SERIES HDN58

NorthStar™ brand

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 Diameter: 58mm

Max. Speed: 3000 RPM

ELECTRICAL

Input Power: 6vdc min to 30vdc max at 60mA max, not including output loads

Outputs: 7272 Push-Pull : 40mA sink or source

Output Resolution: 8 to 2048 quadrature pulses per revolution (13 bit)

Electrical Protection: Overvoltage, Reverse Voltage, Output Short Circuit Protected

Electrical Connections: 5-pin terminal strip, 5-pin M12, 8-pin M12, cable (see Connections)

LED Indicators: Power and Output Channel

ENVIRONMENTAL

Operating Temperature: -30 to +80 °C (-22 to 176 °F)

Humidity: 100% relative humidity

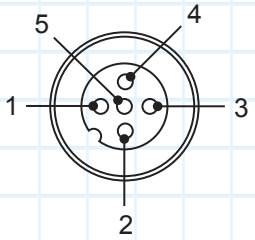
Potting Compound: Non-porous, water and chemical resistant, RoHS compliant

Shock & Vibration: Meets MIL-STD-202
Shock: 400G/6ms
Thermal Shock: -40 to +125 °C one hour dwell
Vibration: 5 to 3000hz, 20g

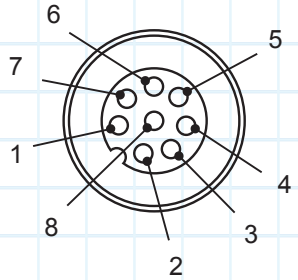
Enclosure Rating: Connector dependent IP65, IP67 or IP68

CONNECTIONS

Function	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 $\overline{A}$				3	YLW
Data $\overline{B}$				5	RED
Data $\overline{Z}$				8	PNK



Male 5-Pin M12



Male 8-Pin M12

NorthStar™ brand SERIES HDN58

Ordering Information

To order, complete the model number with code numbers from the table below:

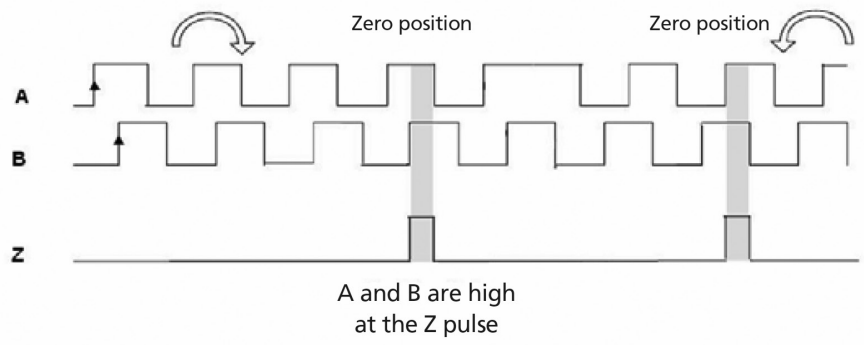
Code 1: Model	Code 2: PPR	Code 3: Format	Code 4: Connection	Code 5: Target Magnet
HDN58	□□□□	□	□	□

Ordering Information

HDN58	**0008** **0100** **0010** **0125** **0016** **0128** **0020** **0200** **0025** **0250** **0032** **0256** **0040** **0400** **0050** **0500** **0064** **0512** **0080**	**0** Single Ended A,B,Z Push-pull (7272) (Code 4 must = 0,1,2 or 3) **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 **3** 13 bit-SSI 0-8192 Line Driver (Code 2 must = ABSO and code 4 must = 4,5 or 6	**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 **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 **R** Ring Magnet w/Knurled Alumnum Bolt, 1/4-20
	Code 3 Must be J **ABSO** Other resolutions available. Contact factory for details.	**V1** 5VDC Input Voltage, .5 - 4.5 Output 0-360 CW, Standard Output Voltage **V2** 6-24 VDC Input Voltage, .5 to 4.5 Output 0-360 CW, Standard Output Voltage **I1** 12-24VDC Input 4-20mA 0-360 CW, Standard Output		
		J CANbus J1939 Protocol (code 2 must = ABSO and code 4 must = 0) **Note**: For V1, V2 and I1 Consult Factory for Special Sealing		

HDN58 OUTPUT FORMAT

58/MM: QUADRATURE INCREMENTAL OUTPUT

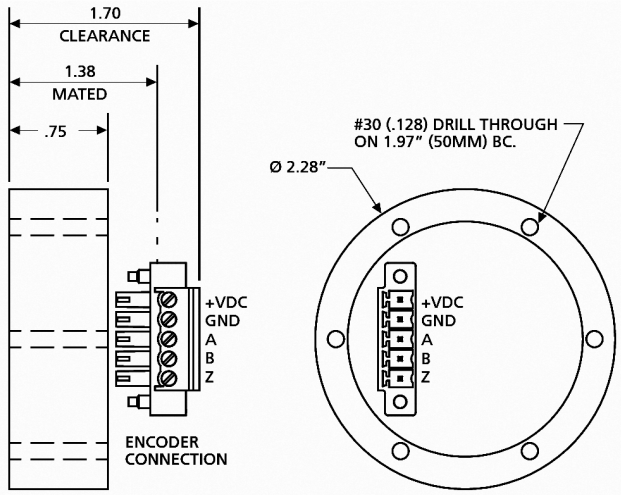


A and B are high at the Z pulse

SERIES HDN58

by DYNAPAR™

HDN58 DIMENSIONS



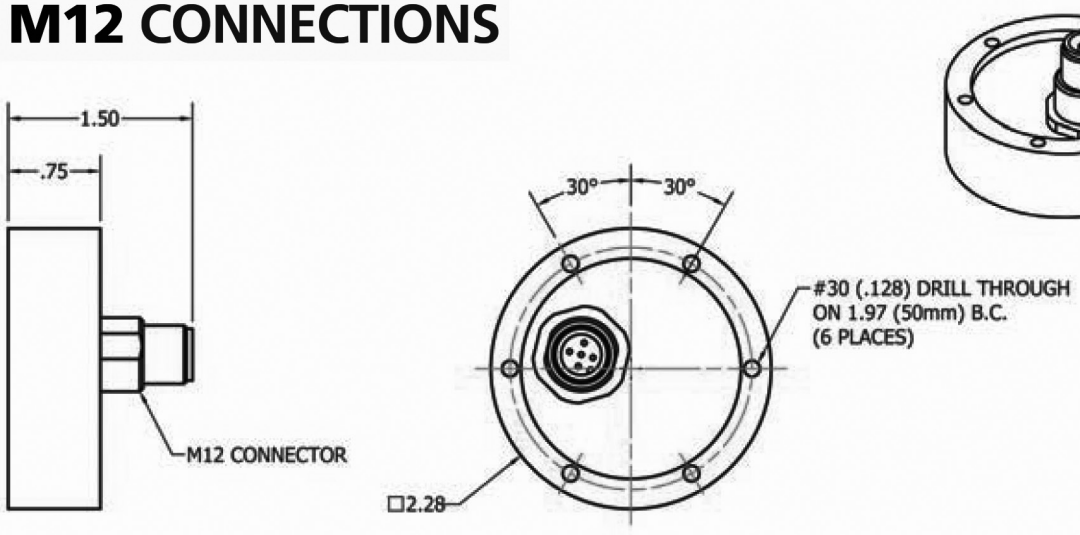
HDN58 TARGET MAGNETS

- 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

Dual magnet, Nylon collar

1/4 Bolt Magnet with Knurl

M12 CONNECTIONS



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