

MG23-SERIES



preview

BEARINGLESS INCREMENTAL ENCODER Ø 22 MM

- High ingress protection class IP68
- Non-contact measuring principle
- No wearing parts with long useable life
- Small dimensions & Flat design

Standard: 7-35Vdc Power Supply, 100kHz
2 Square Wave Signals up to 1024 ppr
24 months Warranty

Options: Housing with rotation stop



*Flexible and durable
encoder for demanding
applications*



Conforms to european EMC directive
89/336/EEC standards:
EN61000-6-4 emission in industrial environments
EN61000-6-2 immunity in industrial environments

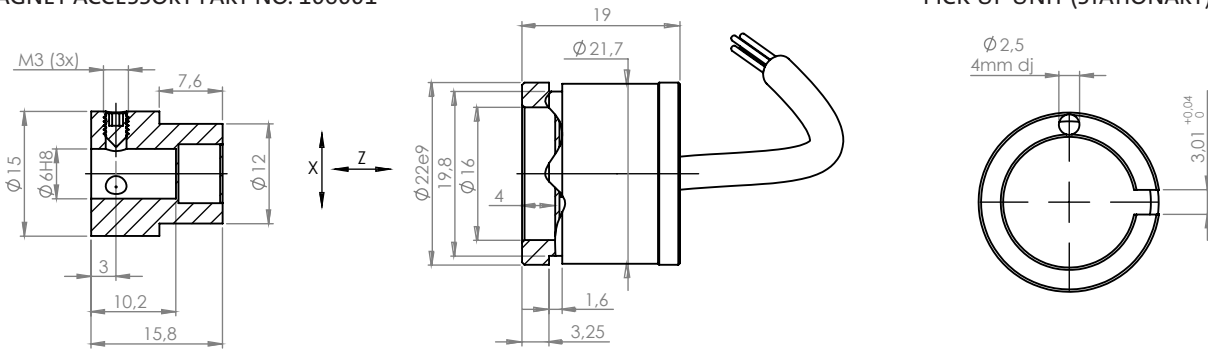
INCREMENTAL ENCODER MODEL

MG23-SERIES

MAGNETIC CARRIER UNIT (ROTATING)
MAGNET ACCESSORY PART NO. 106001

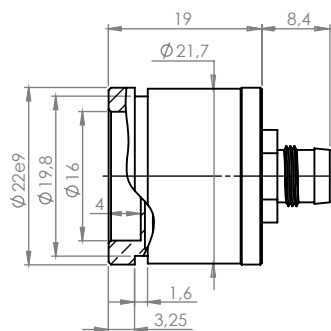
PICK-UP UNIT (STATIONARY)

OPTIONAL HOUSING WITH ROTATION STOP
PICK-UP UNIT (STATIONARY)

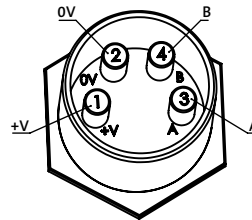


MOUNTING TOLERANCES (all models)
Z = $1 \pm 0,5$ mm
X = $0 \pm 0,25$ mm

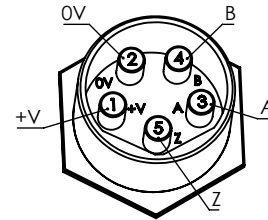
Connection 1, 1XU, 1XT



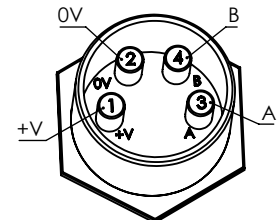
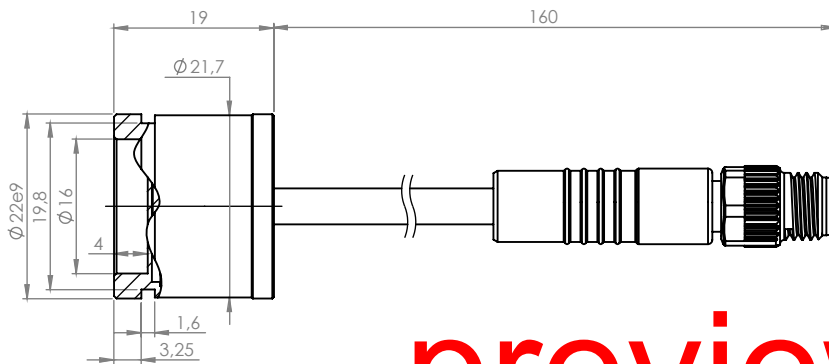
4 PIN M8 MALE ASSIGNMENT
DESCRIPTION -CON 34



5 PIN M8 MALE ASSIGNMENT
DESCRIPTION -CON 35

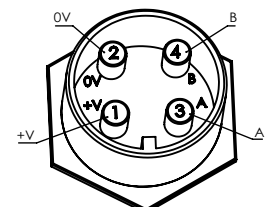
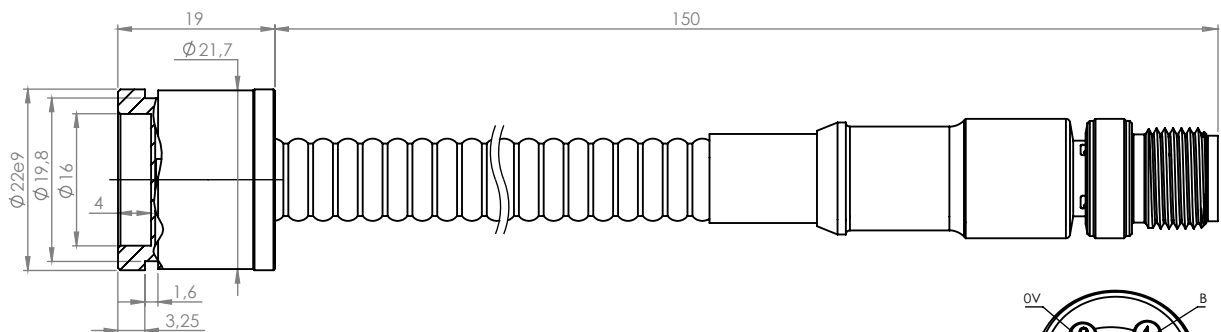


Connection 34 & 35



preview

Connection 59 (4 PIN M8 MALE ASSIGNMENT)



Connection 74 (4 PIN M12 MALE ASSIGNMENT)

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MECHANICAL SPECIFICATION

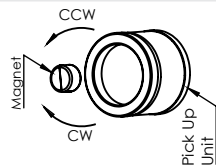
Housing material	Anodized aluminium
Encapsulation class	IP68 (IEC 60529)
Max. rotational speed	9000 rpm
Vibration	50g 20-2000 Hz (IEC 60068-2-6)
Chock	200g at 11 ms (IEC 60068-2-27)
Weight	Approx. 30 g (without cable)

ELECTRICAL SPECIFICATION, STANDARD

Power supply	7-35 Vdc
Current consumption	Max 40 mA, without load
Output circuit	Line driver
Low level output volt	Max <0,5 V at 20 mA load and 20°C
High level output volt	Min >Vcc-2V at 20mA load and 20°C
Short circuit protected	Yes (thermal, overheat protected)
Polarity protected	Yes (applies to function +V and 0V)
Transient protected	Yes
Max load	70 mA
Resolution	1 to 1024 ppr
Max frequency	100 kHz
Operating temperature	-40° to +70°C

CCW/CW ROTATION

CCW rotation viewed from shaft end (all models)



CONNECTION

1XU	Axial cable 0.25mm ² , free cable length, X = No. meters
1XT	Axial cable 0.5mm ² , free cable length, X = No. meters
34	Axial 4pin M8 Male connector
35	Axial 5pin M8 Male connector
59X	Axial, cable 16cm (standard) with 4 pin M8 connector, selectable cable length, X= 10-500cm
74	Axial, cable 15cm with 4 pin M12 connector

FUNCTION (NC= not connected)

Model	MG23A	OUTPUT SIGNAL
1	Green	1
2	Yellow	2
0	NC	
0 Inverted	NC	
+V	Brown	0
0V	White	
STATUS	NC	

APPLIED CONNECTION TYPES 1, 1XU, 34, 59 & 74

Model	MG23B	OUTPUT SIGNAL
1	Green	1
2	Yellow	2
0	Gray	
0 Inverted	NC	
+V	Brown	0
0V	White	
STATUS	NC	(0-Pulse = connected)

APPLIED CONNECTION TYPES 1, 1XU & 35

Model	MG23C	OUTPUT SIGNAL
1	Green	1
2	Yellow	2
0	NC	
0 Inverted	NC	
+V	Brown	
0V	White	
STATUS	Grey	(Status connected= indicating functionality)

APPLIED CONNECTION TYPES 1, 1XU & 35

FUNCTION (NC= not connected)

Model	MG23D	OUTPUT SIGNAL
1	Green	1
2	Yellow	2
0	Gray	
0 Inverted	NC	
+V	Brown	0
0V	White	
STATUS	NC	(0-Pulse = 180° Mechanical)

APPLIED CONNECTION TYPES 1, 1XU & 35

Model	MG23E	OUTPUT SIGNAL
1	Green	1
2	Yellow	2
0	Gray	
0 Inverted	NC	
+V	Brown	0
0V	White	
STATUS	Pink	(0-Pulse connected & status connected, indicating functionality)

APPLIED CONNECTION TYPES 1 & 1XU

Model	MG23N	OUTPUT SIGNAL
1	Green	1
2	Yellow	2
0	NC	
0 Inverted	Gray	
+V	Brown	0
0V	White	
STATUS	NC	(0-Pulse = Inverted)

APPLIED CONNECTION TYPES 1, 1XU & 35

Model	MG23A-X-X-1XT	OUTPUT SIGNAL
1	White	1
2	Black	2
+V	Red	
0V	Blue	

Model MG23A- CON 34,59X & 74

Model	MG23B,C,D,N- CON 35	OUTPUT SIGNAL
1	Blue Pin 3	1
2	Black Pin 4	2
+V	Brown Pin 1	
0V	White Pin 2	

Model	MG23B,C,D,N- CON 35	OUTPUT SIGNAL
1	Blue Pin 3	
2	Black Pin 4	
0	Grey Pin 5	
+V	Brown Pin 1	
0V	White Pin 2	

(View applicable models: MG23B,C,D,N)

MATING CONNECTORS FEMALE* ORDERING CODE

M8SR5,	Snap Straight 5m 4x0,25 PUR/PUR	101109
M8SV2,	Snap Angled 2m 4x0,25 PUR/PUR	101110
M8SV5,	Snap Angled 5m 4x0,25 PUR/PUR	101111
M8SR5-5	Screw, Straight 5m 5x0,25 PUR/PUR	101115
M8SR5-5	Screw, Angled 5m 5x0,25 PUR/PUR	101116

*Not included, ordered separately

ORDERING CODE



* Specify -06 to include magnet carrier unit (part no. 106001)

Specify -0X to exclude magnet carrier unit (part no. 106001)

* For housing with rotation stop specify -R



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