

Miniature Encoder magnetic

AC1201 / AC1200 (shaft / hollow shaft)

SSI / RS485



The absolute singleturn encoders 1201 and 1200 with SSI interface and magnetic sensor technology are the specialists when space is tight.

Because of their high 12 bit resolution with 4096 different positions for 360° they offer exceptional repeat accuracy.



Technical data

Mechanical characteristics		
Maximum speed		12000 min ⁻¹
Mass moment of inertia		approx. 0.1 x 10 ⁻⁶ kgm ²
Starting torque - at 20°C [68°F]		< 0.01 Nm
Shaft load capacity	radial	10 N
	axial	20 N
Weight		approx. 0.06 kg [2.11 oz]
Protection acc. to EN 60529	housing side	IP65 (IP67 on request)
	flange side	IP50 (IP67 on request)
Working temperature range		-20°C ... +85°C [-4°F ... +185°F]
Material	shaft / hollow shaft	stainless steel
	clamping ring	MS58
Shock resistance acc. to EN 60068-2-27		1000 m/s ² , 6 ms
Vibration resistance acc. to EN 60068-2-6		100 m/s ² , 55 ... 2000 Hz

Electrical characteristics SSI interface	
Sensor	
Power supply	5 (+0,4) V DC ¹⁾
Power consumption (no load)	< 40 mA
Reverse polarity protection of the power supply	yes
Measuring range	360°
Resolution	12 bit
Code	gray
Linearity, 25°C [77°F]	< 1.5°
Repeat accuracy	≤ 0.4°
Data refresh rate	typ. 100 µs
CE compliant acc. to	EMC guideline 2004/108/EC RoHS guideline 2011/65/EU
SSI interface	
SSI clock speed	100 kHz ... 750 kHz
Output driver	RS485
Monoflop time	typ. / max. 16 µs / 20 µs
Short circuit proof output	yes ²⁾
Permissible load / channel	typ. 60 Ohm (acc. to RS485)

Terminal assignment

Interface	Type of connection	Cable (isolate unused wires individually before initial start-up)						
2	Shield Cable	Signal:	0 V	+V	C+	C-	D+	D-
		Cable colour:	WH	BN	GN	YE	GY	PK

+V : Encoder power supply +V DC
 0 V : Encoder power supply ground GND (0 V)
 C+, C- : Clock signal
 D+, D- : Data signal

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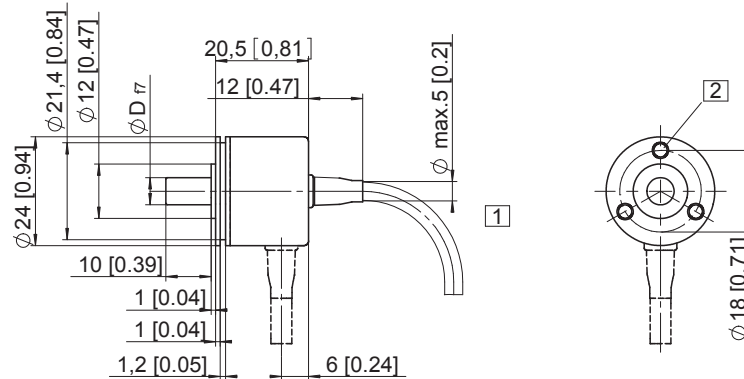
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Dimensions shaft version

Dimensions in mm [inch]

Flange type 1, $\varnothing 24$ [0.94]

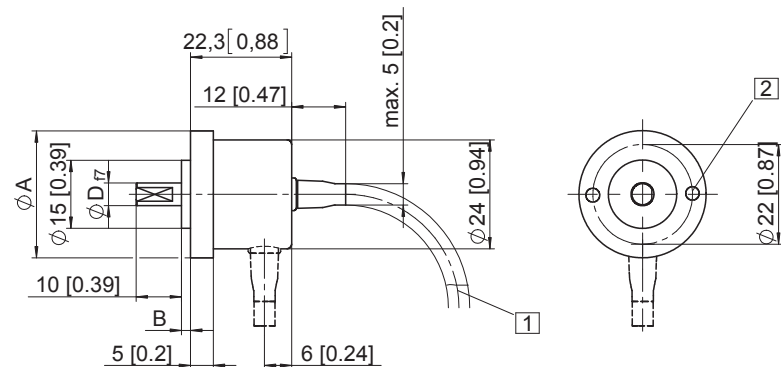
- 1 min. R50 [1.97]
- 2 3 x M3, 4 [0.16] deep



Flange type 2, $\varnothing 30$ [1.18]

Flange type 3, $\varnothing 28$ [1.10]

- 1 min. R50 [1.97]
- 2 2 x M3, 4 [0.16] deep



Flange type	A	B
2	$\varnothing 30$ [1.18]	3 [0.12]
3	$\varnothing 28$ [1.10]	2 [0.08]

Dimensions hollow shaft version

Dimensions in mm [inch]

Flange type 1, $\varnothing 24$ [0.94]

- 1 4 x M3 DIN 915 - SW1.5

