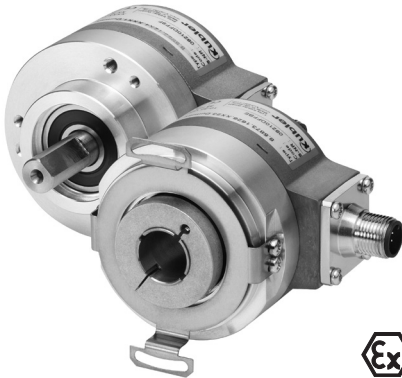


Incremental encoders

Standard
sine wave output, highly interpolable, optical

Sendix 5814 / 5834 (shaft / hollow shaft)

SinCos



The incremental encoders Sendix 5814 and 5834 with SinCos interface are particularly suited for applications in the field of drive technology.

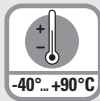
Thanks to their high signal quality, they are optimally suited for further interpolation.



Safety-Lock™



High rotational speed



Temperature range



High protection level



High shaft load capacity



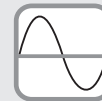
Shock / vibration resistant



Magnetic field proof



Reverse polarity protection



SinCos



Optical sensor



Surface protection salt spray-tested optional

Powerful

- With incremental SinCos tracks.
- Very high signal quality.
- Suited for motor feedback applications.

Flexible

- Shaft and hollow shaft versions.
- Cable and connector variants.
- Various mounting options available.

Order code
Shaft version

8.5814
Type

. 1 2 X X . XXXX
a b c d e

a Flange

1 = clamping flange, IP65, ø 58 mm [2.28"]

b Shaft (ø x L)

2 = 10 x 20 mm [0.39 x 0.79"], with flat

c Output circuit / power supply

1 = SinCos / 5 V DC
2 = SinCos / 10 ... 30 V DC

d Type of connection

1 = axial cable, 1 m [3.28"] PVC
A = axial cable, special length PVC *)
2 = radial cable, 1 m [3.28"] PVC
B = radial cable, special length PVC *)
5 = axial M12 connector, 8-pin
6 = radial M12 connector, 8-pin

*) Available special lengths (connection types A, B):
2, 3, 5, 8, 10, 15 m [6.56, 9.84, 16.40, 26.25, 32.80, 49.21']
order code expansion .XXXX = length in dm
ex.: 8.5814.122A.2048.0030 (for cable length 3 m)

e Pulse rate

1024, 2048

Optional on request

- Ex 2/22 ¹⁾

- surface protection salt spray tested

Order code
Hollow shaft

8.5834
Type

. X X X X . XXXX
a b c d e

a Flange

1 = with spring element, long, IP65
5 = with stator coupling, IP65, ø 63 mm [2.48"]

b Through hollow shaft

3 = ø 10 mm [0.39"]
4 = ø 12 mm [0.47"]
5 = ø 14 mm [0.55"]
6 = ø 15 mm [0.59"]
8 = ø 3/8"
9 = ø 1/2"

Tapered shaft
K = ø 10 mm [0.39"]

c Output circuit / power supply

1 = SinCos / 5 V DC
2 = SinCos / 10 ... 30 V DC

d Type of connection

2 = radial cable, 1 m [3.28"] PVC
B = radial cable, special length PVC *)
E = tangential cable, 1 m [3.28"] PVC
F = tangential cable, special length PVC *)
6 = radial M12 connector, 8-pin

*) Available special lengths (connection types B, F):
2, 3, 5, 8, 10, 15 m [6.56, 9.84, 16.40, 26.25, 32.80, 49.21']
order code expansion .XXXX = length in dm
ex.: 8.5834.142B.2048.0030 (for cable length 3 m)

e Pulse rate

1024, 2048

Optional on request

- Ex 2/22

(not for type of connection E, F) ¹⁾

- surface protection salt spray tested

1) For the cable connection type, cable material PUR.

Incremental encoders

Standard sine wave output, highly interpolable, optical		Sendix 5814 / 5834 (shaft / hollow shaft)	SinCos
Connection technology			Order no.
Cordset, pre-assembled		M12 female connector with coupling nut, 8-pin 2 m [6.56'] PVC cable	05.00.6041.8211.002M
Connector, self-assembly (straight)		M12 female connector with coupling nut, 8-pin	05.CMB 8181-0

Further accessories can be found in the accessories section or in the accessories area of our website at: www.kuebler.com/accessories.
Additional connectors can be found in the connection technology section or in the connection technology area of our website at: www.kuebler.com/connection_technology.

Technical data		
Mechanical characteristics		
Maximum speed	IP65	12000 min ⁻¹ , 5000 min ⁻¹ (continuous)
	IP67	8000 min ⁻¹ , 2000 min ⁻¹ (continuous)
Starting torque – at 20°C [68°F]	IP65	< 0.01 Nm
	IP67	< 0.05 Nm
Mass moment of inertia	shaft	4.0 x 10 ⁻⁶ kgm ²
	hollow shaft	7.0 x 10 ⁻⁶ kgm ²
Load capacity of shaft	radial	80 N
	axial	40 N
Weight	approx. 0.45 kg [15.85 oz]	
Protection acc. to EN 60529	IP65	
Working temperature range	-40°C ... +90°C [-40°F ... +194°F] ¹⁾	
Materials	shaft / hollow shaft	stainless steel
	flange	aluminum
	housing	zinc die-cast
	cable	PVC (PUR for Ex 2/22)
Shock resistance acc. to EN 60068-2-27	2500 m/s ² , 6 ms	
Vibration resistance acc. to EN 60068-2-6	100 m/s ² , 55 ... 2000 Hz	

Electrical characteristics		
Power supply	5 V DC (±5 %) or 10 ... 30 V DC	
Current consumption (no load)	5 V DC	max. 70 mA
	10 ... 30 V DC	max. 45 mA
Reverse polarity protection of the power supply	yes	
UL approval	file 224618	
CE compliant acc. to	EMC guideline 2014/30/EU	
	RoHS guideline 2011/65/EU	

SinCos interface		
Max. frequency -3dB	400 kHz	
Signal level	1 Vpp (±10 %)	
Short circuit proof	yes ²⁾	
Pulse rate	1024 / 2048 ppr	

Terminal assignment

Output circuit	Type of connection	Cable (isolate unused cores individually before initial start-up)							
1, 2	1, 2, A, B, E, F	Signal:	0 V	+V	A	$\bar{A}$	B	$\bar{B}$	$\perp$
		Core color:	WH	BN	GN	YE	GY	PK	shield
Output circuit	Type of connection	M12 connector, 8-pin							
1, 2	5, 6	Signal:	0 V	+V	A	$\bar{A}$	B	$\bar{B}$	$\perp$
		Pin:	1	2	3	4	5	6	PH ³⁾

+V: Encoder power supply +V DC
0 V: Encoder power supply ground GND (0 V)
A, $\bar{A}$: Cosine signal
B, $\bar{B}$: Sine signal
PH $\perp$: Plug connector housing (shield)

Top view of mating side, male contact base



M12 connector, 8-pin

1) Cable version: -30°C ... +90°C [-22°F ... +194°F] fixed installation.
2) Short circuit to 0V or to output, one channel at a time, power supply correctly applied.
3) PH = shield is attached to connector housing.

Incremental encoders

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Dimensions shaft version

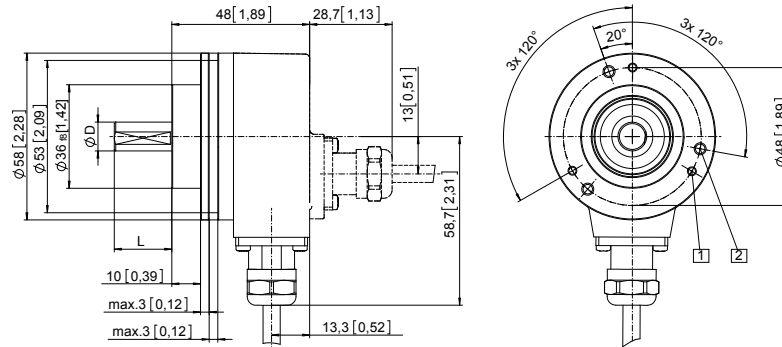
Dimensions in mm [inch]

Clamping flange, ø 58 [2.28]

Flange type 1 with shaft type 2

(drawing with cable)

- 1 3 x M3, 6 [0.24] deep
- 2 3 x M4, 8 [0.32] deep



D	Fit	L
10 [0.39]	f7	20 [0.79]

Dimensions hollow shaft version

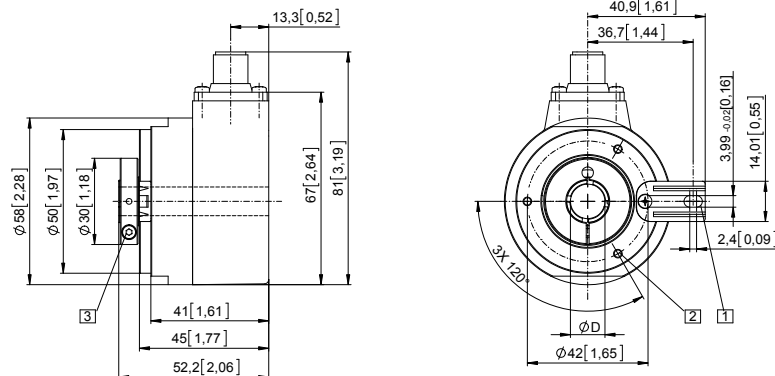
Dimensions in mm [inch]

Flange with spring element, long

Flange type 1

(drawing with M12 connector)

- 1 Slot spring element, recommendation: cylindrical pin DIN 7, ø 4 [0.16]
- 2 3 x M3, 5.5 [0.22] deep
- 3 Recommended torque for the clamping ring 0.6 Nm



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

Incremental encoders

Standard
sine wave output, highly interpolable, optical

Sendix 5814 / 5834 (shaft / hollow shaft)

SinCos

Dimensions hollow shaft version

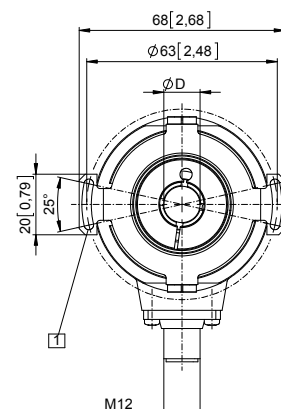
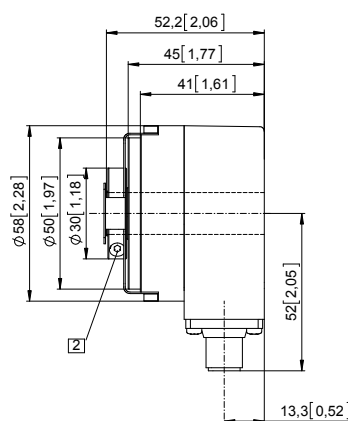
Dimensions in mm [inch]

**Flange with stator coupling, ø 63 [2.48]
and hollow shaft**

Flange type 5

(drawing with M12 connector)

- 1 For (4x) M3 screw
- 2 Recommended torque for the clamping ring 0.6 Nm



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

**Flange with stator coupling, ø 63 [2.48]
and tapered shaft**

Flange type 5

(drawing with tangential cable outlet)

- 1 For (4x) M3 screw
- 2 SW 4

