

#### GIVI MISURE s.r.l.

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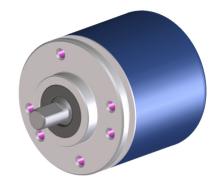
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Code	Project	Release	Title		
ST06	A02	В	TECHNICAL DATASHEET		

## **OPTICAL ENCODER EN38MN**

## **GENERAL FEATURES**

- Incremental optical rotary encoder with small overall
- Flange and body made of aluminium.
- Sealed cable output either radial or axial position.



# **MECHANICAL AND ELECTRICAL FEATURES**

#### **MECHANICAL**

- Flange and body made of aluminium.
- Ring for high protection.
- Shaft made of stainless steel.
- Ball bearings.
- Fixing by no. 3 screws M3 at 120° or no. 4 screws M3 at 90°.
- · Centring diameter 20mm.
- High rotational precision.
- High protection against environmental conditions.

## **ELECTRICAL**

- · Protection against shortcuts.
- High stability of output signals.

0 1 F11001111					
Code EN38MN	PP	L5			
Pulses per revolution	from 5 to	from 5 to 3600 ppr			
Max. rotating speed	momentary	8000rpm			
Max. Totaling speed	permanent	6000rpm			
Max. load on shaft	30 N (radial)	<ul><li>30 N (axial)</li></ul>			
Shaft (diameter A x length L) mm	ø6 h7 ·	ø6 h7 – ø8 h7			
Protection class	`	IP65 (standard) *			
		ptional)			
Operating temperature		0 ÷ 70° C			
Storage temperature	-20 ÷	-20 ÷ 80° C			
Humidity	20 ÷ 90 % (no	20 ÷ 90 % (not condensed)			
Power supply	5 ÷ 28V ± 10%				
Current consumption at 5V	40	mA			
Max. output current	40 mA	70 mA			
Max. frequency	120	kHz			
Output	Push-Pull Line Driv				
Standard length of cable	1m				
Electrical connections	see rel. table				
Electrical protections	inversion of power supply polarity				
Liectrical protections	short-circuits on output port				
Weight	80 g				

It is important to note that shaft rotates more freely in the version with protection class IP65.

ORDERING CODE							
MODEL	CABLE OUTPUT	PPR	POWER SUPPLY	SHAFT Ø	CABLE	OUTPUT	OPTIONS
EN38MN	HR	xxxxx	05V	D06	M01	L5 C	V2
	HR = radial HA = axial		05V = 5V 0528 = 5÷28V	<b>D06</b> = ø6mm <b>D08</b> = ø8mm	M0.5 = 0.5m M01 = 1m M40 = 40m <sub>MAX</sub>	L5 C = LINE DRIVER PP C = PUSH-PULL	No code = standard configuration

Example OPTICAL ENCODER EN38MN HR 00300 05V D06M01 L5 C V2



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# Cable 8 cores Æ = 4.5mm, PVC external sheath Wires section:

**CABLE AND ELECTRICAL CONNECTIONS** 

- for power supply: 0.14mm<sup>2</sup> - for signals: 0.14mm<sup>2</sup>

Cable 5 cores Æ = 4.1mm, PVC external sheath

Wires section:

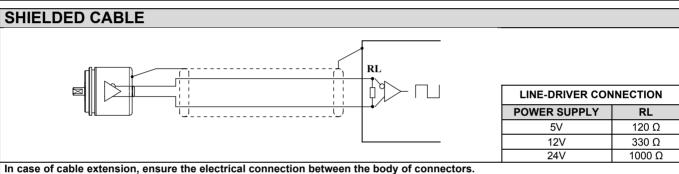
- for power supply: 0.35mm<sup>2</sup> - for signals: 0.14mm

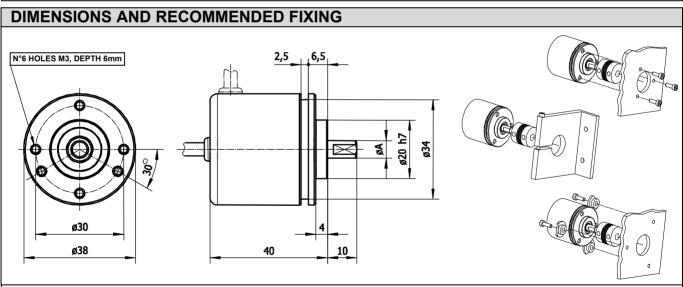
NOTES:

Respect a minimum bending radius of 50mm for cables.

N.C. =	Wire	not	conr	rected
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P	PP	L5		
SIGNAL	SIGNAL WIRE COLOUR		WIRE COLOUR	
Α	Green	Α	Green	
В	White	В	White	
Z	Brown	Z	Brown	
		Ā	Orange	
		ΙB	Light Blue	
		Z	Yellow	
V+	Red	V+	Red	
GND	Blue	GND	Blue	
4	Shield	4	Shield	





- Use an elastic coupling for shaft junction.
- For fixing through brackets, drill on the mounting surface no. 3 holes M4 on a diameter of 50mm.

## WHAT TO AVOID

- Any type of mechanical working (cut, drill, mill, etc.)
- Any modification either on the body or on the shaft of the encoder
- Any kind of bad usage
- External hits or stresses

