

# 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

#### M<sub>6</sub>C

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.

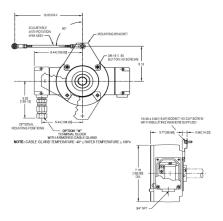
Why take a chance with weak optical encoders on your drilling rig? The M6C features Avtron Encoders' rugged magnetic sensor and solid metal rotor technology. Our shatterproof, moisture proof systems ensure your application has maximum uptime. The hollow shaft (tethered) models offer direct mounting on 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!

#### **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 d e IIB T4 Gb

 $(Tamb = -40/-20^{\circ}C \text{ to } +80^{\circ}C)$ ÎECEx Ex d e IIB T4 Gb  $(Tamb = -40/-20^{\circ}C \text{ to } +80^{\circ}C)$ 

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



## **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 - Low Res. M - Medium Res. H - High Res.	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 00140C tested Unit (No Torque Arm Kit Included) 003 - Includes B28390 Torque Arm Kit 00540C Tested Unit with Torque Arm Kit Included 200 - Special OEM Configuration with CCC Certification 201 - Special OEM Configuration with Torque Arm Kit Included 203 - Special Label, 30 Compliant, +40C tested Unit (No Torque Arm Kit Included) 203 - Special Label, 30 Compliant, Includes B28390 Torque Arm Kit 204 - Special Label, 30 Compliant, 205 - Special Label, 30 Compliant, 206 - Special Label, 30 Compliant, 40C Tested Unit with Torque Arm Kit Included