

Rotary Measuring Technology

Incremental shaft encoder

Miniature Type 2400



- High performance at a competitive price
- IP 64
- Wide temperature range (-20 ... +85 °C)
- Chromated housing is resistant to cooling lubricants and other environmental influences
- Sturdy cable outlet with multiple clamping
- Temperature compensation
- Broad input voltage range (5 ... 24 V or 8 ... 30 V)
- Highly flexible cable withstands constant flexing from 0 °C ... 70 °C)
- Low power consumption despite high scanning rate
- Reverse connection protected and Short-circuit proof
- **Kübler encoder type 24xx meet German Railways standard EN 50121****

Mechanical characteristics:

Speed:	max. 12 000min ⁻¹
Rotor moment of inertia:	appr. 0,1 x 10 ⁻⁶ kgm ²
Starting torque:	<0,001 Nm
Radial load capacity of shaft:	10 N
Axial load capacity of shaft:	20 N
Weight:	appr. 0,06 kg
Protection acc. to EN 60529:	IP 64
Working temperature:	-20° C ... +85 °C
Operating temperature:	-20° C ... +90 °C
Shaft	stainless steel
Shock resistance acc. to DIN-IEC 68-2-27	1000 m/s ² , 6 ms
Vibration resistance acc. to DIN-IEC 68-2-6:	100 m/s ² , 55 ... 2000 Hz

Electrical characteristics:

Output circuit:	Push-pull	Push-pull
Supply voltage:	5 ... 24 V DC	8 ... 30 V DC
Power consumption (no load):	max. 50 mA	max. 50 mA
Permissible load/channel:	max. 50 mA	max. 50 mA
Pulse frequency:	max. 160 kHz	max. 160 kHz
Signal level high:	min. U _B -2,5 V	min. U _B -3 V
Signal level low:	max. 0,5 V	max. 2,5 V
Rise time t _r :	max. 1 µs	max. 1 µs
Fall time t _f :	max. 1 µs	max. 1 µs
Short circuit proof outputs:	yes	yes
Conforms to CE requirements acc. to EN 61000-6-1, EN 61000-6-4 and EN 61000-6-3		

Applications:

- Pick and place machines
- Handling machines for electronic components
- Quality testing machines
- Medical machines
- Mail opening and mail stuffing machines
- Check weighers
- Labeling machines
- Mole machines (camera control)

Pulse rates available at short notice:

10, 25, 36, **50**, 60, **100**, 125, 180, **200**, 250, **360**, **500**, 512, **1000**, **1024**, 1080

** Kübler encoder type 24xx meets German Railways standard

An independent test laboratory (TTI-P-G115/96-01) approved by the German Accreditation Council (DAR) certified the compliance with the railway standard, according to EN 50121.

We will gladly send you a copy of the test report on request. When ordering an encoder to the railway standard, please be sure to state this explicitly on the order.



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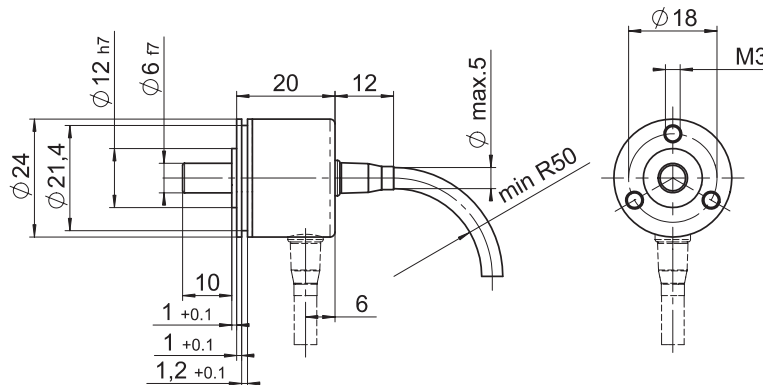
Terminal assignment

Signal:	0V	+U _B	A	\bar{A}	B	\bar{B}	0	$\bar{0}$	
Colour:	WH	BN	GN	YE	GY	PK	BU	RD	
without inverted signal:	WH	BN	GN		YE		GY		

Isolate unused outputs before initial start-up

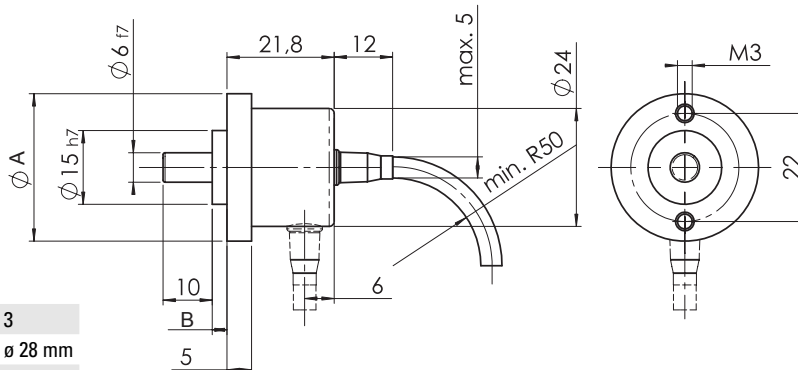
Dimensions:

Flange type 1 (Ø24 mm)



Flange type 2 (Ø 30 mm)

Flange type 3 (Ø 28 mm)



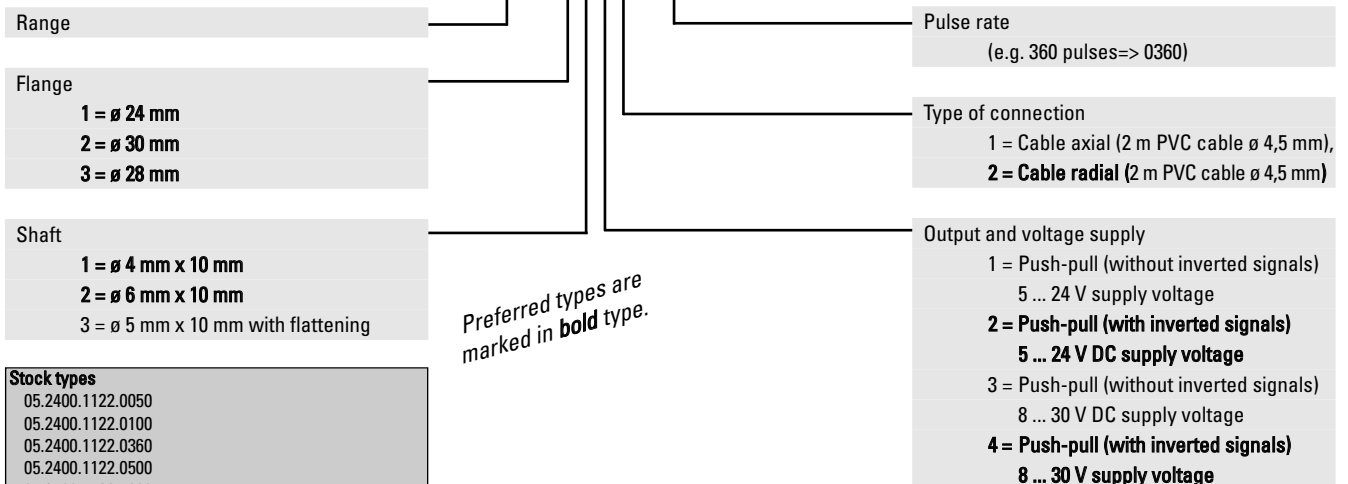
Flange type	2	3
A	Ø 30 mm	Ø 28 mm
B	3 mm	2 mm

Mounting advice:

Do not connect encoder and drive rigidly to one another at shafts and flanges! We recommend the use of suitable couplings (see chapter Accessories).

Order code:

05.2400.XXXX.XXXX



Stock types

05.2400.1122.0050
05.2400.1122.0100
05.2400.1122.0360
05.2400.1122.0500
05.2400.1122.1000
05.2400.1122.1024
05.2400.3321.1000
05.2400.3341.1000
05.2400.3331.0500
05.2400.3331.1000