



NorthStar™



SERIES HDP30 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
- Incredibly Small Package
- Standard Proximity Sensor form factor
- LED Indicators make installation and troubleshooting a breeze

SPECIFICATIONS

MECHANICAL

- **Enclosure Diameter:** 30mm
- **Enclosure Height:** 31mm, 50mm with M12 connector
- **Mounting:** 30mm thread (standard prox thread)
- **Weight:** 1.0 oz without mounting nuts, 2.2 oz with typical mounting nuts
- **Speed:** 3000 RPM max

ELECTRICAL

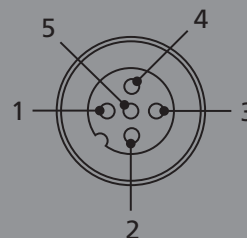
- **Input Power:** 6vdc min to 30vdc max at 60mA max, not including output loads
- **Outputs:** 7272 Push-Pull : 40mA sink or source
- **Electrical Protection:** Overvoltage, Reverse Voltage, Output short Circuit protected
- **LED Indicators:** Power, A, B, Z

ENVIRONMENTAL

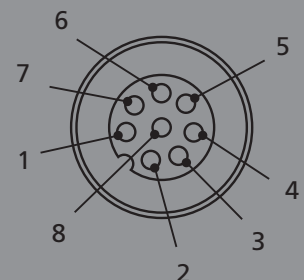
- **Operating Temperature:** -25 to +80 degrees C (-13 to 176 degrees F)
- **Storage Temperature:** -40 to +90 degrees C
- **Enclosure Rating:** Connector dependent
 - M12 on pigtail – IP68
 - Cable with flying leads – IP68

CONNECTIONS

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



Male 5-pin M12



Male 8-pin M12

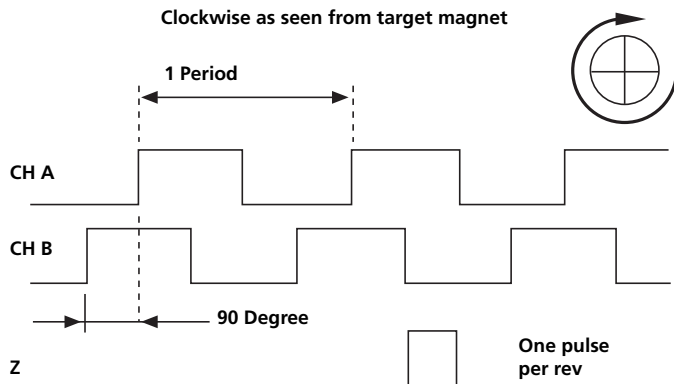


NorthStar™

HDP30 ORDERING INFORMATION

Code 1: Model	Code 2: Resolution	Code 3: Output	Code 4: Connection	Code 5: Target Magnet
HDP30T	0008 0050 0250 0010 0064 0256 0016 0080 0400 0020 0100 0500 0025 0125 0512 0032 0128 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)	0 5 pin M12 1 5 pin M12 on pigtail 2 5 conductor cable 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

HDP30 OUTPUT FORMAT



HDP30 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