

ENCODER HOLLOW SHAFT J-50H/T



JAYASHREE ENCODERS
JENCODERTM
THE PERFECT CODER
ISO 9001-2015

FEATURES

- Encoder designed for Induction motor feedback applications
- Through and blind bore upto 16mm
- Robust design less than 52 mm diameter size with gland and diecast covers
- Shatter proof polycarbonate disk
- Designed with many options including various types of connectors and mounting flex
- Collet clamp for fixing motor shaft
- LED power compensated for aging and temperature
- Robust ASIC based design
- Robust electrical design capable of taking surge across supply voltage
- Output stage with long distance cable driving capability

ORDERING EXAMPLE - J-50T-R-HVLD-1000-V3-10-SF10-FS-1-S-SG-N-A-2m

J-50H/T	R	HVLD	1000	V3	10	SF10	FS	1	S	SG	N	A	2m
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MODEL
50H = Hollow Blind shaft Encoder
50T = Hollow Thru shaft Encoder

CHANNELS
R = ABZ
Q = AB
A = A

VOLTAGE
V3 = 5 to 26 VDC
For TTL Output
5 Volt only

CLAMPING STYLE
FS = Front Side
RS = Rear Side

MOUNTING OPTION
SF10= Double Side Slotted Flex mount 46mm and 63mm
SF11= Single Side Slotted Flex mount 27mm to 46mm
SF14= Double Side Slotted Flex mount 66mm
SF15= Single Side Slotted Flex mount 38mm to 79mm

TEMPERATURE
S = -10 to 70°C
H = -20 to 100°C

CE CERTIFIED
N = Standard
CE = CE Certified

CABLE LENGTH
1m
2m
5m

OUTPUT
HV = 15mA source /sink up to 100°C without inverted channels
HVLD = 15mA source /sink up to 100°C with inverted channels
PP = 20mA source/sink up to 100°C without inverted channel
PPLD / HTL = 20mA source/sink up to 100°C with inverted channel
OC = 20mA sink type (NPN) without inverted channel
TTL / RS422 = 15mA source/sink up to 70°C with inverted channel at 5VDC

SHAFT SIZE ød (h7)
06 = 06mm
6.35 = 6.35mm
08 = 08mm
9.52 = 9.52mm
10 = 10mm
12 = 12mm
14 = 14mm
15 = 15mm
16 = 16mm

CABLE OUTLET
SG = Side Gland,
S8 = 8 Pin Side M12 Connector
S12 = 12 Pin Side M23 Connector

GRADE OF PROTECTION
1 = IP50
2 = IP65 (available only up to 70°C temperature option)

PPR
100**,250**,256**,300,360,500,512,600,625,720,1000,1024,1200,1250,1440,1800,2000,2048,2500,3000*,3600*,4000*,4096*,5000*,6000*,7200*,8000*,8192*,10000*
**These PPR are available upto 10mm bore
*These PPR available in Temperature option -10° to 70°C

Z GATING
A (Standard) = Quadrature A & B with 180° index gated to A
AB = Quadrature A & B with 90° index gated to A and B
N = Ungated

Electrical Characteristics

	TTL / RS422	PP	PPLD / HTL	OC	HV	HVLD
Power Supply	4.85 ... 5.25 VDC (Ripple Peak to Peak 5%)	4.85 ... 26 VDC (Ripple Peak to Peak 5%)				
Power consumption [No Load]	40mA					
Permissible load / Channel	15mA	20mA	20mA	20mA	15mA	15mA
Pulse Frequency	100 kHz	300 kHz	300 kHz	50 kHz	100 kHz	100 kHz
Short circuit proof output	No	Yes	Yes	Yes	Yes	Yes
Reverse polarity protection of the power supply	Yes					
Sensing Method	Optical					
Surge protection as per IEC61000-4-5 500V	No	Yes	Yes	Yes	Yes	Yes
Duty Cycle	180° ± 18°					
A and B Phase shift	90° ± 36°					

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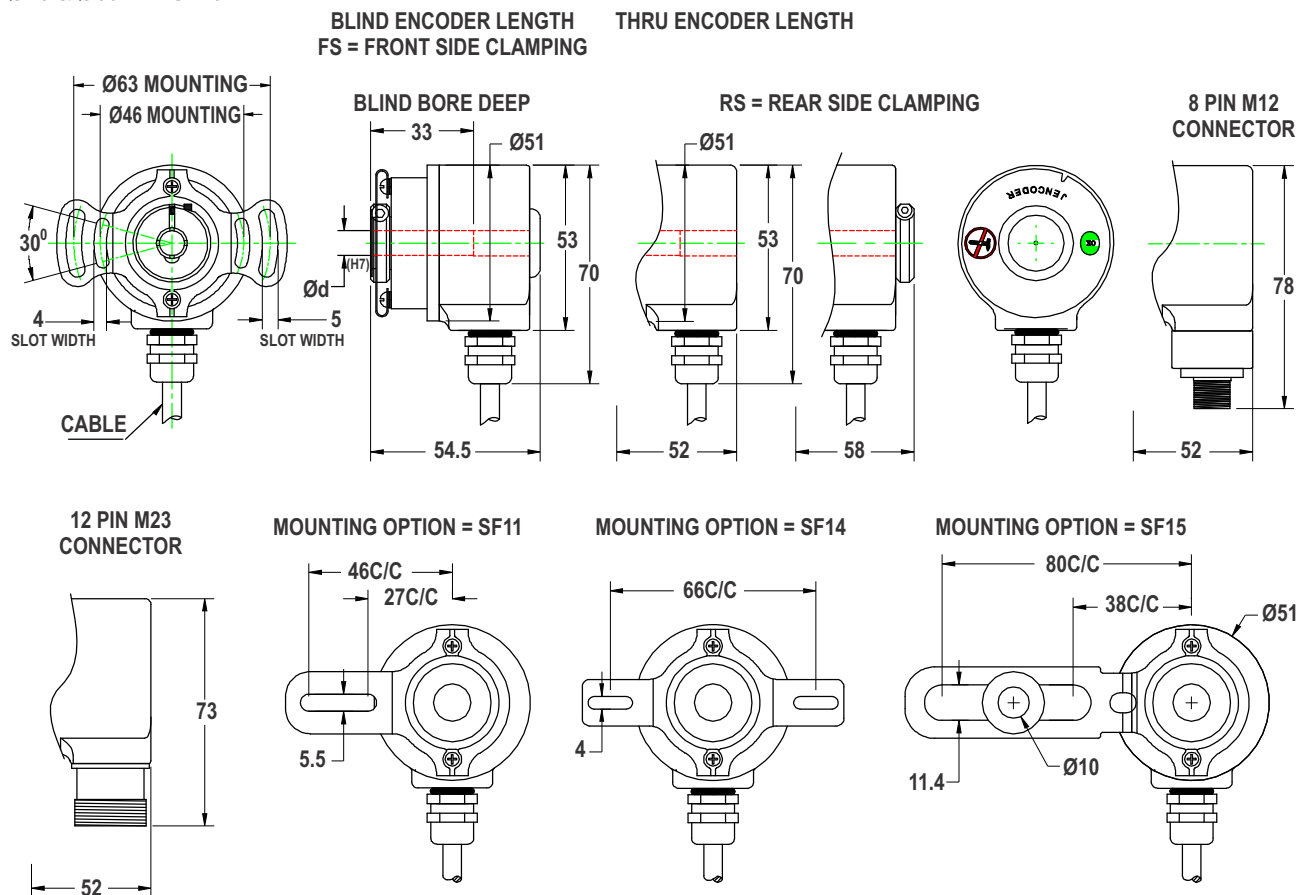
Mechanical characteristics

Shaft Load Capacity	Radial 10kg, Axial 10kg
Max. Speed	6000 RPM
Protection IEC60529	IP50, IP65
Working temperature range	-10...+70°C -20...+100°C (IP50)
Material	Shaft : stainless steel Grade 303 alternative Grade 304 Housing : Cast Alloy Cover : Cast Alloy
Weight	Below 170 grams

Environmental characteristics

Vibration Resistance	10G, 10---2000Hz as per IEC 60068-2-6, more possible contact factory
Shock Resistance	100G, 6ms as per IEC 60068-2-27, more possible contact factory

J-50H/T
Slotted Flexmount
Ø46 & Ø63mm=SF10



All dimension are in mm with a tolerance of ±0.1 unless otherwise specified

Temp °C	Frequency kHz	Voltage V	Load Current	Cable Mtr
70°C	300Khz	24Vdc	20mA	5 Mtr
70°C	150Khz	15Vdc	20mA	30 Mtr
70°C	50Khz	24Vdc	20mA	100 Mtr

- For OC output, the rise and fall time depends on cable capacitance, hence the frequency gets limited by cable distance. In general we recommend to use OC- output upto 10meter distance only.
- OC output is limited upto 50Khz, all other output types can go upto 300Khz.

- Cable length depends upon by operating Voltage, Frequency, Cable capacitance & load. The figures given in above table are representative

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Wiring Detail

Function	Wire color		Pin							
	HV,PP,OC	HVLD, PPLD, TTL	6 PIN CONN R-PP	6 PIN CONN Q PPLD	7 PIN CONN R PP	7 PIN CONN Q PPLD	8 PIN CONN. M12	10 PIN MS	12 PIN (M23)	17 PIN MS
+VDC	White	White	D	D	D	D	2	D	2, 12	H
COMM	Black	Black	F	F	F	F	1	F	10, 11	K
A	Brown	Brown	A	A	A	A	3	A	5	A
A ⁻	----	Yellow	----	C	----	C	4	H	6	N
B	Red	Red	B	B	B	B	5	B	8	C
B ⁻	----	Green	----	E	----	G	6	I	1	R
Z	Orange	Orange	C	----	C	----	7	C	3	B
Z ⁻	----	Blue	----	----	----	----	8	J	4	P
Shield	Bare	Bare	E	NA	E	E	Body	G	9	E, L

Output Waveform :
Viewed from Shaft End  CW Direction

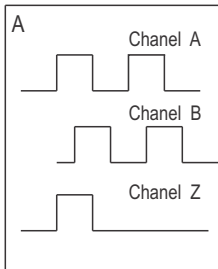


Fig 1 : Quadrature A & B with 180° Index gated to A

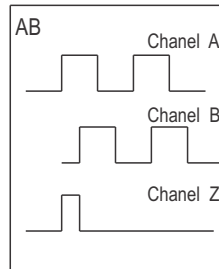


Fig 2 : Quadrature A & B with 90° Index gated to A & B

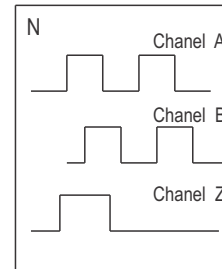
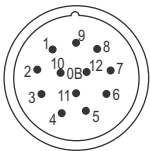
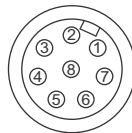


Fig 3 : Quadrature A & B with ungated Index

**M23 Connector
12 Pin-Male**



**M12 Connector
8 Pin-Male**



WORLD CLASS MANUFACTURING FACILITY

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