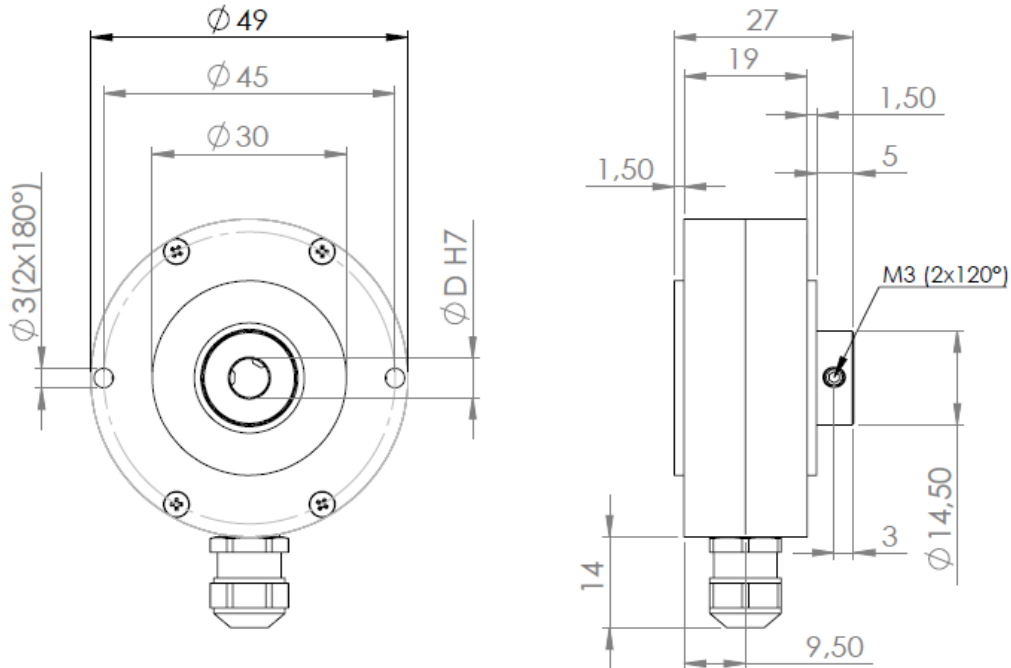
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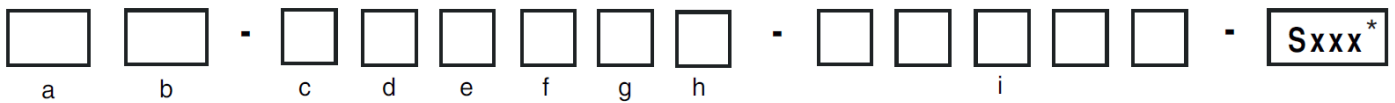
Geometry

Dimension in mm (drawing available as: dxf-,iges-, step-,sld-file)

Bore Size Diameter D see ordering code



Ordering Code



a. = Group Function

IH = Incremental Encoder

d. = Mechanical Option

0 = none

g. = Output Signals

3 = A + B + Z

6 = A+B+ Z + A\ + B\ + Z\

b. = Basic Series Number

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e. = Connection Type

0 = 2 m Cable [6']

B = 5 m Cable [16.5']

C = 10 m Cable [33']

N = 3 m Cable [10']

h. = Output, Supply Voltage

1 = TTL, 5 VDC

3 = Push-Pull, 4.75 - 30 VDC

5 = Push-Pull, 8 - 30 VDC

c. = Shaft Size

Selectable from 4 to 8 mm

04 = 4 mm, 06 = 6 mm, 08 = 8 mm, AA = 1/4"

f. = Connector Location

R = Radial

i. = Resolution

Selectable from 1 to 3600 ppr

00004 = 4 ppr, 2048 = 2048 ppr

* Any special functions and design will be designated by a code (Sxxx) at the end of the part number. Consult our Office for your region for further details. If this encoder does not fit your needs, please also consult us for help.



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Connection

<u>Function</u>	<u>Cable Color Code</u>
GND	white
V _{cc}	brown
A	green
B	yellow
Z	grey
A\	pink
B\	blue
Z\	red

Accessories IH 490

Reduction Sleeve

B490-8/4 – Reduction Sleeve Series 490 from 8 mm to 4 mm

B490-8/6 – Reduction Sleeve Series 490 from 8 mm to 6 mm

Tether

TEH-490 – Tether Series 490