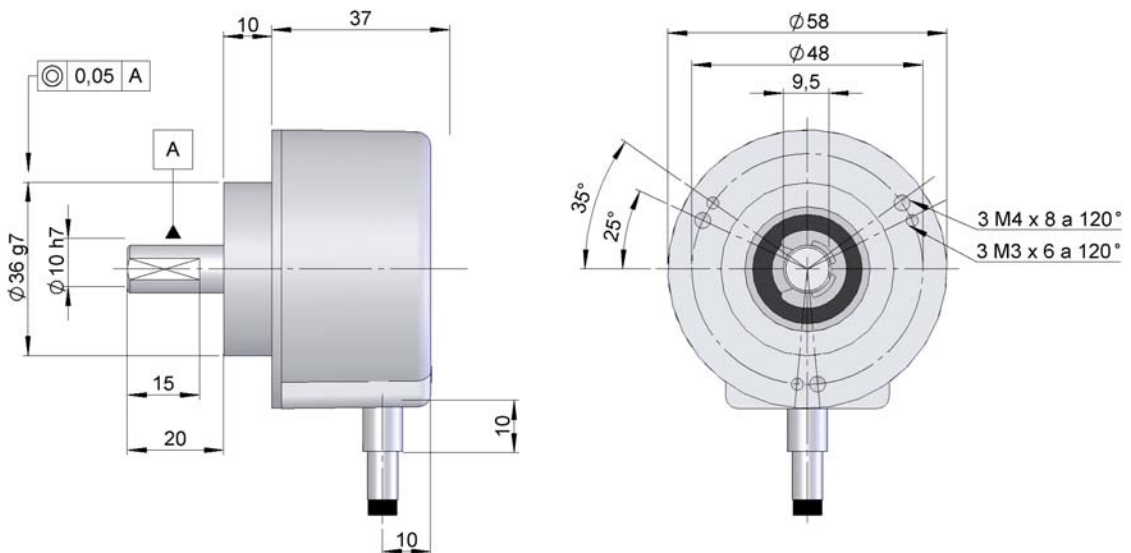
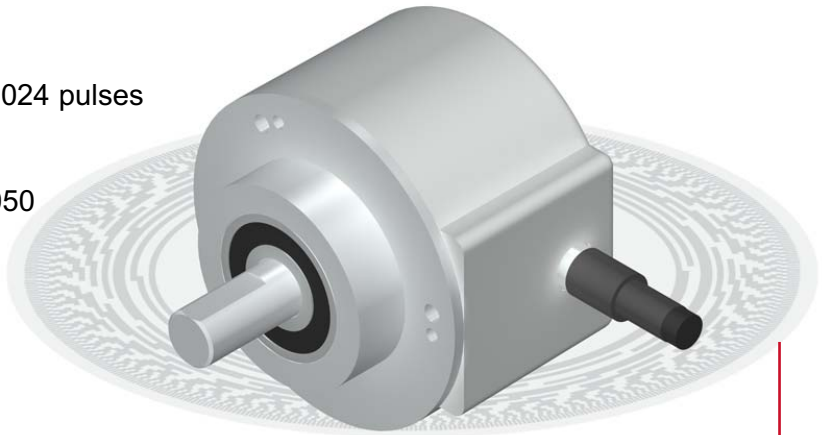


SERIE 11

INCREMENTAL SOLID SHAFT ENCODER LOW COST FOR INDUSTRIAL APPLICATIONS

- Any number of pulses available from 1 to 1024 pulses
- External diameter 58 mm
- Shaft 10 mm
- Protection class IP64 according to DIN 40050
- Connection by cable (any cable length available or air industrial connector)



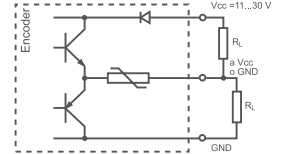
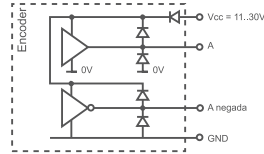
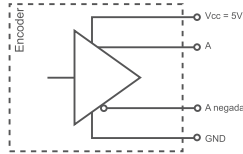
Previous mounting and installation of the encoder is recommended to read the section "TECHNICAL CONSIDERATIONS".

MECHANICAL SPECIFICATIONS

Housing	Aluminium
Shaft	Stainless steel
Bearings	Ballraces
Bearings lifetime	1x10 ¹⁰ rev
Maximum number of revolutions permitted mechanically	6000 rpm
Protection against dust and splashes according to DIN 40050	IP64
Rotor inertia moment	30 gcm ²
Starting torque at 20°C (68°F)	Max. / 2,0 Ncm
Maximum load permitted on axial shaft	40 N
Maximum load permitted on radial shaft	60 N
Weight aprox.	0,5 Kg
Operating temperature range	-20°C a +80°C
Vibration	100 m/s ² (10Hz...2000Hz)
Shock	1000 m/s ² (6ms)
Maximum pulses per turn	1024
Axial or radial connection	Cable 2 metres or industrial connector (other cable lengths available on order)

ELECTRICAL SPECIFICATIONS

OUTPUT SIGNALS



	RS422 (TTL compatible)	Push-Pull Differential	Push-Pull without inverted
Power supply	5 V ±5%	11...30 V	11...30V
Consumption	Typical: 70 mA Max: 150 mA	Typical: 45 mA Max: 150 mA	Typical: 45 mA Max: 150 mA
Max.load capability	±20 mA	±30 mA	±30 mA
Length of cable allowed	1200 m	100 m	50 m
"Low" signal level	$V_{OL} < 0,5 V$	$V_{OL} < 2.5 V$	$V_{OL} < 2.5 V$
"High" signal level	$V_{OH} > 2.5 V$	$V_{OH} > V_{cc} - 3 V$	$V_{OH} > V_{cc} - 3 V$
Frequency	300 kHz	200 kHz	200 kHz
Short circuit protection	Yes	Yes	Yes
Protection against polarity inversion	No	Yes	Yes
Channel B leads (90° electric) channel A			

CONNECTION

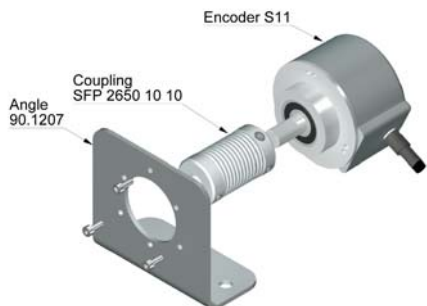


	Cable 5x0.14	Cable 3x2x0,14+2x0,34
GND	Yellow	Black
Vcc	White	Red
A	Brown	Yellow
B	Green	Green
A inverted		Brown
B inverted		Blue
0 (reference)	Grey	Grey
0 inverted	Grey	Orange

ORDERING CODE

SERIE	SHAFT	FLANGE	OUTPUT SIGNALS	CONNECTION	ELECTRONIC OUTPUT	PULSES NUMBER	SPECIAL CUSTOMER
11	● 1- Ø10 x 20 mm	● 1-None	● 1- A 2- A + B 3- A + B + 0 5- A \bar{A} + B \bar{B} 6- A \bar{A} + B \bar{B} + 0 $\bar{0}$ 9- A + B + 0	● 3- Radial cable	● 1- Push-Pull 11..30V (without inverted) 7- Standard RS422. 5V. Compatible TTL 9- Differential line driver. Push-Pull 11..30V	●●●●●●●●●●	●●●●●●●●●●

ACCESSORIES



All the accessories available in the sections "SIGNAL CONDITIONERS" and "MOUNTING ACCESSORIES".