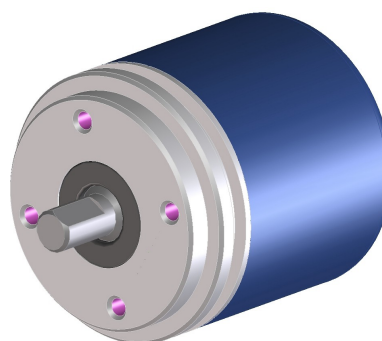


Code	Project	Revision	Title
ST04	A02	B	TECHNICAL DATASHEET

OPTICAL ENCODER EN380N

GENERAL FEATURES

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



MECHANICAL AND ELECTRICAL FEATURES

MECHANICAL <ul style="list-style-type: none"> • Flange and body made of aluminium • Ring for high protection • Stainless steel shaft • Ball bearings • High protection against environmental conditions ELECTRICAL <ul style="list-style-type: none"> • Protection against shortcuts • High stability of output signals 	Cod. EN380N	PP	L5
		Number of pulses/revolution	From 5 to 3600 ppr
	Max rotational speed	8000 rpm (peak) 6000 rpm (continuous)	
	Max load on the shaft	30 N (radial) 30 N (axial)	
	Shaft diameter	ø6 h7 - ø8 h7	
	Protection class	IP65 (standard) IP67 (optional)	
	Operating temperature	0 ÷ 70° C	
	Storage temperature	-20 ÷ 80° C	
	Humidity	20 ÷ 90 %	
	Power supply voltage	5 ÷ 28V ± 10%	
	Current consumption at 5Volts	40 mA	
	Max output current	40 mA	70 mA
	Max frequency	120 kHz	
	Output	Push Pull	Line Driver
	Standard length of cable	1m	
	Electrical connections	See the rel. table	
	Electrical protections	Inversion of Power Supply Polarity Short Circuit on output port	
	Weight	80 g	

ORDERING CODE

MODEL	CABLE OUTPUT	PPR	POWER SUPPLY	SHAFT Ø	CABLE	OUTPUT	OPTIONS
EN380N	HR	xxxxx	05V	D06	M01	L5 C	V2

HR = radial output

HA = axial output

05V = 5V

0528 = 5÷28V

D06 = ø6 mm

D08 = ø8 mm

M0.5 = 0.5m

M01 = 1m

 M40 = 40m_{max}

L5 C = Line Driver

PP C = Push-Pull

No code = standard configuration

V2 = protection class IP67

Example **EN380N HR 00300 05V D06M01 L5 C V2**

Code	Project	Revision	Title
ST04	A02	B	TECHNICAL DATASHEET

CABLE AND ELECTRICAL CONNECTIONS		PP		L5	
		SIGNAL	WIRE COLOUR	SIGNAL	WIRE COLOUR
Cable 8 cores $\varnothing = 4.5\text{mm}$, PVC external sheath Wires section: - for power supply: 0.14mm^2 - for signals: 0.14mm^2		A	Green	A	Green
		B	White	B	White
Cable 5 cores $\varnothing = 4.1\text{mm}$, PVC external sheath Wires section: - for power supply: 0.35mm^2 - for signals: 0.14mm^2		Z	Brown	Z	Brown
				A	Orange
NOTES: Respect a minimum bending radius of 50mm for cables.				B	Light Blue
				Z	Yellow
		V+	Red	V+	Red
		GND	Blue	GND	Blue
			Shield		Shield

N. C. = Wire not connected

SHIELDED CABLE

LINE-DRIVER CONNECTION	
POWER SUPPLY	RL
5V	120 Ω
12V	330 Ω
24V	1000 Ω

In case of cable extension, ensure the electrical connection between the body of connectors.

DIMENSIONS AND RECOMMENDED FIXING

N°4 HOLES M3, DEPTH 6mm

- Use an elastic coupling for shaft junction.
- For fixing through brackets, drill on the mounting surface n. 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