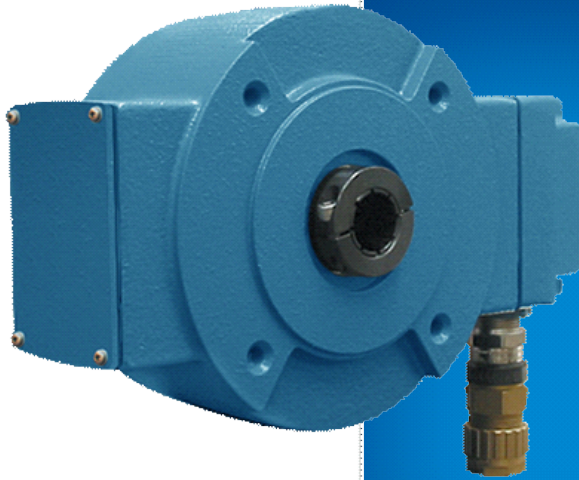


# Avtron M6C Encoder



**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](#). 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.

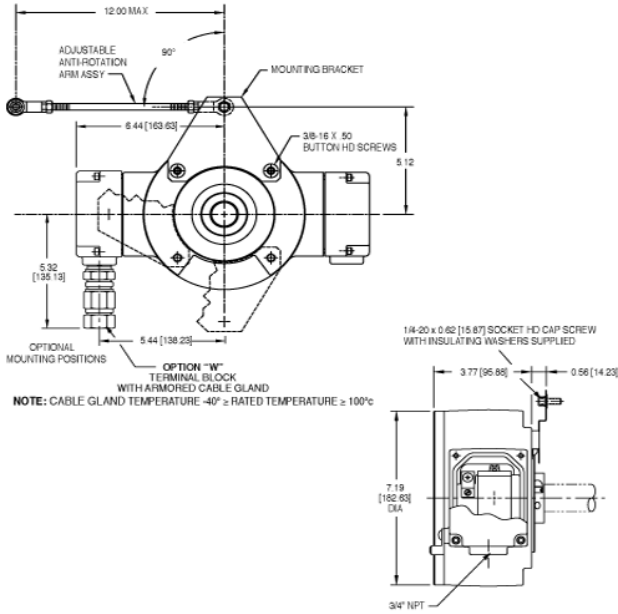
Why take a chance with weak optical encoders on your drilling rig? The M6C features Nidec-Avtron's rugged magnetic sensor and solid metal rotor technology. Our shatterproof, moisture proof systems ensure your application has maximum uptime. The hollow shaft (tethered) models offer direct mounting on 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:** 5-24 VDC; Current 120mA, no load

**Output Format:** A,A-, B,B-; Optional Marker Z,Z-

**Frequency Range:** 0 to 150 KHz

**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.avtroncoders.com](http://www.avtroncoders.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<br>4- 1"<br>5- 1 1/8" | S- End of Shaft | 1- 5 to 24 VDC<br>8- 6.5 to 24 VDC | X- None<br>L- Low Range<br>(Base PPR x 1/2)<br>M- Medium Range<br>(Base PPR x 1)<br>H- High Range<br>(Base PPR x 2) | 48- 480<br>51- 512<br>60- 600 | Z- Marker<br>-- None | T- Conduit Box,<br>Terminal Block,<br>3/4" NPT<br>W- Conduit Box,<br>Terminal Block<br>and Wire Gland | 000- None<br>001- Low Temp (-40°C)<br>003- Torque Arm B28390<br>005- Low Temp (-40°C) &<br>Torque Arm |

Nidec-Avtron Makes the Most Reliable Encoders in the World

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