GIVI MISURE

MEGATRON AG
FERROXCUBE DISTRIBUTOR FOR MAGNETIC COMPONENTS

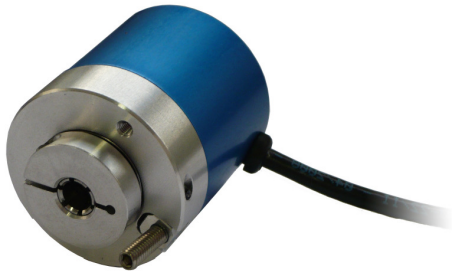
Megatron AG – Gewerbehaus Ergolz, Wölferstrasse 5
4414 Füllinsdorf
Telefon: +41 (0)55 617 00 88
E-Mail: sales@megatron.ch
www.megatron.ch

Code	Project	Release	
ST18	***A02-D***	***A***	***TECHNICAL DATASHEET***

OPTICAL ENCODER EN38SC

GENERAL FEATURES

- Small-size optical rotary encoder, suitable for applications with limited installation space.
- Bi-directional signals with zero pulse.
- Aluminium flange and housing.
- Radial or axial cable output.
- Low profile.
- Suitable for motor feedback.



MECHANICAL AND ELECTRICAL CHARACTERISTICS

MECHANICAL

- Flange and housing made of aluminium.
- Stainless steel shaft.
- Ball bearings with special high-sealed screens.
- High protection even in harsh environmental conditions.

ELECTRICAL

- Protection against short circuits.
- Protection against inversion of polarity.
- High stability of output signals.
- Reading device with infra-red light emitter and receiving photodiodes.

Cod. EN38SC	PP	L5
Pulses per revolution	5 ÷ 3600 ppr	
Max. rotating speed	continuous 6000 rpm momentary 8000 rpm	
Max. shaft load	30 N (axial) - 30 N (radial)	
Shaft (hole diameter A) mm	ø5 H7 - ø6 H7 - ø8 H7	
Hole depth	15 mm	
Operating temperature	0 °C ÷ 70 °C	
Storage temperature	-20 °C ÷ 80 °C	
Relative humidity	20 ÷ 90 % (not condensed)	
Protection class (EN 60529)	IP 64	
Torque	≤ 1 Ncm	
Output	Push-Pull	Line Driver
Power supply	5 ÷ 28 V ± 10%	
Max. frequency	120 kHz	
Current consumption at 5 V	40 mA	
Max. output current	40 mA	70 mA
Standard cable length	1 m	
Electrical connections	see related table	
Electrical protections	inversion of polarity and short circuits	
Weight	80 g	

ORDERING CODE

MODEL	FIXING	CABLE OUTPUT	PPR	POWER SUPPLY	Ø SHAFT	CABLE	OUTPUT
EN38SC	**1**	**HR**	**xxxx**	**05V**	**D06**	**M01**	**L5 C**

1 = elastic flange
No cod. = anti-rotation pivot

HR = radial
HA = axial

05V = 5 V
0528V = 5 ÷ 28 V

D05 = ø5 mm
D06 = ø6 mm
D08 = ø8 mm

M0.5 = 0.5 m
M01 = 1 m
M40 = 40 m_{MAX}

L5 C = LINE DRIVER
PP C = PUSH-PULL

Example **OPTICAL ENCODER EN38SC 1 HR 0300 05V D06 M01 L5 C**

GIVI MISURE

MEGATRON AG
FERROXCUBE DISTRIBUTOR FOR MAGNETIC COMPONENTS

Megatron AG – Gewerbehaus Ergolz, Wölferstrasse 5
4414 Füllinsdorf
Telefon: +41 (0)55 617 00 88
E-Mail: sales@megatron.ch
www.megatron.ch

Code	Project	Release	
ST18	***A02-D***	***A***	***TECHNICAL DATASHEET***

CABLE AND ELECTRICAL CONNECTIONS

Cable 8 wires ∅ = 4.5 mm, PVC external sheath

Conductors section:
- power supply: 0.14 mm²
- signals: 0.14 mm²

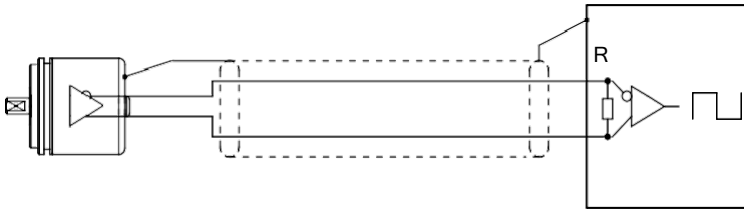
Cable 5 wires ∅ = 4.1 mm, PVC external sheath

Conductors section:
- power supply: 0.35 mm²
- signals: 0.14 mm²

NOTE
The cable's bending radius should not be lower than 50 mm.

PP		L5	
SIGNAL	**CONDUCTOR COLOR**	**SIGNAL**	**CONDUCTOR COLOR**
A	Green	A	Green
B	White	B	White
Z	Brown	Z	Brown
		$\overline{A}$	Orange
		$\overline{B}$	Light blue
		$\overline{Z}$	Yellow
V+	Red	V+	Red
GND	Blue	GND	Blue
⏚	Shield	⏚	Shield

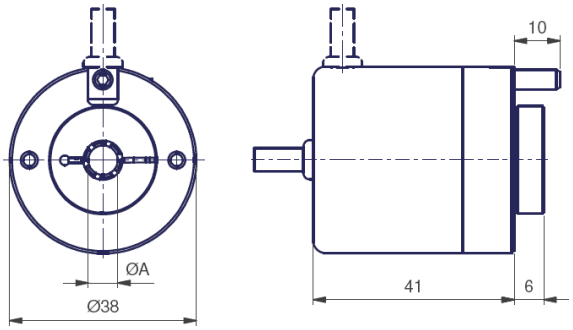
SHIELDED CABLE



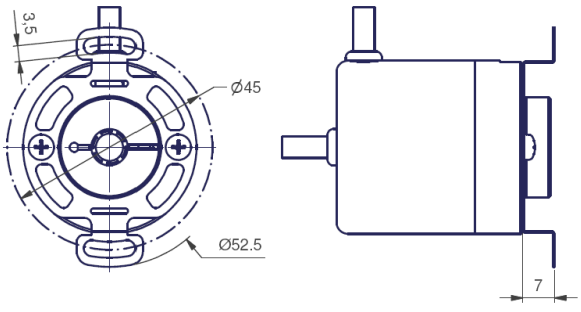
LINE DRIVER CONNECTION	
POWER SUPPLY	**R**
5 V	120 Ω
12 V	330 Ω
24 V	1000 Ω

DIMENSIONS

STANDARD VERSION



ELASTIC FLANGE VERSION



WHAT TO AVOID

- Any mechanical working (cutting, drilling, milling, etc.).
- Any modification of the encoder body or shaft.
- Any improper use, not complying with the technical instructions provided by the Manufacturer.
- External shocks or stresses.