

# ENCODER HOLLOW SHAFT J-80

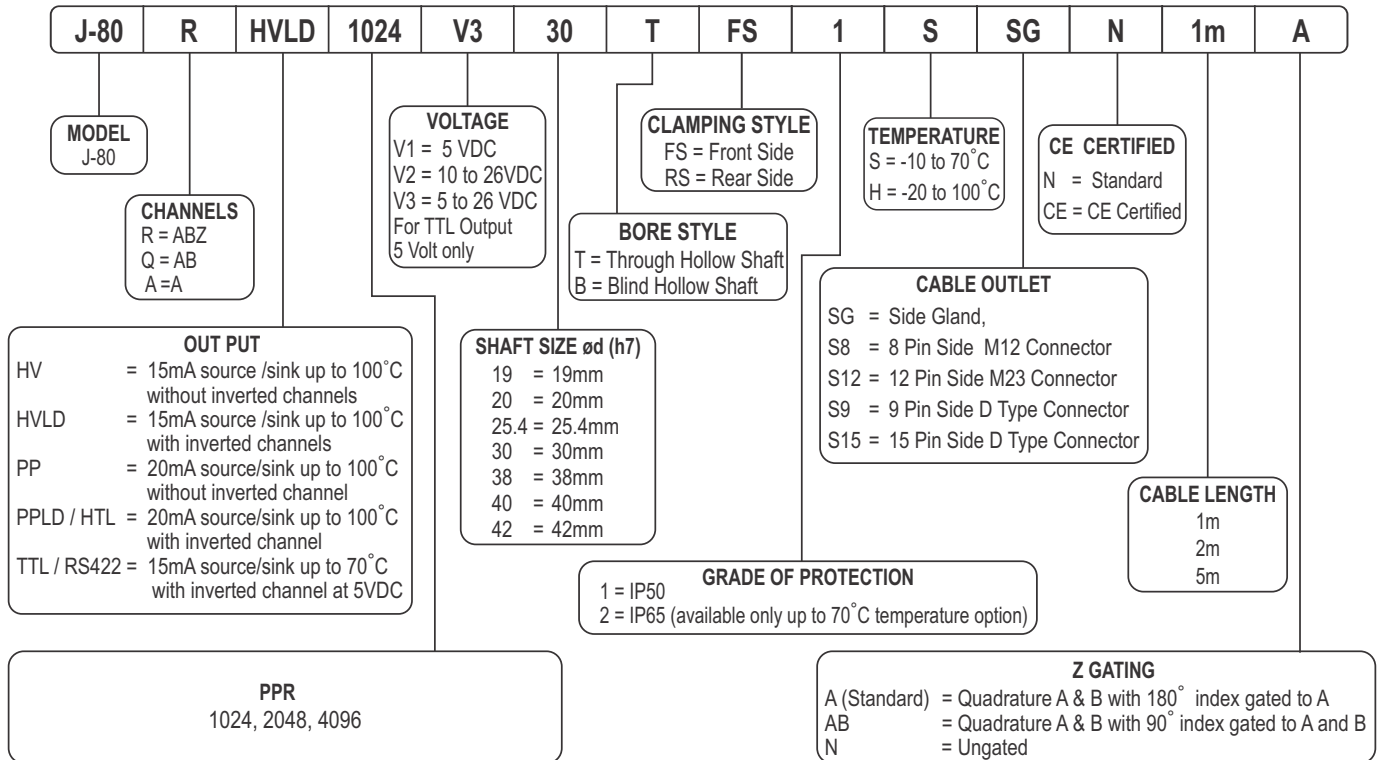


JAYASHREE ENCODERS  
**JENCODER**<sup>TM</sup>  
THE PERFECT CODER  
ISO 9001-2015

## FEATURES

- One of the most compact encoder design for direct mounting behind an induction motor - Elevator Application
- Shatter proof polycarbonate disk
- 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-80-R-HVLD-1024-V3-30-T-FS-1-S-SG-N-1m-A



## Electrical Characteristics

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

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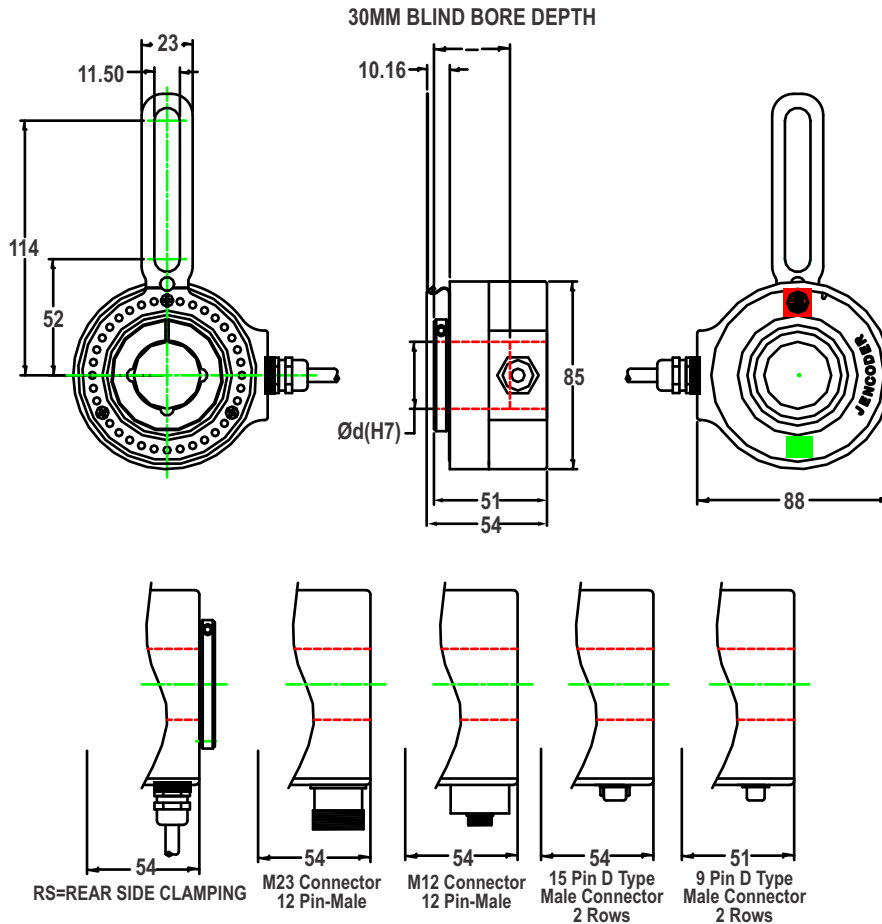
## Mechanical characteristics

<b>Shaft Load Capacity</b>	Radial 10kg, Axial 10kg
<b>Max. Speed</b>	2000 RPM
<b>Protection IEC60529</b>	IP54
<b>Working temperature range</b>	-10...+70°C -20...+100°C (IP50)
<b>Material</b>	Shaft : Aluminum Housing : Cast Alloy Cover : Cast Alloy
<b>Weight</b>	Below 460 grams

## Environmental characteristics

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

**J 80**



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

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

- 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.

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## Wiring Detail

Function	Wire Color		Pin			
	HV,PP	HVLD, PPLD, TTL	9 PIN D CONN	15 PIN D CONN	8 PIN CONN M12	12 PIN (M23)
+VDC	White	White	1	4	2	2, 12
COMM	Black	Black	9	5	1	10, 11
A	Brown	Brown	3	15	3	5
A <sup>-</sup>	----	Yellow	4	14	4	6
B	Red	Red	6	13	5	8
B <sup>-</sup>	----	Green	5	12	6	1
Z	Orange	Orange	10	7	7	3
Z <sup>-</sup>	----	Blue	11	8	8	4
Shield	Bare	Bare	<b>Case</b>	<b>Case</b>	<b>Case</b>	<b>9</b>

Output Waveform :  
Viewed from Shaft End  CW Direction

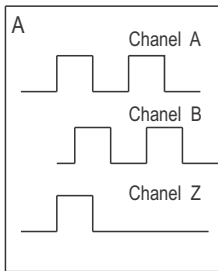


Fig 1 : Quadrature A & B with 180° Index gated to A

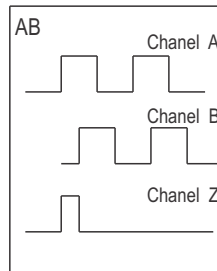


Fig 2 : Quadrature A & B with 90° Index gated to A & B

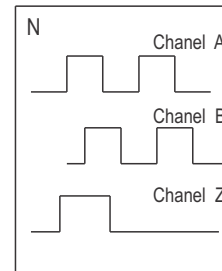
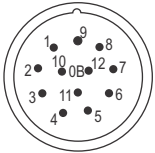
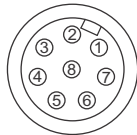


Fig 3 : Quadrature A & B with ungated Index

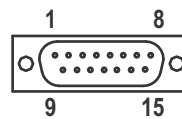
### M23 Connector 12 Pin-Male



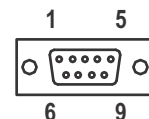
### M12 Connector 8 Pin-Male



### 15 PIN DETAIL



### 9 PIN DETAIL



WORLD CLASS MANUFACTURING FACILITY

## JAYASHREE ENCODERS PVT. LTD.

Sector 10, PCNTDA Industrial Area, Bhosari, Pune 411 026 (India)  
Tel. : 020 66328000 | Email : sales@jencoder.com