



NorthStar™



SERIES HDP18 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
- Incredibly Small Package
- LED Indicators make installation and troubleshooting a breeze

SPECIFICATIONS

MECHANICAL

- Enclosure Diameter: 18mm
- Enclosure Height: 47mm
- Mounting: 18mm thread (standard prox thread)
- Weight: 3.0 oz typical with mounting nuts and 6" ying lead cable
- Speed: 3000 RPM max

ELECTRICAL

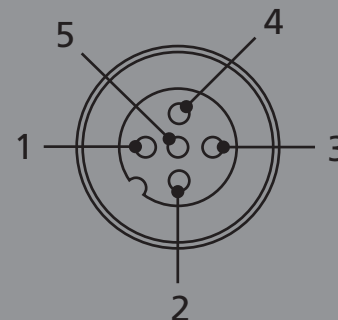
- Input Power: 6vdc min to 30vdc max at 60mA max, not including output loads
- Outputs: 7272 Push-Pull : 40mA sink or source
- Electrical Protection: Overvoltage, Reverse Voltage, Output short Circuit protected
- PWM Output: 10 bit Pulse Width Modulation output signal proportional to absolute position. 0 degrees=1 usec or 1025 usec period, 359.65 degrees = 1024 usec of 1025 usec period
- 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

Function	5-pin M12 on cable	5 conductor cable	6 conductor cable
	Pin	Wire Color	Wire Color
+Vdc	1	BRN	BRN
Common	3	BLU	BLU
Data A	4	BLK	BLK
Data B	2	WHT	WHT
Data Z	5	GRY	GRY
PWM Absolute position			PNK



Male 5-pin M12

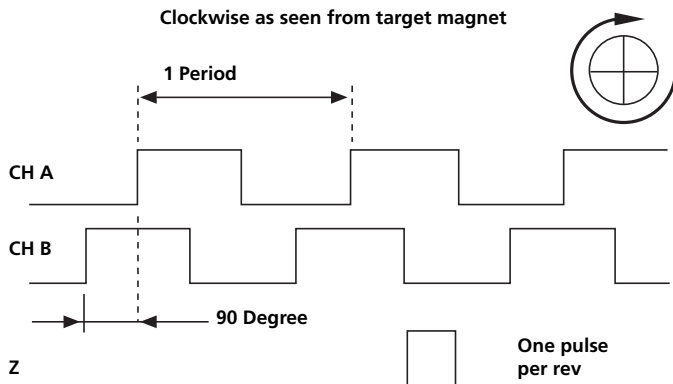


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HDP18 ORDERING INFORMATION

Code 1: Model	Code 2: Resolution	Code 3: Output	Code 4: Connection	Code 5: Target Magnet
HDP18T	0256	0 Single Ended A,B,Z Push-pull (7272) P PWM 10-bit absolute output w/ Single ended A,B,Z Push-pull (7272) (code 4 must = 7)	1 5 pin M12 on pigtail 2 5 conductor cable 7 6 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

HDP18 OUTPUT FORMAT



HDP18 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