

MzSE Series

Multi-Turn Absolute Shaft Encoder

Maximum Resolution 30 bits

Shaft Diameter 6 or 10mm

MECHANICAL SPECIFICATIONS

RPM Max.
 6000 Torque IP65, 7Ncm
 Loading Axial 40N, Radial 110N
 Weight 200g
 Temperature -20°C to +70°C

ELECTRICAL

Current 400mA @ 10V - 180mA @ 24V
 Signal frequency for the LSB 100kHz
 Max Switching load 20mA

FEATURES

The MzSE Series is an IP65 protected industrial encoder designed for normal industrial environments. The output data is a true parallel code; suitable for reading direct into a panel meter or standard PLC input card.

NOTE: All output signals are short circuit protected. The input control wire is protected against open circuit or connection to the positive supply.

Refer to COUPLING data sheet for our range of zero backlash shaft couplings, which must be used to drive these encoders.

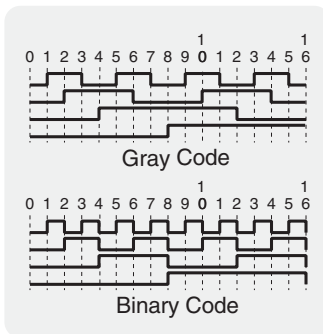
NOTE

Three control inputs are provided to customise the encoder to suit different applications while retaining a single stock item.

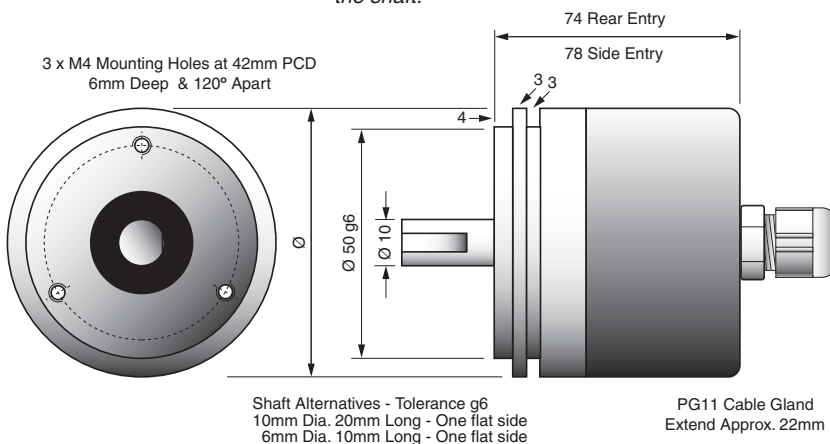
1. **PRESET** Connect to the + supply for greater than 100ms to reset the output bits to all read zero. This feature eliminates the necessity to co-ordinate the mechanical and electrical zero positions.

2. **LATCH** Connect to the + supply to hold the output data from changing, updates immediately the signal returns to logic 0.

3. **COUNT DIRECTION** When at logic 0 the output will count UP with clock wise (CW) rotation, when connected to + supply the output will count up with counter clockwise rotation (CCW) of the shaft.



Signal	Plug Pin	Cable
Bit 1	1	White
Bit 2	2	Brown
Bit 3	3	Green
Bit 4	4	Yellow
Bit 5	5	Grey
Bit 6	6	Pink
Bit 7	7	Blue
Bit 8	8	Red
Bit 9	9	Black
Bit 10	10	Violet
Bit 11	11	Grey-Pink
Bit 12	12	Red-Blue
Bit 13	13	White-Green
Bit 14	14	Brown-Green
Bit 15	15	White-Yellow
Bit 16	16	Yellow-Brown
Bit 17	17	White-Grey
Bit 18	18	Grey-Brown
Bit 19	19	White-Pink
Bit 20	20	Pink-Brown
Bit 21	21	White-Blue
Bit 22	-	Brown-Blue
Bit 23	-	White-Red
Bit 24	-	Brown-Red
Bit 25	-	White-Black
Preset	22	Brown-Black
Latch	23	Grey-Green
CW/CCW	24	Yellow-Grey
+10-30 V	25	Pink-Green
0 Volts	26	Yellow-Pink



NOTE: Wiring code can vary, refer to product label for final details.

Part Number Selection Guide

Series	Mechanical Options	Electrical Options	Reading Range
1 2 3 4	5 6 7 8	9 10 11 12	12, 13 or 16 Bits
M <input type="text"/> S <input type="text"/> E <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> A M /	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Number Of Shaft Turns 4 Bit = 16 V 8 Bit = 256 C 12 Bit = 4,096 J 14 Bit = 16,348 L Stainless Steel Shaft Metric 06 or 10mm Housing Material IP65 Aluminium H IP66 Aluminium J IP66 Stainless Steel S	Wiring Entry Rear or Axial R *Side or Radial S * Only available for aluminium housing Wiring Method Cable 2 Metres 2 Cable 5 Metres 3 Cable - Custom Length ... 4 Plug 26 Pin P	12 Bit = 04,096 13 Bit = 08,192 16 Bit = 65,536 Voltage & Output Type 10-30V Push Pull M Options None available A Parallel Output Code Gray A Binary B	NOTE: Refer to NzSG Series for serial Buss encoders.

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NOTE: When determining the resolution of the encoder, remember to consider that the number of pins in the plug, or cores in the cable will ultimately determine the number of bits you can select. The sum of the bits limit for a 26 Pin plug = 21 Bits and Cable = 25 Bits.