

Rotary Measuring Technology

Incremental encoders



Compact Type 3610 (shaft) / 3620 (hollow shaft)



- Chromated housing resistant to cooling lubricants and other environmental influences
- Hollow shaft version: Fits directly onto drive shaft - no couplings needed - saves up to 30% on cost and 60% on installation space and time
- Universal application in mechanical engineering, vehicles, conveyors and elevators
- Wide temperature range (-30 ... +90 °C)
- Temperature and ageing compensation
- Low current consumption despite high scanning rate
- IP 65 from housing side
- Sturdy cable entry thanks to multiple clamping
- Highly flexible cable (withstands constant flexing at 0 °C ... 70 °C)
- Short circuit proof
- Broad input voltage range (5 ... 18 V or 8 ... 30 V)

Mechanical characteristics:

Speed:	Shaft version: max. 12000 min ⁻¹ Hollow shaft version: max. 6000 min ⁻¹
Rotor moment of inertia:	approx. 0.2 x 10 ⁻⁶ kgm ²
Starting torque:	< 0.05 Nm
Radial load capacity of the shaft:	40 N
Axial load capacity of the shaft:	20 N
Weight:	approx. 0.08 kg
Protection acc. to EN 60 529:	IP 65, housing side, IP64 shaft side on request
Working temperature:	-20° C ... +85 °C ²⁾
Materials:	Shaft: stainless steel; Hollow shaft: brass Housing: chromated Aluminium Cable: PVC
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

²⁾ Non-condensing

Electrical characteristics:

Output circuit:	Push-pull (7272) ¹⁾	Push-pull (7272) ¹⁾
Supply voltage:	5 ... 18 V DC	8 ... 30 V DC
Power consumption (no load) with inverted signal:	< 40 mA	< 40 mA
Permissible load/channel:	max. ±50 mA	max. ±50 mA
Pulse frequency:	max. 200 kHz	max. 200 kHz
Signal level high:	min. U _B - 2.5 V	min. U _B - 3 V
Signal level low:	max. 0.5 V	max. 0.5 V
Rise time tr	max. 1 µs	max. 1 µs
Fall time tf	max. 1 µs	max. 1 µs
Short circuit proof outputs ¹⁾ :	yes ²⁾	yes ²⁾
Reverse connection protection at U _B :	yes	yes
UL certified	File 224618	
Conforms to CE requirements acc. to EN 61000-6-1, EN 61000-6-4 and EN 61000-6-3		
RoHS compliant acc. to EU guideline 2002/95/EG		

¹⁾ Max. recommended cable length 30 m

²⁾ If supply voltage correctly applied

Terminal assignment:

Signal:	0 V	+U _B	A	\bar{A}	B	\bar{B}	0	$\bar{0}$	Shield
Colour:	WH	BN	GN	YE	GY	PK	BU	RD	

Isolate unused outputs before initial startup.

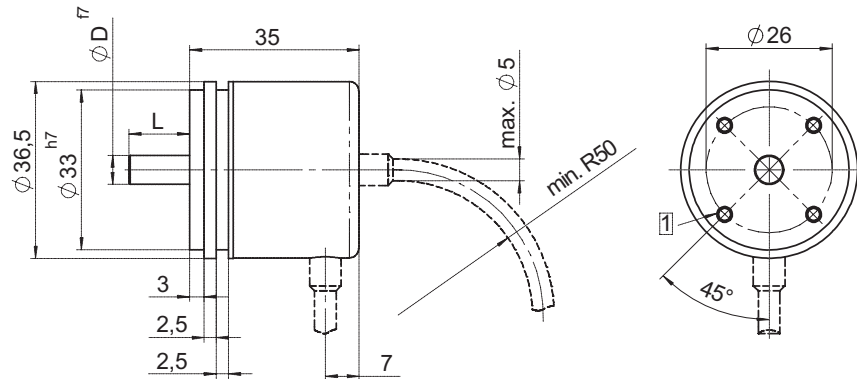
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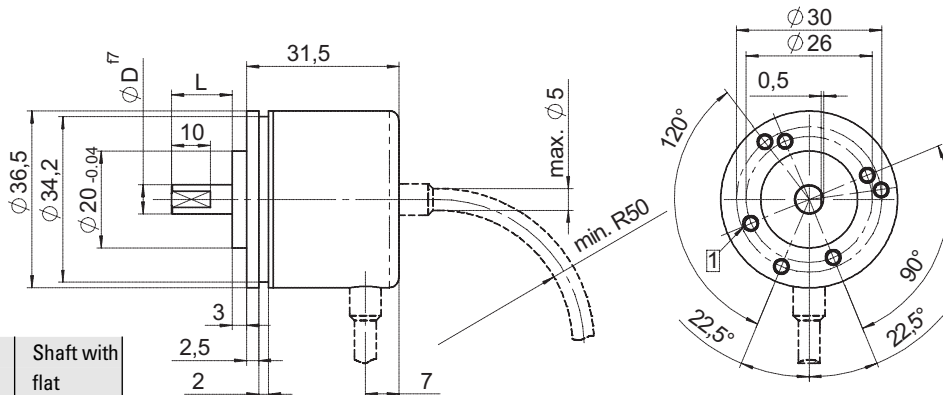


Compact Type 3610 (shaft) / 3620 (hollow shaft)

Dimensions shaft version:
Synchronous flange



Clamping flange



Order-Code Shaft	D	L	Shaft with flat
1	ø 4	10	no
2	ø 5	10	no
3	ø 6	12.5	yes
5	ø 1/4"	12.5	yes

Order code shaft version:

8.3610.XXXX.XXXX



Type series	
Flange	2 = Synchronous flange 3 = Clamping flange
Shaft	1 = ø 4 mm 2 = ø 5 mm 3 = ø 6 mm x 12.5 mm 5 = ø 1/4" x 12.5 mm

Pulse rate	25, 100, 200, 360, 500, 600, 1000, 1024, 1500, 2000, 2048, 2500 (e.g. 500 pulses => 0500) Other pulse rates available on request
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Type of connection	1 = cable axial (2 m PVC cable) 2 = cable radial (2 m PVC cable)
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Output and voltage supply	2 = Push-pull with inverted signals 5 ... 18 V DC Power supply 3 = Push-pull without inverted signals 8 ... 30 V DC Power supply 4 = Push-pull with inverted signals 8 ... 30 V DC Power supply 5 = RS422 with inverted signals 8 ... 30 V DC Power supply 6 = RS422 with inverted signals 5 V DC Power supply
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Preferred types are indicated in **bold**

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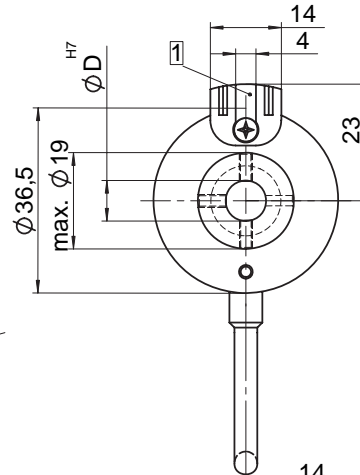
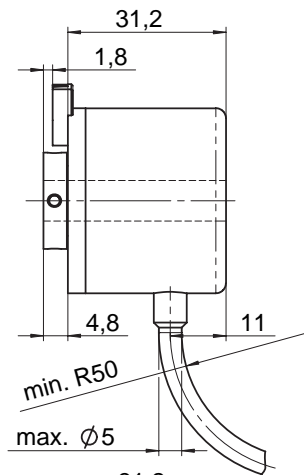
Incremental encoders



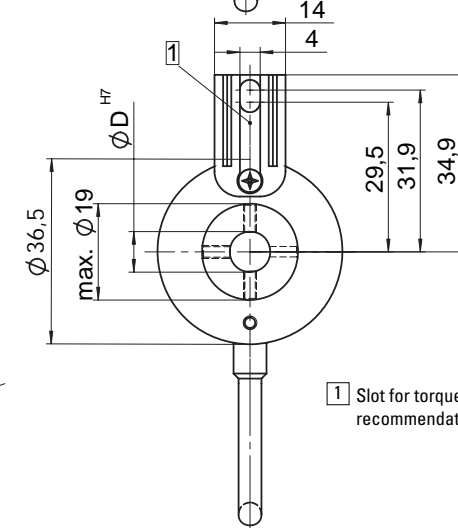
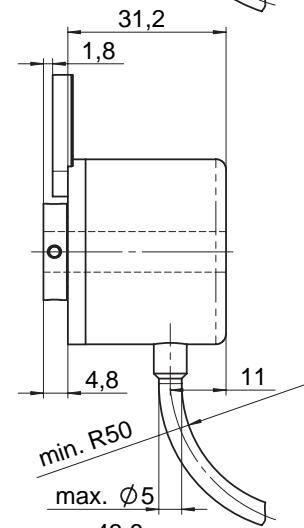
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Dimensions hollow shaft version:

Flange with torque stop short (1)

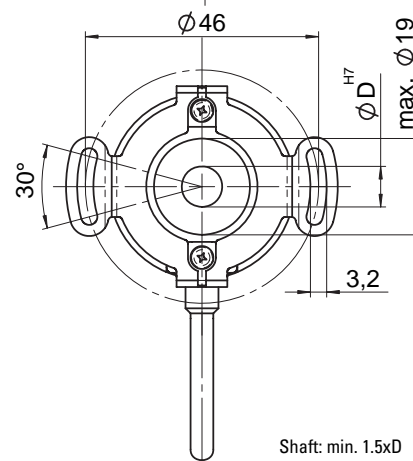
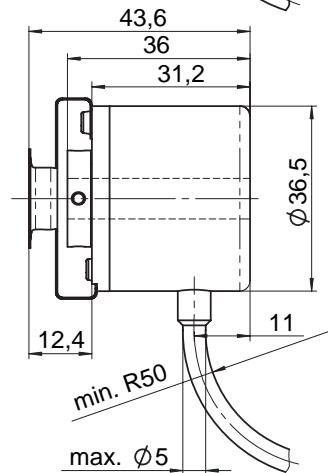


Flange with torque stop long (2)



1 Slot for torque stop, recommendation: Pin DIN 7 ø 4

Flange with stator coupling (5)



Shaft: min. 1.5xD

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Order code hollow shaft version:

8.3620.XXXX.XXXX



Type series

Flange

- 1 = Hollow shaft with short torque stop
- 2 = Hollow shaft with long torque stop**
- 5 = Hollow shaft with stator coupling

Hollow shaft

- 2 = ø 6 mm through hollow shaft**
- 3 = ø 6.35 mm (1/4" through hollow shaft)
- 4 = ø 8 mm through hollow shaft

Pulse rate

25, 100, 200, 360, 500, 600, 1000,
1024, 1500, 2000, 2048, 2500

(e.g. 500 pulses => 0500)

Other pulse rates available on request

Type of connection

E = Cable radial (2 m PVC cable)

Output circuit and voltage display

2 = Push-pull with inverted signal
Power supply 5 ... 18 V DC

3 = Push-pull without inverted signals
8 ... 30 V DC Power supply

**4 = Push-pull with inverted signal
Power supply 8 ... 30 V DC**

5 = RS422 with inverted signals
8 ... 30 V DC Power supply

6 = RS422 with inverted signals
5 V DC Power supply

*Preferred types are indicated in **bold***

Cyl. pin acc. to DIN 7,
ø 4 mm x 12 included in delivery

Accessories:

- Cables and connectors, also pre-assembled, can be found in the chapter Counting Technology
- Mounting attachments and couplings can be found in the Chapter Accessories