

Explosion Protected ATEX Zone 1, IECEx Zone 1, Magnetic Hollow Shaft Mount Encoder, 1" to 1 1/8"

ATEX and IECEx Certified Encoder

- ┆ Explosion Protected
- ┆ ATEX & IECEx Zone 1 Rated
 - ┆ Up to 1200 PPR
 - ┆ Severe Mill Duty
- ┆ Immune to dust, water, oil, etc.
- ┆ Does not require intrinsic safety barriers
- ┆ Withstands extreme shock and vibration
 - ┆ Protected against wiring errors
 - ┆ Excellent for oil and gas drilling applications

M6C

Avtron M6C explosion protected ATEX and IECEx rated severe mill duty rotary encoders are designed for direct mounting on motor or load shafts, from 1" to 1 1/8" [25-30mm]. Other models available include no-bearing units such as [XR5](#), [XR56](#) and [XR850](#), shafted models including [XR4F](#) and [XR485](#), and hollow shaft models including [XR45](#) and [XR685](#). These models also include ATEX, IECEx, UL, cUL, NEC and CSA ratings.

The M6C is an updated model which directly replaces the [M6](#) encoder, and M6C adds IECEx certification. No barrier or isolator is required-mount M6C directly in any ATEX or IECEx Zone 1 application.

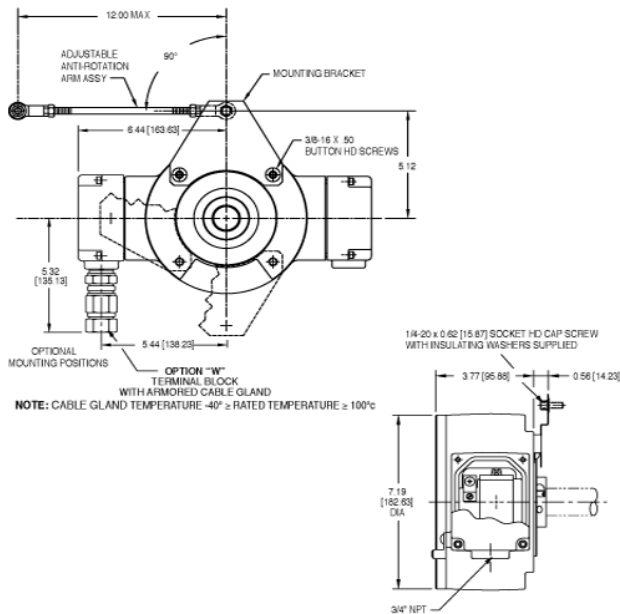
Why take a chance with weak optical encoders on your drilling rig? The M6C features Nidec-Avtron's rugged magnetic sensor and solid metal rotor technology. Our shatterproof, moisture proof systems ensure your application has maximum uptime. The hollow shaft (tethered) models offer direct mounting on shafts from 1" to 1 1/8", without flanges, reducers, couplings, or other hardware. No rework is needed; just mount the encoder directly on the shaft, and secure the tether arm. The heavy duty bearings withstand runout and vibration that destroy lesser encoders.

M6C also includes a complete wiring protection system--it can survive all types of wiring errors and drive signals down the longest cables.

For more information on keeping your rotary encoders working in oil and gas applications, visit our [oil and gas blog](#).

We believe explosion protected encoders should also be ready to withstand the rough drilling environment. Try the M6C today!

OUTLINE DRAWING



MORE M6C ADVANTAGES

- Threaded rod torque arm for easy tethered mounting
- Highly resistant to electrical and magnetic motor and brake noise
- Second isolated output may be different PPR
- Available armored wire gland
- IP66 Enclosure
- 1 Year No-Hassle Warranty

M6C SPECIFICATIONS

Operating Power: Volts: 5-24 VDC; Current: 120mA, no load

Output Format: A,/A, B,/B; Optional Marker Z,/Z

Frequency Range: 0 to 250 KHz @ 6 V & 1 meter cable

PPR: 240-1200

Speed: 5000 RPM Max. Std.

Temperature: 80°C to -40°C (-40°C optional, -20°C standard)

Chemical: Polyurethane enamel paint protects against salt spray, mild acids, and bases

Enclosure Rating: IP66

Explosion Protection:

ATEX 0539 II 2 G Ex d e IIB T4 Gb

(Tamb = -40/-20°C to +80°C)

IECEX Ex d e IIB T4 Gb

(Tamb = -40/-20°C to +80°C)

Weight: 18 lbs. / 8kg.

Check out our website for more detailed specifications, drawings, and installation instructions. www.avtronencoders.com

All dimensions are in inches [millimeters].

Specifications and features are subject to change without notice.

SELECTION GUIDE

M6C PART NUMBERS AND AVAILABLE OPTIONS								
Model	Bore Size	Mounting Style	Line Driver	Left & Right Output Range	Base PPR	Marker	Connector	Modifications
M6C-	0- Non-Standard 4- 1" 5- 1 1/8"	S- End of Shaft	1- 5 to 24 VDC 8- 6.5 to 24 VDC	X- None L- Low Range (Base PPR x 1/2) M- Medium Range (Base PPR x 1) H- High Range (Base PPR x 2)	48- 480 51- 512 60- 600	Z- Marker - - None	T- Conduit Box, Terminal Block, 3/4" NPT W- Conduit Box, Terminal Block and Wire Gland	000- None 001- Low Temp (-40°C) 003- Torque Arm B28390 005- Low Temp (-40°C) & Torque Arm



Nidec Industrial Solutions
243 Tuxedo Avenue - Cleveland, Ohio 44131

encoderhelpdesk@nidec-industrial.com
+1 216-642-1230 - www.avtronencoders.com



Features and specifications are subject to change without notice.
EU-SMART™, SMARTSafe™, SMARTTach™, THIN-LINE™, WIDE-GAP™,
SAFETach™ and BULLSEYE32™ are trademarks of Nidec Industrial Solution.
All other trademarks and registered trademarks are the property of their
respective owners. Nidec Industrial Solutions' standard warranty applies.
All dimensions approximate.