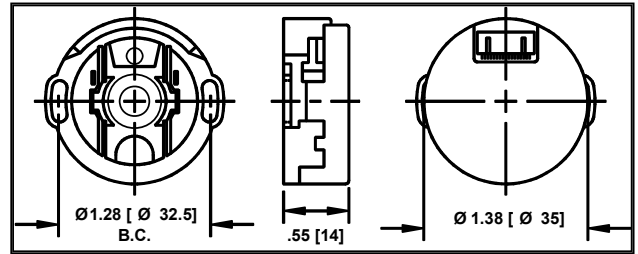


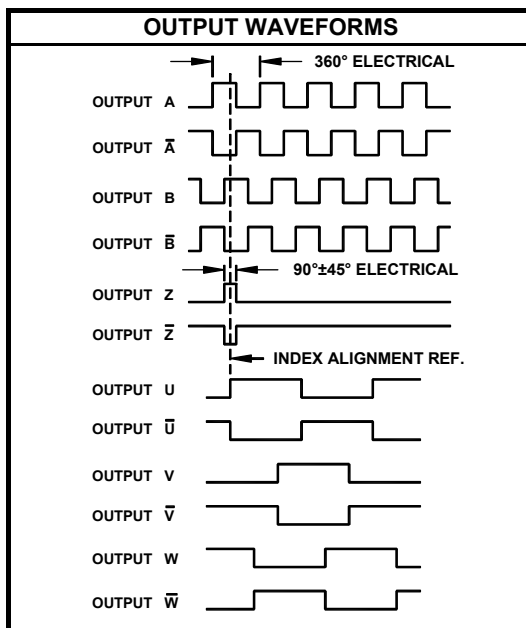
- Output Channels - Incremental A, B, Z, & Commutation U, V, W
- Differential Line Drivers - all 6 channels
- Commutation for 4 & 8 Pole Motors
- Power Requirement - 200 mA @ 5VDC
- 500 kHz Operating Frequency - all channels
- Inertia - 150 μ miss (.00015 oz-in-sec²)
- RoHS Compliant to EU Directive 2002/95/EC
- Factory installed only



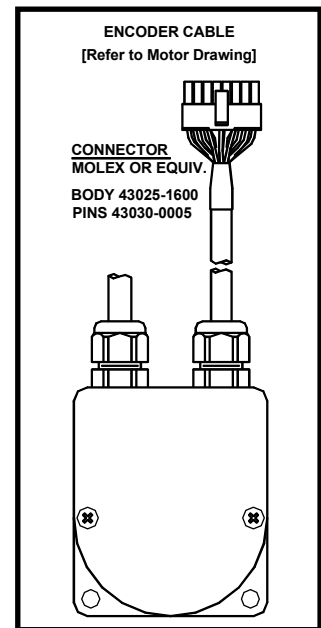
The Z Series of incremental encoders represents state of the art in ASIC sensor technology. This technology requires fewer components thereby increasing product quality while providing improved precision from a smaller package. Additionally, the precision of the commutation channels is superior to that typically achieved with Hall signals resulting in improved system performance. These units are factory mounted on PITTMAN motors and aligned to the motor's electrical properties which allows "drop-in" replaceability without the need to "initialize" each new motor. Connections to the encoder are made through the motors 16 pin connector referenced below.

Catalog Number	Resolution	Data Outputs	Pole Count	Disk Material	Operating Temp.
Z1	1000	A, B, Index	4	Metal	-30 to 115C
Z3	2000	A, B, Index	4	Metal	-30 to 115C
ZA	1000	A, B, Index	8	Metal	-30 to 115C
ZC	2000	A, B, Index	8	Metal	-30 to 115C

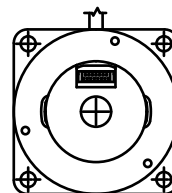
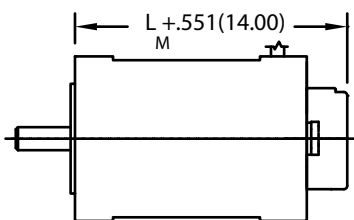
Note: Other line counts are available on a special order basis



MOTOR CABLE CONNECTION	
CONNECTOR PIN	FUNCTION
1	VDC (+5V)
2	Output A
3	Output B
4	Output Z
5	Output U
6	Output V
7	Output W
8	Case Ground
9	Common
10	Output A-bar
11	Output B-bar
12	Output Z-bar
13	Output U-bar
14	Output V-bar
15	Output W-bar
16	Cable Shield



N 2300 Series Motor with Z Encoder



Motor	Length L _M max in (mm)
N2311	1.532 (38.91)
N2312	1.982 (50.34)
N2313	2.482 (63.04)
N2314	2.982 (75.74)

This document is for informational purposes only and should not be considered as a binding description of the products or their performance in all applications. The performance data on this page depicts typical performance under controlled laboratory conditions. Actual performance will vary depending on the operating environment and application. AMETEK reserves the right to revise its products without notification. The above characteristics represent standard products. For products designed to meet specific applications, contact PITTMAN Motor Sales Department.