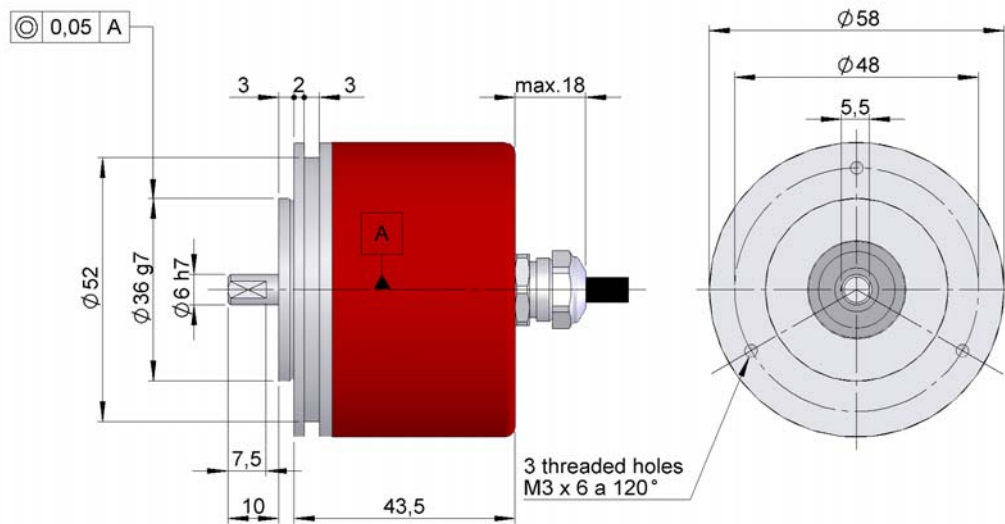
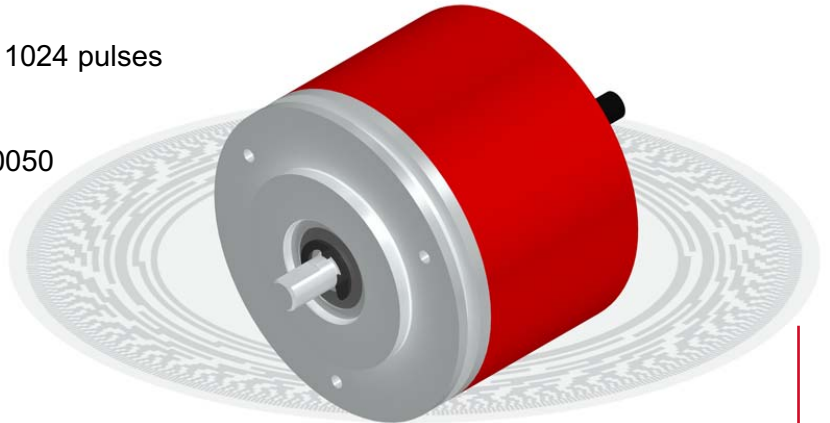


# SERIE 20

## SOLID SHAFT INCREMENTAL ENCODER FOR SIMPLE INDUSTRIAL APPLICATIONS

- Any number of pulses available from 1 to 1024 pulses
- External diameter 58 mm
- Shaft 6 mm
- Protection class IP54 according to DIN 40050
- Different flanges available
- Connection by cable (any cable length available or air industrial connector)



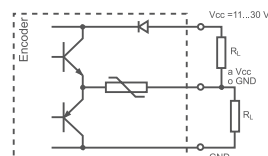
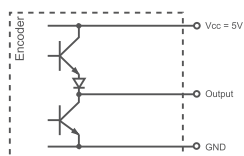
Previous mounting and installation of the encoder is recommended to read the section "TECHNICAL CONSIDERATIONS".

### MECHANICAL SPECIFICATIONS

Housing	Aluminium.
Shaft	Stainless Steel.
Bearings	Ballraces.
Bearings lifetime	1x10 <sup>10</sup> rev.
Maximum number of revolutions permitted mechanically	6000 rpm.
Protection against dust and splashes according to DIN 40050	IP54.
Rotor inertia moment	10 gcm <sup>2</sup> .
Starting torque at 20°C (68°F) ,	Max. / 0,5 Ncm.
Maximum load permitted on axial shaft	20 N.
Maximum load permitted on radial shaft	30 N.
Weight aprox.	0,3 Kg.
Operating temperature range	-20°C to +60°C.
Vibration	100 m/s <sup>2</sup> (10Hz...2000Hz).
Shock	1000 m/s <sup>2</sup> (6ms).
Maximum pulses per turn	1.024.
Axial connection	Cable 2 metres (other cable lengths available on order).

## ELECTRICAL SPECIFICATIONS

### OUTPUT SIGNALS



#### TTL

#### Push-Pull

Power supply	5 V	11...30V
Consumption	Typical: 120 mA Max: 150 mA	Typical: 45 mA Max: 150 mA
Max. load capability	±40 mA	±30 mA
Length of cable allowed	100 m	50 m
"Low" signal level	$V_{OL} < 0,2 V$	$V_{OL} < 2,5 V$
"High" signal level	$V_{OH} > 2,4 V$	$V_{OH} > V_{CC} - 3 V$
Frequency	100 kHz	200 kHz
Short circuit protection	Yes	Yes
Protection against polarity inversion	No	Yes
Channel B leads (90° electric) channel A		

### CONNECTION



#### Cable 5x0.14

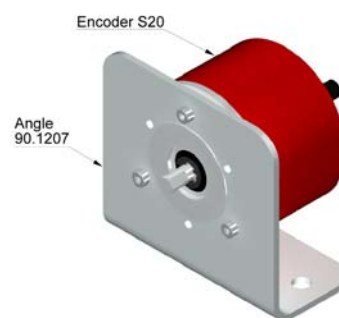
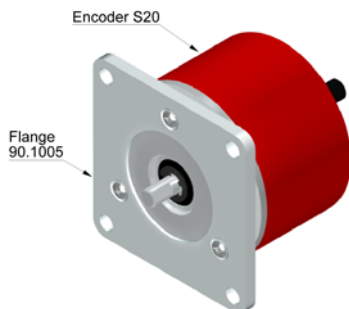
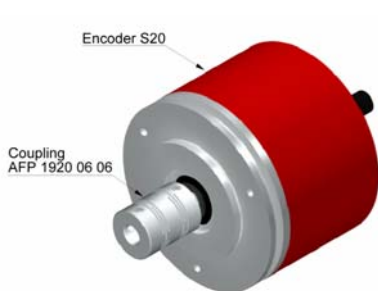
#### Cable 3x2x0,14+2x0,34

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
20	● 1- Ø6 x 10 mm	● 1-None 2- 90.1002 3- 90.1004 4- 90.1005	● 1- A 2- A + B 3- A + B + 0 5- A + B 6- A + B + 0 9- A + B + 0	● 2- Axial cable	● 1- Push-Pull 11..30V 2- Line driver. TTL 5V.	●●●●●	●●●●●

## ACCESSORIES



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