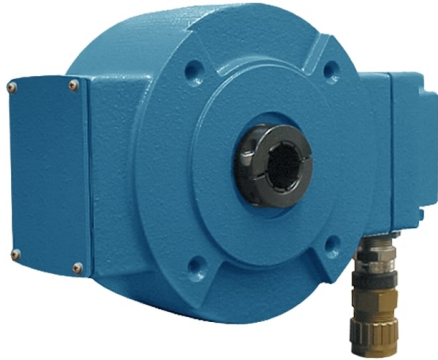




Avtron M6C Hazardous Area Encoder



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

Explosion-Proof Magnetic 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, XR56A 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 Avtron Encoders' 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.

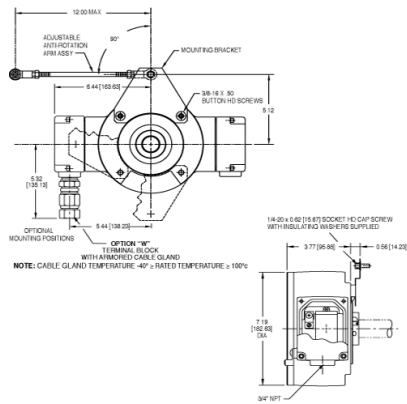
M6C also includes a complete wiring protection system--it can survive all types of wiring errors and drive signals down the longest cables.

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!

09/16/26

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

MORE 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 db eb IIB T4 Gb

(Tamb = -40/-20°C to +80°C)

IECEx Ex db eb IIB T4 Gb

(Tamb = -40/-20°C to +80°C)

Weight: 18 lbs. / 8kg.

All dimensions are in inches [millimeters].

Specifications and features are subject to change without notice.

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



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SELECTION GUIDE

☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
MODEL	HOLLOW SHAFT BORE SIZE	MOUNTING	LINE DRIVER	LEFT OUTPUT	RIGHT OUTPUT	BASE PPR	MARKER	CONNECTOR OPTIONS	MODIFICATIONS
M6C-	4 - 1 inch Hollow Shaft 5 - 1-1/8 inch Hollow Shaft	S - Standard End-of- Shaft Mounting	1 - 5-24V In/Out Line Driver 8 - 5-24V In/Out Protected Line Driver	X - No Left Output L - (Base PPR) x 1/2 M - (Base PPR) x 1 H - (Base PPR) x 2	X - No Right Output L - Low Res. M - Medium Res. H - High Res.	48 - 480 PPR 51 - 512 PPR 60 - 600 PPR	- - No Marker Z - Marker	T - Terminal Block W - Terminal with Cable Gland	000 - No Options, No Torque Arm Kit 001 - -40C tested Unit (No Torque Arm Kit Included) 003 - Includes B28390 Torque Arm Kit 005 - -40C Tested Unit with Torque Arm Kit Included Z00 - Special OEM Configuration with CCC Certification Z01 - Special Label, 3C Compliant, -40C tested Unit (No Torque Arm Kit Included) Z03 - Special Label, 3C Compliant, Includes B28390 Torque Arm Kit Z04 - Special Label, 3C Compliant Z05 - Special Label, 3C Compliant, -40C Tested Unit with Torque Arm Kit Included



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