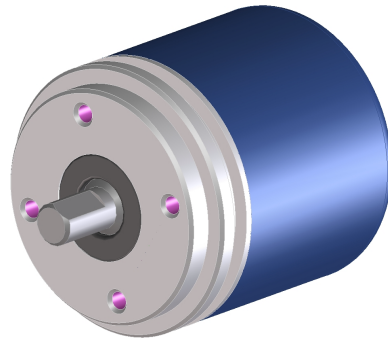


Code	Project	Revision	Title
ST04	A02	B	TECHNICAL DATASHEET

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	Cod. EN380N		PP	L5	
	<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 	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**

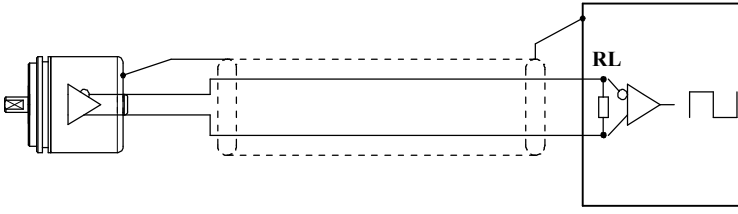
Code ST04	Project A02	Revision B	Title TECHNICAL DATASHEET
---------------------	-----------------------	----------------------	-------------------------------------

CABLE AND ELECTRICAL CONNECTIONS

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

N.C. = Wire not connected

SHIELDED CABLE

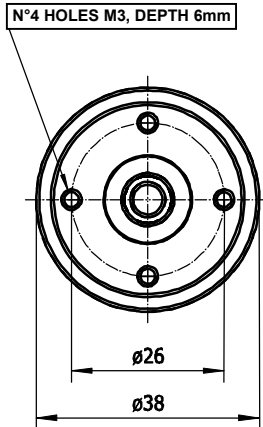


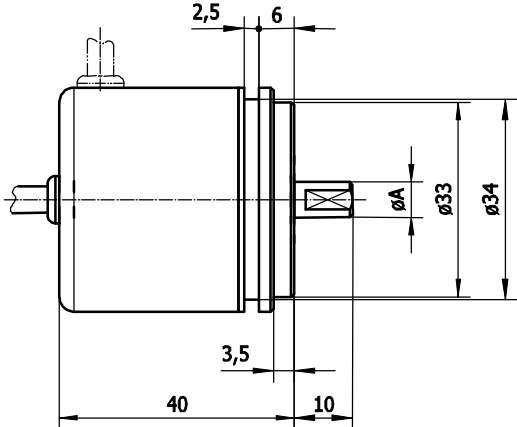
LINE-DRIVER CONNECTION	
POWER SUPPLY	RL
5V	120 Ω
12V	330 Ω
24V	1000 Ω

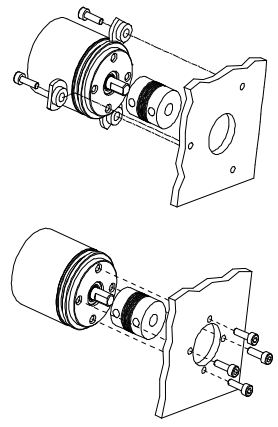
In case of cable extension, ensure the electrical connection between the body of connectors.

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

<ul style="list-style-type: none"> 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 	
---	---