

# DC-Magnetic Encoder

**Features:**  
**16 cycles per revolution**  
**2 channels**  
**Digital output**

## Series ME2-16

		ME2-16	
Signal output, square wave		2	channels
Supply voltage	V <sub>cc</sub>	3.3 to 18	VDC
Current consumption, typical (V <sub>cc</sub> = 5 V DC)	I <sub>cc</sub>	7.5	mA
Pulse width	P	180 ± 45°	°e
Phase shift, channel A to B	Φ	90° ± 45°	°e
Logic state width	S	90° ± 45°	°e
Cycle	C	360° ± 30°	°e
Signal rise/fall time, typical	tr/tf	110 / 55 (C <sub>L</sub> =10pf)	nsec
Frequency range <sup>(1)</sup>	f	15	kHz
Inertia of code disk	J	0.019	gcm <sup>2</sup>
Operating temperature range		- 40 to + 85	°C

<sup>(1)</sup> Velocity (rpm) = f (Hz) x 60/N

### Ordering information

Encoder type	number of channels	cycles per revolution	in combination with DC Micromotor Series
ME2-16	2	16	MD1622E MD2230 M2232U..GS050 M2232U..CS050

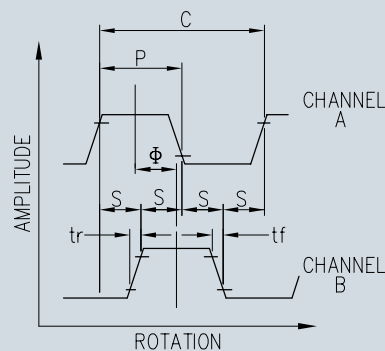
### Features

These incremental shaft encoders in combination with the Micro-Drives DC-Micromotors are designed for indication and control of both shaft velocity and direction of rotation as well as for positioning.

Solid state Hall sensors and a low inertia magnetic disc provide two channels with 90° phase shift.

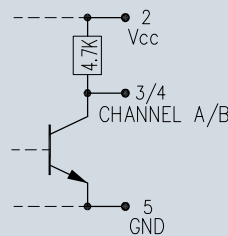
The supply voltage for the encoder and the DC-Micromotor as well as the two channel output signals are interfaced with a 150 mm ribbon cable and a 6-pin connector.

### Output signals / Circuit diagram / Connector information

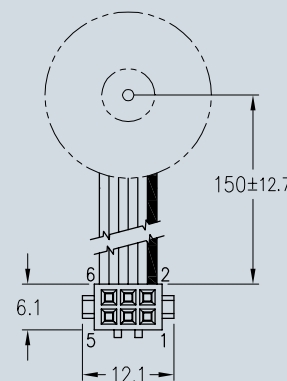


**OUTPUT SIGNALS**

with clockwise rotation as seen from the shaft end



**OUTPUT CIRCUIT**



### PIN FUNCTION

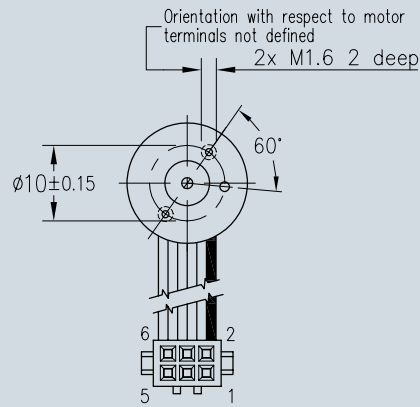
- 1 Motor-
- 2 Motor+
- 3 GND
- 4 Vcc
- 5 Channel B
- 6 Channel A

### STANDARD CONNECTOR (6P)

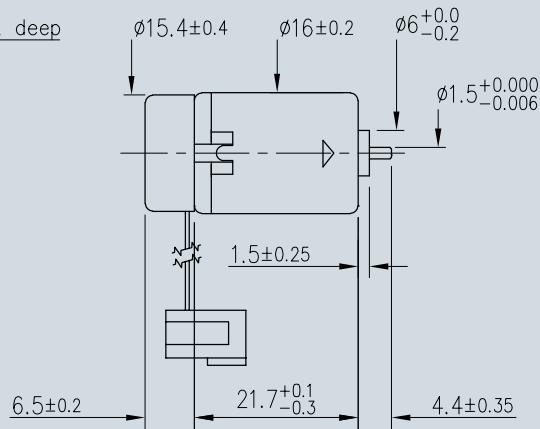
Berg: FCI 71600-106LF  
Polarized  
.050" Ribbon Cable PVC  
6 conductors 28AWG  
Mating Connector:  
Header: FCI 75869-131

## Series Encoder ME2-16

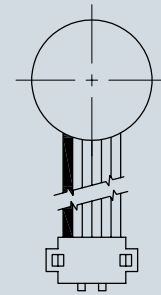
Encoder ME2-16 with motor MD1622E



Front View



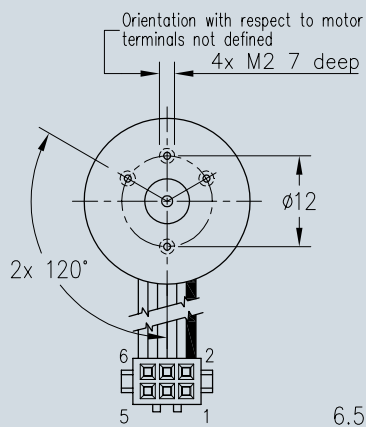
ME2-16 + MD1622E



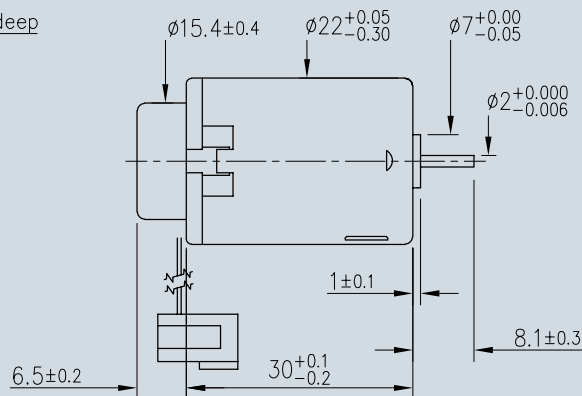
Rear View



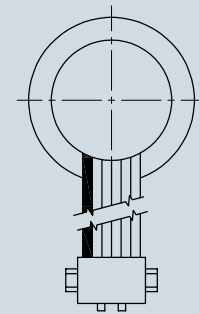
Encoder ME2-16 with motor MD2230



Front View



ME2-16 + MD2230

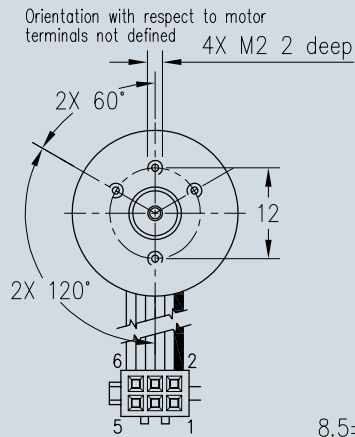


Rear View

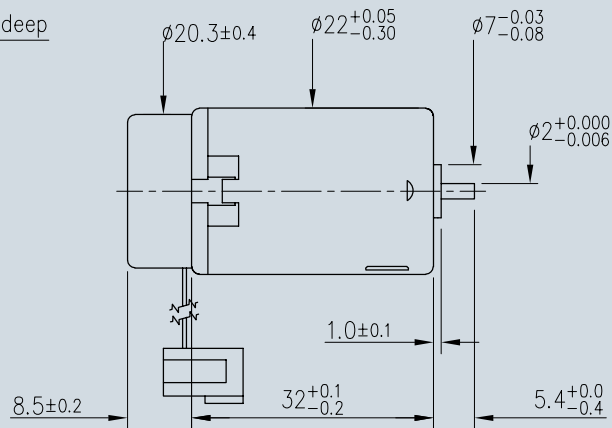


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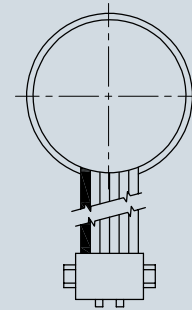
Encoder ME2-16 with motor M2232U...CS



Front View

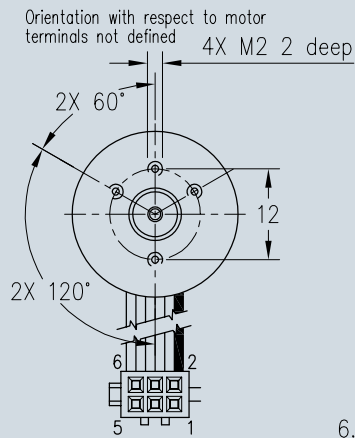


ME2-16 + M2232U...CS

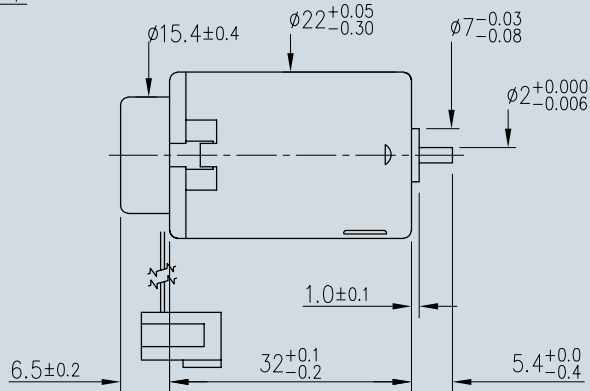


Rear View

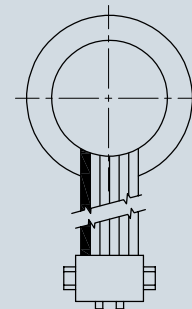
Encoder ME2-16 with motor M2232...GS



Front View



ME2-16 + M2232U...GS



Rear View

