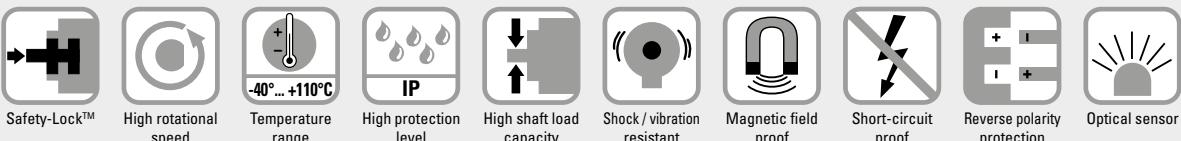


# Incremental encoders

Standard optical, programmable	Sendix K58I-PR (shaft / hollow shaft)	Push-pull / RS422
	 <p><b>Highest performance and flexibility.</b></p> <p>The new Sendix K58I Performance-Line encoder is particularly impressive due to the possibility of programming different parameters such as resolution, counting direction or zero pulse. The settings can be made before or after installation and enable a fast, direct response to changing or new requirements without having to replace the encoder with a new one.</p> <p>Other optimized features include a higher temperature range and a resolution of up to 36,000 pulses per revolution.</p>	
	 <p>  </p>	
		
<h2>Features and benefits</h2> <ul style="list-style-type: none"> <li><b>Encoders can be customized quickly and easily at any time</b> Individually configurable parameters: <ul style="list-style-type: none"> <li>- Pulse numbers up to 36,000 ppr</li> <li>- HTL or TTL output</li> <li>- Counting direction</li> <li>- Zero pulse settings (length, position, links)</li> </ul> </li> <li><b>High accuracy and reliability</b> State-of-the-art sensor technology with resolutions up to 36,000 ppr.</li> <li><b>Prepared for the toughest operating conditions and a wide range of external influences</b> <ul style="list-style-type: none"> <li>- Temperature range from -40 °C up to +110 °C</li> <li>- Protection class up to a maximum of IP67</li> <li>- Optimized EMC shielding concept</li> <li>- Advanced Safety Lock technology</li> </ul> </li> <li><b>Seamless integration into modern, digital networks</b> Prepared for use with digital type plate and digital twin for monitoring and maintaining machines and for a wide range of documentation tasks. Optimizing processes and increasing efficiency.</li> </ul>		

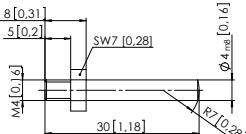
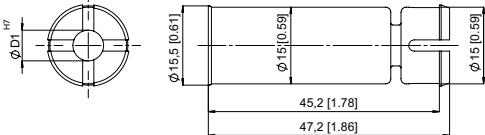
# Incremental encoders

Standard optical, programmable	Sendix K58I-PR (shaft / hollow shaft)	Push-pull / RS422
<b>Order code</b>	K58I . 0 P R XX . XXXXX . 2 XX XX XX . XX X X X . XXXX . XX	
<b>Shaft version</b>	Type a b c d e f g h i k l m	
<b>a</b> Interface		<b>g</b> Type of protection
PP = push-pull		65 = IP65
RS = RS422		6A = IP66/IP67
<b>b</b> Pulse rate (1 ... 36000 ppr)		<b>h</b> Position connection
XXXXX = 00001 ... 36000		A = axial
<b>c</b> Supply voltage		R = radial
2 = 5 ... 30 V DC		<b>i</b> Type of connection
<b>d</b> Version		1 = cable, PVC (open-ended or with connector on the housing)
S1 = Shaft, with flat (not in combination with shaft ø 11 mm <b>f</b> = 11)		2 = cable, TPE (only open-ended)
S3 = Shaft, with feather keyway and enclosed feather key (only in combination with shaft ø 11 mm <b>f</b> = 11)		3 = cable, PUR (only open-ended) – for variants with Ex 2/22
<b>e</b> Flange		C = connector on the housing
C5 = clamping flange		<b>k</b> Cable / connector type
S5 = synchro flange		1 = cable, open ended
Q5 = square flange, □ 63.5 mm [2.5"]		2 = M12 connector, 8-pin
E5 = Euro flange		3 = M12 connector, 5-pin
V5 = servo flange		4 = M23 connector, 12-pin
<b>f</b> Shaft (ø x L), with flat (only in combination with version <b>d</b> = S1)		<b>l</b> Cable length (in dm)
06 = ø 6 x 10 mm [0.24 x 0.39"]		0010 = 1 m [3.28']
08 = ø 8 x 15 mm [0.32 x 0.59"]		0020 = 2 m [6.56']
10 = ø 10 x 20 mm [0.39 x 0.79"]		0030 = 3 m [9.84']
12 = ø 12 x 20 mm [0.47 x 0.79"]		0050 = 5 m [13.12']
1A = ø 1/4 x 5/8" (6.35 x 15.875 mm)		0100 = 10 m [32.80']
1B = ø 1/4 x 7/8" (6.35 x 22.225 mm)		<b>m</b> Optional: special formats for output signals
2A = ø 3/8 x 5/8" (9.525 x 15.875 mm)		XX = see page 8
2B = ø 3/8 x 7/8" (9.525 x 22.225 mm)		<b>Optional on request</b>
<b>Shaft (ø x L), with feather keyway and enclosed feather key (only in combination with version <b>d</b> = S3)</b>		- Ex 2/22 only for variants with PUR cable or with connector on the housing / only for variants with type of protection IP66/IP67
11 = ø 11 x 33 mm [0.43 x 1.30"]		- Surface protection salt spray tested - Other cable lengths
<b>Stock types:</b> <b>K58I.0PRPP.01024.2S1C510.65RC2</b>		

## Incremental encoders

Standard optical, programmable	Sendix K58I-PR (shaft / hollow shaft)	Push-pull / RS422
<b>Order code</b>	<b>K58I .0 PR XX .XXXXXX .2 XX XX XX XX .XX XX XX XX .XXXX .XX</b>	
<b>Hollow shaft</b>	<b>Type</b>	<b>a b c d e f g h i k l m</b>
<b>a</b> Interface		<b>g</b> Type of protection
PP = push-pull		65 = IP65
RS = RS422		6A = IP66/IP67
<b>b</b> Pulse rate (1 ... 36000 ppr) XXXXX = 00001 ... 36000		<b>h</b> Position connection
<b>c</b> Supply voltage 2 = 5 ... 30 V DC		R = radial T = tangential – only for version <b>i</b> = H1 or H2 only with type of connection <b>i</b> = 1 (cable PVC) only with hollow shaft <b>i</b> ≤ 15 mm
<b>d</b> Version H1 = through hollow shaft, clamping on flange side H2 = through hollow shaft, clamping on flange side with pre-assembled Insulation / reduction insert (only for hollow shafts < ø 14 mm) C1 = through hollow shaft, clamping on the cover side C2 = through hollow shaft, clamping on the cover side with pre-assembled Insulation / reduction insert (only for hollow shafts < ø 14 mm)		<b>i</b> Type of connection 1 = cable, PVC (open-ended oder with connector on the housing) 2 = cable, TPE (only open-ended) 3 = cable, PUR (only open-ended) – for variants with Ex 2/22 C = connector on the housing
<b>e</b> Mounting type 15 = spring element, long R 35.5 ... 37.9 mm [1.40 ... 1.49"] 25 = stator coupling ø 63 mm [2.48"] 35 = stator coupling ø 65 mm [2.56"] 45 = torque stop R 40 ... 75 mm [1.57 ... 2.95"]		<b>k</b> Cable / connector type 1 = cable, open-ended 2 = M12 connector, 8-pin 3 = M12 connector, 5-pin 4 = M23 connector, 12-pin
<b>f</b> Through hollow shaft 06 = ø 6 mm [0.24"] 08 = ø 8 mm [0.32"] 10 = ø 10 mm [0.39"] 12 = ø 12 mm [0.47"] 14 = ø 14 mm [0.55"] 15 = ø 15 mm [0.59"] 1A = ø 1/4" (6.35 mm) 2A = ø 3/8" (9.525 mm) 3A = ø 1/2" (12.7 mm)		<b>l</b> Cable length (in dm) 0010 = 1 m [3.28'] 0020 = 2 m [6.56'] 0030 = 3 m [9.84'] 0050 = 5 m [13.12'] 0100 = 10 m [32.80']
		<b>m</b> Optional: special formats for output signals XX = see page 8
		<b>Optional on request</b> - Ex 2/22 only for variants with PUR cable or with connector on the housing only for variants with type of protection IP66/IP67 - Surface protection salt spray tested - Other cable lengths
		<b>Stock types:</b> <b>K58I.0PRPP.01024.2H12515.65RC2</b>

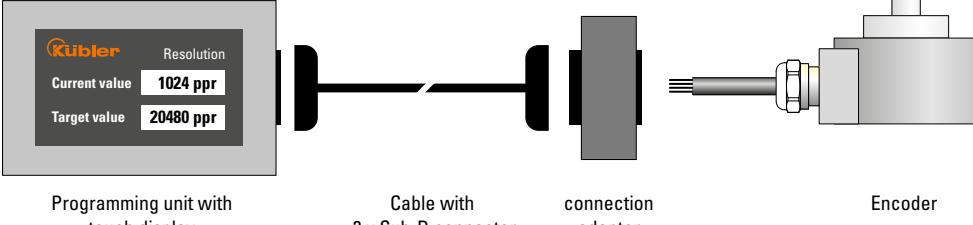
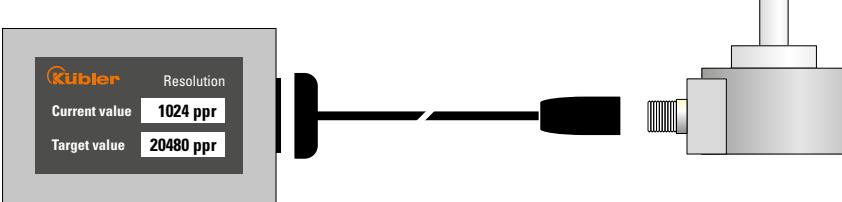
# Incremental encoders

Standard optical, programmable	Sendix K58I-PR (shaft / hollow shaft)	Push-pull / RS422
<b>Mounting accessory for shaft encoders</b>		Order no.
<b>Coupling</b>	bellows coupling ø 19 mm [0.75"] for shaft 6 mm [0.24"] bellows coupling ø 19 mm [0.75"] for shaft 10 mm [0.39"]	<b>8.0000.1102.0606</b> <b>8.0000.1102.1010</b>
<b>Mounting accessory for hollow shaft encoders</b>	Dimensions in mm [inch]	Order no.
<b>Torque pin, ø 4 mm</b> for flange with spring element (mounting type <b>E</b> = 15 and 75)	with fixing thread	<b>8.0010.4700.0000</b>
		
<b>Insulation / reduction insert for hollow shaft encoders with ø 15 mm</b> <b>I = 15</b>	<b>Thermal and electrical isolation of the encoders</b> (Temperature range -40 °C ... +115 °C [-40 °F ... +239 °F]) Insulation inserts prevent currents from passing through the encoder bearings. These currents can occur when using inverter controlled three-phase or AC vector motors and considerably shorten the service life of the encoder bearings. In addition the encoder is thermally isolated as the plastic does not transfer the heat to the encoder. 	D1 6 mm 8 mm 10 mm 12 mm 1/4" (6.35 mm) 3/8" (9.525 mm) 1/2" (12.7 mm) Insulation insert <b>8.0010.4021.0000</b> <b>8.0010.4020.0000</b> <b>8.0010.4023.0000</b> <b>8.0010.4025.0000</b> <b>8.0010.4022.0000</b> <b>8.0010.4024.0000</b> <b>8.0010.4026.0000</b>
	Also available pre-assembled as version <b>I = H2 or C2</b>	
<b>Cables and connectors</b>		Order no.
<b>Preassembled cables</b>	M23 female connector with coupling nut, 12-pin.cw single ended 2 m TPE Kabel  M12 female connector with coupling nut, 5-pin, A coded, straight single ended 2 m [6.56'] PVC cable (only suitable up to max. +85°C)  M12 female connector with coupling nut, 8-pin.A coded, straight single ended 2 m [6.56'] PVC cable (only suitable up to max. +85°C)	<b>8.0000.6E01.0002</b>  <b>05.00.6081.2211.002M</b>  <b>05.00.6041.8211.002M</b>
<b>Connectors</b>	M12 female connector with coupling nut, 5-pin, A coded, straight (plastic)  M12 female connector with coupling nut, 8-pin.A coded, straight (metal)  M23 female connector with coupling nut, 12-pin.cw	<b>05.B-8151-0/9</b>  <b>05.CMB 8181-0</b>  <b>8.0000.5012.0000</b>

Further Kübler accessories can be found at: [kuebler.com/accessories](http://kuebler.com/accessories)

Further Kübler cables and connectors can be found at: [kuebler.com/connection-technology](http://kuebler.com/connection-technology)

# Incremental encoders

Standard optical, programmable	Sendix K58I-PR (shaft / hollow shaft)	Push-pull / RS422
<b>Programming unit</b>		Order no.
<b>Programming unit with touch display</b> EP1000	<p>Programming device for PC-independent use, even in the field</p> <p>Dimensions 136 x 84 x 38 mm</p> <p>Connection Sub-D female connector</p> <p>Scope of delivery Programming unit, plug-in power supply unit</p>	<b>8.0010.9000.1000</b> <sup>1)</sup>
		
<b>Accessories for programming - for encoders with cable connection</b>		Order no.
		
Programming unit with touch display	Cable with connection adapter	Encoder
<b>Connection cable</b>	For connecting programming unit with the connection adapter Sub-D male connector, 15-pin Sub-D female connector, 15-pin 2 m [6.56'] PVC cable	<b>05.00.60J1.L7L8.002M</b>
<b>Connection adapter</b>	For connecting the encoder Sub-D male connector, 15-pin Spring terminal, 3-pin	<b>8.0010.9000.0100</b>
<b>Accessories for programming - for encoders with connector</b>		Order no.
		
Programming unit with touch display	Cable with Sub-D connector + M12/M23 connector	Encoder
<b>Connection cable</b>	<p><b>For encoders with M12 connector, 8-pin</b> Sub-D male connector, 15-pin M12 female connector with coupling nut, 8-pin, A coded, straight 2 m [6.56'] PVC cable</p> <p><b>For encoders with M12 connector, 5-pin</b> Sub-D male connector, 15-pin M12 female connector with coupling nut, 5-pin, A coded, straight 2 m [6.56'] PVC cable</p> <p><b>For encoders with M23 connector, 12-pin</b> Sub-D male connector, 15-pin M23 female connector with coupling nut, 12-pin, straight 2 m [6.56'] PVC cable</p>	<b>8.0000.6000.0002.0112</b> <sup>1)</sup> <b>8.0000.6000.0002.0113</b> <b>8.0000.6000.0002.0114</b>

1) Stock types

# Incremental encoders

Standard optical, programmable	Sendix K58I-PR (shaft / hollow shaft)	Push-pull / RS422
<b>Technical data</b>		
<b>Mechanical characteristics</b>		
<b>Maximum speed</b>	IP65 12000 min <sup>-1</sup> IP66/IP67 6000 min <sup>-1</sup> (continuous) variants with Ex 2/22 (IP66/IP67) 3000 min <sup>-1</sup> (continuous) 3000 min <sup>-1</sup>	
<b>Mass moment of inertia</b>	shaft approx. 4.0 ... 4.3 x 10 <sup>-6</sup> kgm <sup>2</sup> (depending on shaft version) hollow shaft approx. 4.3 ... 5.8 x 10 <sup>-6</sup> kgm <sup>2</sup> (depending on hollow shaft version)	
<b>Starting torque at 20 °C [68 °F]</b>	IP65 < 0.01 Nm with IP65 IP66/IP67 < 0.02 Nm with IP66/IP67	
<b>Shaft load capacity</b>	radial 100 N axial 50 N	
<b>Weight</b>	approx. 0.4 kg [14.11 oz]	
<b>Protection acc. to EN 60529</b>	without shaft seal IP65 with shaft seal IP66/IP67	
<b>Material</b>	shaft stainless steel	
<b>Shock resistance acc. to EN 60068-2-27</b>	3000 m/s <sup>2</sup> , 6 ms	
<b>Vibration resistance acc. to EN 60068-2-6</b>	5 ... 8.7 Hz ±0.35 mm 8.7 ... 200 Hz 30 m/s <sup>2</sup> 200 ... 2000 Hz 300 m/s <sup>2</sup>	
<b>Electrical characteristics</b>		
<b>Output circuit</b>	<b>RS422</b> (TTL compatible)	<b>Push-pull</b> (HTL/TTL universal)
	Order code ① <b>RS</b>	<b>PP</b>
<b>Supply voltage</b>	5 ... 30 V DC	5 ... 30 V DC
<b>Power consumption (no load)</b>	typ. 40 mA / max. 90 mA	typ. 40 mA / max. 90 mA
<b>Permissible load / channel</b>	max. +/- 20 mA	max. +/- 20 mA
<b>Pulse frequency</b>	max. 300 kHz	max. 300 kHz <sup>1)</sup>
<b>Signal level</b>	HIGH min. 2.5 V LOW max. 0.5 V	min. 2.5 V max. 0.5 V
<b>Rising edge time t<sub>r</sub></b>	max. 200 ns	max. 200 ns
<b>Falling edge time t<sub>f</sub></b>	max. 200 ns	max. 200 ns
<b>Short circuit proof outputs<sup>2)</sup></b>	yes <sup>3)</sup>	yes <sup>3)</sup>
<b>Reverse polarity protection of the supply voltage</b>	yes	yes

1) Max. recommended cable length 30 m [98.43'].

2) If supply voltage correctly applied.

3) Only one channel allowed to be shorted-out:

at +V= 5 V DC, short-circuit to channel, 0 V, or +V is permitted.  
at +V= 5 ... 30 V DC, short-circuit to channel or 0 V is permitted.

# Incremental encoders

Standard optical, programmable	Sendix K58I-PR (shaft / hollow shaft)	Push-pull / RS422
-----------------------------------	---------------------------------------	-------------------

## Terminal assignment

Interface	Cable / connector type	Cable (isolate unused cores individually before initial start-up)										
PP, RS	1	Signal:	0 V	+V	0 Vsens	+Vsens	A	$\bar{A}$	B	$\bar{B}$	0	$\bar{0}$
		Core color:	WH	BN	QY/PK	RD/BU	GN	YE	GY	PK	BU	RD
Interface	Cable / connector type	M12 connector, 5-pin										
PP, RS	3	Signal:	0 V	+V	A	B	0	$\bar{0}$				
		Pin:	1	2	3	4	5	PH				
Interface	Cable / connector type	M12 connector, 8-pin										
PP, RS	2	Signal:	0 V	+V	A	$\bar{A}$	B	$\bar{B}$	0	$\bar{0}$	$\bar{0}$	
		Pin:	1	2	3	4	5	6	7	8	PH	
Interface	Cable / connector type	M23 connector, 12-pin										
PP, RS	4	Signal:	0 V	+V	0 Vsens	+Vsens	A	$\bar{A}$	B	$\bar{B}$	0	$\bar{0}$
		Pin:	10	12	11	2	5	6	8	1	3	4
PH $\bar{0}$ :												PH

+V : Supply voltage encoder +V DC

0 V : Supply voltage encoder ground GND (0 V)

0 Vsens / +Vsens : Using the sensor outputs of the encoder, the voltage present can be measured and if necessary increased accordingly..

A,  $\bar{A}$  : Incremental output channel A

B,  $\bar{B}$  : Incremental output channel B

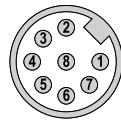
0,  $\bar{0}$  : Reference signal

PH  $\bar{0}$  : Shield is connected to the connector housing

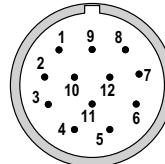
## Top view of mating side, male contact base



M12 connector, 5-pin

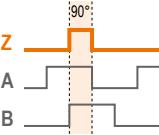
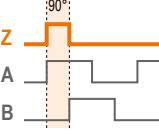
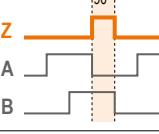
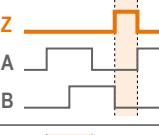
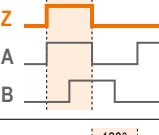
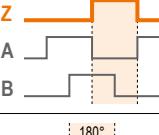
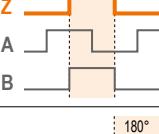
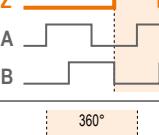
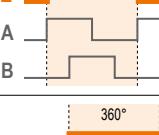
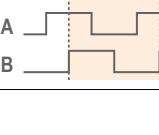
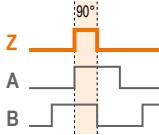
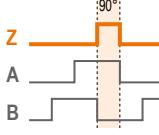
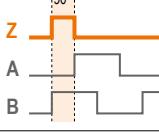
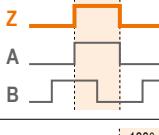
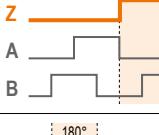
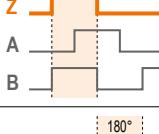
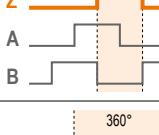
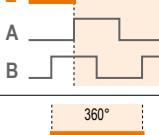
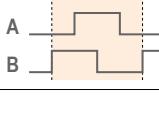


M12 connector, 8-pin



M23 connector, 12-pin

# Incremental encoders

Standard optical, programmable		Sendix K58I-PR (shaft / hollow shaft)	Push-pull / RS422
<b>Special formats for output signals</b>			
<b>A leading B</b>			
		when the shaft is rotated clockwise with the flange side facing you.	
Order code 			
<b>Standard</b> No specification in the order code	Z at A / B = 1 / 1 Z is 90° wide		
<b>A1</b>	Z at A / B = 1 / 0 Z is 90° wide		
<b>A2</b>	Z at A / B = 0 / 1 Z is 90° wide		
<b>A3</b>	Z at A / B = 0 / 0 Z is 90° wide		
<b>A4</b>	Z at A = 1 Z is 180° wide		
<b>A5</b>	Z at A = 0 Z is 180° wide		
<b>A6</b>	Z at B = 1 Z is 180° wide		
<b>A7</b>	Z at B = 0 Z is 180° wide		
<b>A8</b>	Z at A Z is 360° wide		
<b>A9</b>	Z at B Z is 360° wide		
<b>B leading A</b>			
		when the shaft is rotated clockwise with the flange side facing you.	
Order code 			
<b>B0</b>	Z at A / B = 1 / 1 Z is 90° wide		
<b>B1</b>	Z at A / B = 1 / 0 Z is 90° wide		
<b>B2</b>	Z at A / B = 0 / 1 Z is 90° wide		
<b>B3</b>	Z at A / B = 0 / 0 Z is 90° wide		
<b>B4</b>	Z at A = 1 Z is 180° wide		
<b>B5</b>	Z at A = 0 Z is 180° wide		
<b>B6</b>	Z at B = 1 Z is 180° wide		
<b>B7</b>	Z at B = 0 Z is 180° wide		
<b>B8</b>	Z at A Z is 360° wide		
<b>B9</b>	Z at B Z is 360° wide		

# Incremental encoders

## Standard optical, programmable

## **Sendix K58I-PR (shaft / hollow shaft)**

## Push-pull / RS422

## Dimensions shaft version

Dimensions in mm [inch]

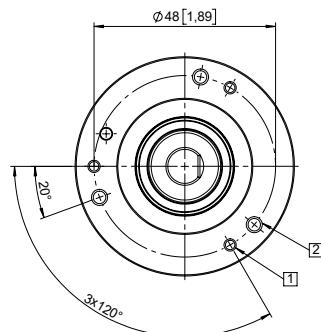
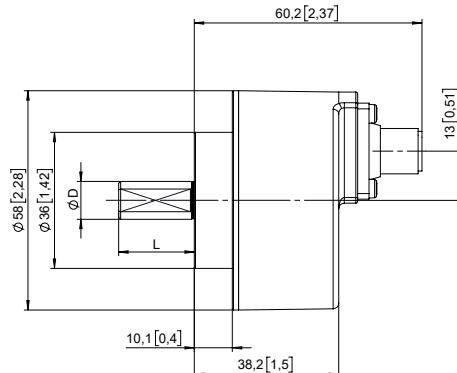
### Clamping flange, ø 58 [2.28]

flange type e = C5

position connection **h** = A  
type of connection **i** = C  
connector type **k** = 2 or 3

3 x M3, 6 [0.24] deep

2 3 x M4, 6 [0.24] deep



D	Fit	L
6 [0.24]	f7	10 [0.39]
8 [0.32]	f7	15 [0.59]
10 [0.39]	f7	20 [0.79]
12 [0.47]	f7	20 [0.79]
1/4"	f7	5/8"
3/8"	f7	5/8"
1/4"	f7	7/8"
3/8"	f7	7/8"

## Servo flange, ø 58 [2.28]

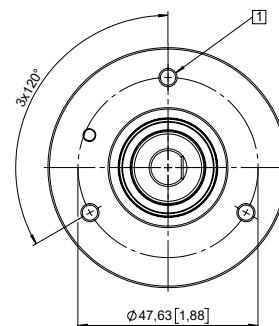
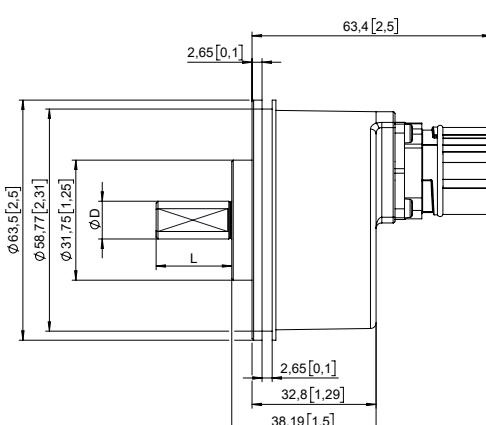
flange type e = V5

Connection, axial  
Connector on the housing  
M23 connector, 12-pin

position connection **h** = A  
type of connection **i** = C  
connector type **k** = 4

1 3 x M3, 6 [0.24] deep

2 3 x M4, 6 [0.24] deep



D	Fit	L
6 [0.24]	f7	10 [0.39]
8 [0.32]	f7	15 [0.59]
10 [0.39]	f7	20 [0.79]
12 [0.47]	f7	20 [0.79]
1/4"	f7	5/8"
3/8"	f7	5/8"
1/4"	f7	7/8"
3/8"	f7	7/8"

# Incremental encoders

## Standard optical, programmable

## Sendix K58I-PR (shaft / hollow shaft)

## Push-pull / RS422

### Dimensions hollow shaft version

Dimensions in mm [inch]

#### Spring element, long

R 35.5 ... 37.9 [1.40 ... 1.49]

Connection, radial

Connector on the housing

M12 connector, 5- or 8-pin

mounting type  $\Theta = 15$

position connection  $\bullet = R$

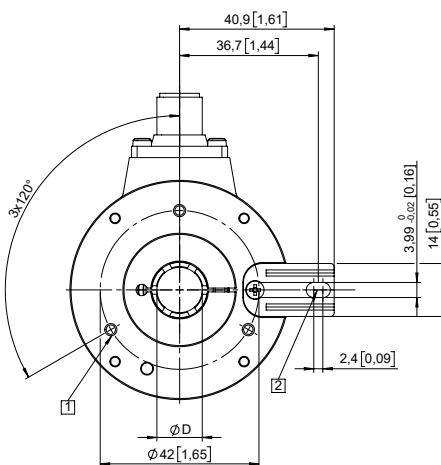
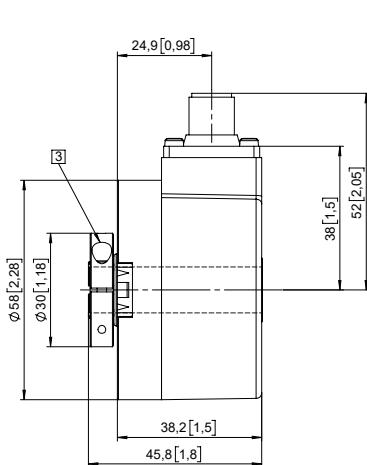
type of connection  $\circ = C$

connector type  $\square = 2$  or  $3$

[1] 3 x M3, 6 [0.24] deep

[2] Slot spring element,  
recommendation:  
torque pin DIN 7,  $\varnothing 4$  [0.16]

[3] Recommended torque for the  
clamping ring 0.6 Nm



D	Fit
6 [0.24]	H7
8 [0.32]	H7
10 [0.39]	H7
12 [0.47]	H7
14 [0.55]	H7
15 [0.59]	H7
1/4"	H7
3/8"	H7
1/2"	H7

Recommended fit for shaft on customer side is g6.

#### Spring element, long

R 35.5 ... 37.9 [1.40 ... 1.49]

Connection, tangential

Cable connection

Open-ended cable

mounting type  $\Theta = 15$

position connection  $\bullet = T$

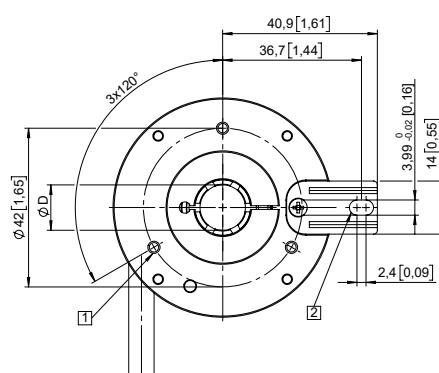
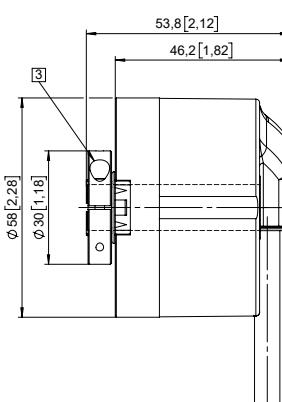
type of connection  $\circ = 1$

connector type  $\square = 1$

[1] 3 x M3, 6 [0.24] deep

[2] Slot spring element,  
recommendation:  
torque pin DIN 7,  $\varnothing 4$  [0.16]

[3] Recommended torque for the  
clamping ring 0.6 Nm



D	Fit
6 [0.24]	H7
8 [0.32]	H7
10 [0.39]	H7
12 [0.47]	H7
14 [0.55]	H7
15 [0.59]	H7
1/4"	H7
3/8"	H7
1/2"	H7

Recommended fit for shaft on customer side is g6.

# Incremental encoders

## Standard optical, programmable

## Sendix K58I-PR (shaft / hollow shaft)

## Push-pull / RS422

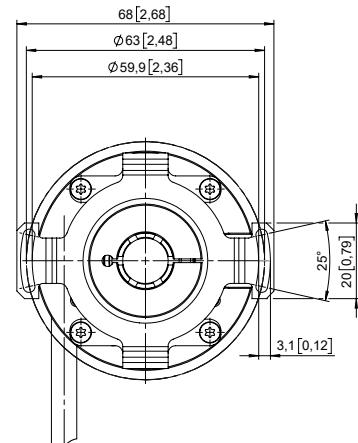
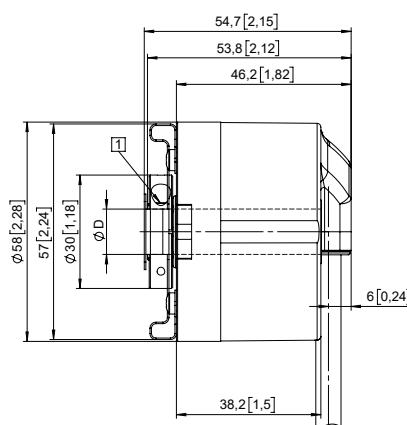
### Dimensions hollow shaft version

Dimensions in mm [inch]

**Stator coupling  $\varnothing 63$  [2.48]** mounting type  $\Theta = 25$

Connection, tangential position connection  $\Theta = T$   
Cable connection type of connection  $\Theta = 1$   
Open-ended cable connector type  $\Theta = 1$

**[1]** Recommended torque for the  
clamping ring 0.6 Nm



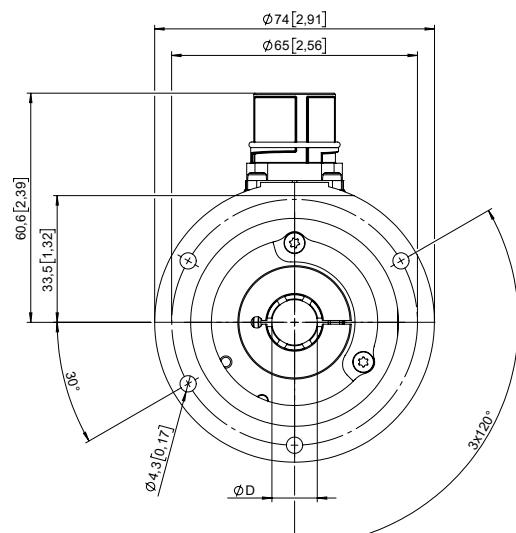
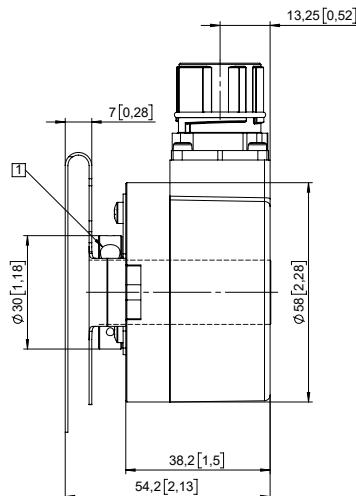
D	Fit
6 [0.24]	H7
8 [0.32]	H7
10 [0.39]	H7
12 [0.47]	H7
14 [0.55]	H7
15 [0.59]	H7
1/4"	H7
3/8"	H7
1/2"	H7

Recommended fit for shaft on customer side is g6.

**Stator coupling,  $\varnothing 65$  [2.56]** mounting type  $\Theta = 35$

Connection, radial position connection  $\Theta = R$   
Connector on the housing type of connection  $\Theta = C$   
M23 connector, 12-pin connector type  $\Theta = 4$

**[1]** Recommended torque for the  
clamping ring 0.6 Nm



D	Fit
6 [0.24]	H7
8 [0.32]	H7
10 [0.39]	H7
12 [0.47]	H7
14 [0.55]	H7
15 [0.59]	H7
1/4"	H7
3/8"	H7
1/2"	H7

Recommended fit for shaft on customer side is g6.