



NorthStar™



SERIES HDN58 SHAFT-LESS ENCODER

KEY FEATURES

- No shaft, bearings, or seals to wear out
- Eliminates shaft coupling issues
- Completely sealed & encapsulated electronics
- Wide sensing envelope is tolerant to misalignment
- Incremental or absolute output

SPECIFICATIONS

MECHANICAL

- Enclosure: 58mm diameter delron
- Weight: 2oz
- Maximum RPM: 3000 PRM

ELECTRICAL

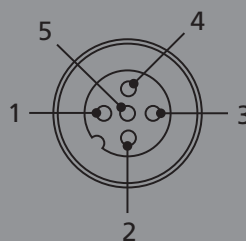
- **Supply Voltage:** 6 to 30 VDC, 60mA
- **Output Format:** Incremental quadrature (Ch A and Ch B, with optional Index)
- **Output Resolution:** 8 to 2048 quadrature pulses per revolution (13 bit)
- **Output Driver:** Push/Pull (OLP7272)
- **Protection:** reverse polarity, spike, noise, open circuit, short circuit
- **Electrical Connections:** 5-pin terminal strip, 5-pin M12, 8-pin M12, cable (see Connections)
- **LED Indicators:** Power, Channel and Index

ENVIRONMENTAL

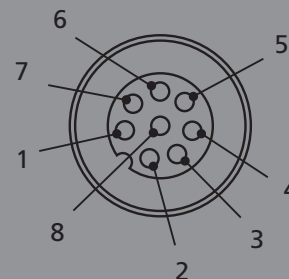
- **Temperature:** -25 to +70 degrees C
- **Humidity:** 100% relative humidity
- **Potting Compound:** Non-porous, water and chemical resistant, RoHS compliant
- **Shock & Vibration:** Meets MIL-STD-202
Shock—half sine, 50g, 11ms Thermal
Shock—-40 to + 125 one hour dwell
Vibration—10 to 500 hz at 10g
- **Enclosure Rating:** IP65, 67 or 68 (depending on connection style)

CONNECTIONS

Pin Designation	5-pin Terminal Strip	5-pin M12	5 conductor cable	8-pin M12	8 conductor cable
	Pin	Pin	Wire Color	Pin	Wire Color
+Vdc	1	1	BRN	2	BRN
Common	2	3	BLU	7	BLU
Data A	3	4	BLK	1	WHT
Data B	4	2	WHT	4	GRN
Data Z	5	5	GRY	6	GRY
Data A'				3	YLW
Data B'				5	RED
Data Z'				8	PNK



Male 5-pin M12



Male 8-pin M12



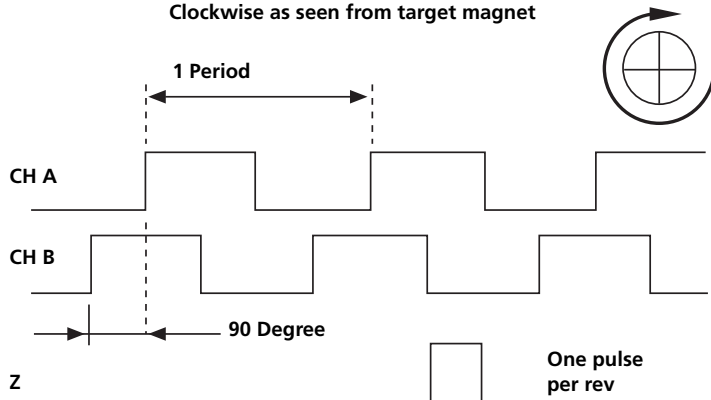
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HDN58 ORDERING INFORMATION

Code 1: Model	Code 2: Resolution	Code 3: Output	Code 4: Connection	Code 5: Target Magnet
HDN58	0008 0050 0250 0010 0064 0256 0016 0080 0400 0020 0100 0500 0025 0125 0512 0032 0128 ABSO 0040 0200 Other resolutions available. Contact factory for details.	0 Single Ended A,B,Z Push-pull (7272) 1 Differential line Driver A,B,Z (7272) (Code 4 must =4,5, or 6) 2 13 bit-Absolute 0-5VDC (Code 2 must =ABSO and code 4 must =3) J CANbus J1939 Protocol (code 4 must = 0) (Code 2 must = ABSO)	0 5 pin M12 1 5 pin M12 on pigtail 2 5 conductor cable 3 5 pin terminal strip 4 8 pin M12 5 8 pin M12 on pigtail 6 8 conductor cable	0 No magnet, customer supplied 1 Dual magnet w/Nylon bolt, 1/4-20 2 Dual magnet w/Aluminum bolt, 1/4-20 3 Dual magnet nylon collar, 1/2" bore 4 Dual magnet nylon collar, 3/4" bore 5 Dual magnet nylon collar, 1" bore 6 Dual magnet nylon collar, 1-1/2" bore

HDN58 OUTPUT FORMAT

Clockwise as seen from target magnet



HDN58 TARGET MAGNETS

- Neodymium
- Distance from user magnet to face of encoder: 0.01 to 0.5 inches
- Center alignment: 0 to 0.10 inches
- Planar tilt: 30 degrees



Aluminum bolt, 1/4-20

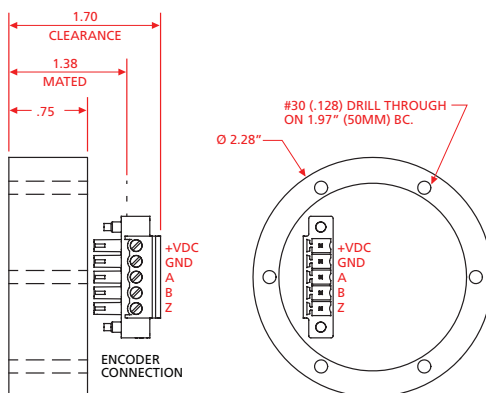


Nylon bolt, 1/4-20



Dual magnet, Nylon collar

HDN58 DIMENSIONS



For additional information, contact your Dynapar representative at 1.800.873.8731 or visit our web site at: www.dynapar.com
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