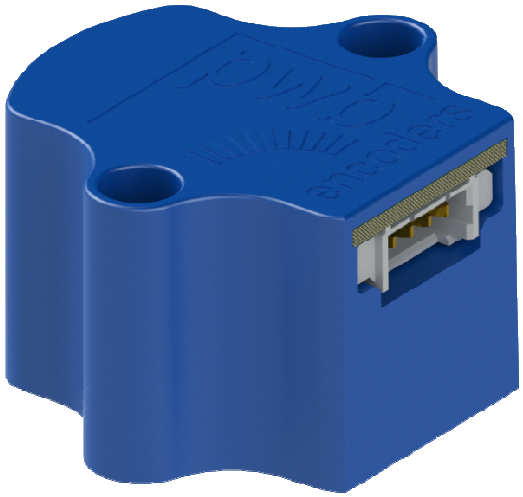
Incremental Encoder
Magnetic



Ordering Code

MEM 20 - I - 2 - 64 - 05 - D - S - LO

Description

The MEM 20 is a magnetic incremental encoder. He is a reliable low cost hollow shaft encoder that can be fixed quickly and easily on the motor shaft.
The encoder is developed for brushless motors, motor feedback applications and rotational speed control. The MEM 20 is a real time system for high speed applications and rough environments.
The encoder provides two square wave outputs in quadrature (90 degrees phase shifted) for counting and direction information.
Power supply and signals are provided by a 4 pin Molex connector.

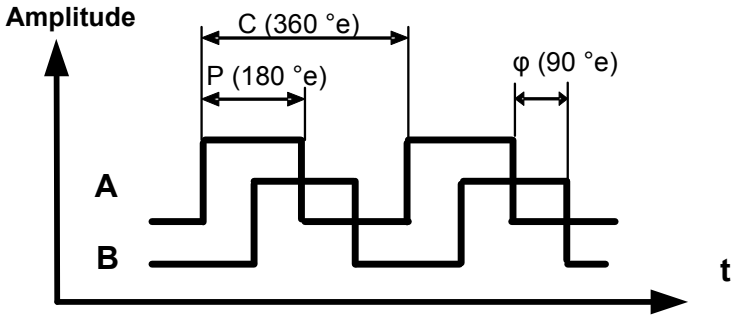
PWB encoders GmbH Am Goldberg 2 D-99817 Eisenach Germany
info@pwb-encoders.com / www.pwb-encoders.com

Electrical conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Supply voltage	U_B	4.5	5.0	5.5	V_{DC}	
Supply current	I_{UB}	15	25	35	mA	no load
Reverse polarity protection	U_B		None			
Output current per channel	I_{out}	-10		10	mA	internal pull-up 2,7k?
High level output voltage	V_{oH}	2.0		5.5	V_{DC}	
Low level output voltage	V_{oL}			0.8	V_{DC}	
Pulse with	P		180		°e	
Phase shift			90		°e	
Resolution			64		cpr	
Protection class			00		IP	
ESD voltage	U_{ESD}			2	kV	discharged over 1,5kΩ
Environment						
Operating temperature	T_A	-20	25	85	°C	
Magnet axis displacement				0.2	mm	vs. center of sensor

Mechanical conditions

Parameter	Value	Tolerance	Unit
Outer dimensions	Ø 22.0 x 12	-	mm
Shaft diameter **Ø**	3.0	h7	mm
Required shaft length L_W	6	-0,5	mm
Max. allowable axial shaft play of motor	0.2	-	mm
Max. allowable radial shaft play of motor	0.025	-	mm



Connector Pin	Connector Signal
1	A
2	B
3	UB
4	GND

ESD Warning: Normal handling precautions should be taken to avoid static discharge damage to the sensor.