

## KUEBLER - ABSOLUTE-CODED ANGULAR TRANSMITTER SENDIX 5863/5883, OPTICAL, SSI, Ø58 MM SERIE 5883

- Housing diameter Ø58 mm
- SSI / BiSS
- Safety-Lock™
- High enclosure class



### PRODUCT DESCRIPTION

Sendix 5863/5883 is a multivariate sensor with SSI / BiSS interface in robust design. Thanks to the construction of Safety-Lock™ as well as the fully cast housing, the sensor is able to handle even the more demanding applications where there are high demands on the sensor. The wide temperature range combined with the high enclosure class allows the sensor to be used outdoors as well as applications where large temperature changes occur. Sendix 5863/5883 has LED indication which facilitates diagnosis of the sensor and a set button that facilitates calibration.

Please refer to the images below for ordering information.

Order code

8.5863

.XXXXX

.XX2X

Shaft version

Type

a

Flange

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

3 = clamping flange, IP67 ø 58 mm [2.28"]

2 = synchro flange, IP65 ø 58 mm [2.28"]

4 = synchro flange, IP67 ø 58 mm [2.28"]

5 = square flange, IP65 □ 63.5 mm [2.5"]

7 = square flange, IP67 □ 63.5 mm [2.5"]

6 = servo flange, IP65 ø 63.5 mm [2.5"] <sup>1)</sup>

8 = servo flange, IP67 ø 63.5 mm [2.5"] <sup>1)</sup>

b

Shaft (ø x L), with flat

1 = 6 x 10 mm [0.24 x 0.39"] <sup>2)</sup>

2 = 10 x 20 mm [0.39 x 0.79"] <sup>3)</sup>

3 = 1/4" x 7/8"

4 = 3/8" x 7/8"

c

Interface / power supply

1 = SSI, BiSS / 5 V DC

2 = SSI, BiSS / 10 ... 30 V DC

3 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC

4 = SSI, BiSS + 2048 ppr. SinCos / 10 ... 30 V DC

5 = SSI, BiSS / 5 V DC, with sensor output

6 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC, with sensor output

7 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC

8 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 10 ... 30 V DC

9 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC, with sensor output

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 \*)

3 = axial M23 connector, 12-pin

4 = radial M23 connector, 12-pin

5 = axial M12 connector, 8-pin <sup>4)</sup>

6 = radial M12 connector, 8-pin <sup>4)</sup>

\*) Available special lengths (connection types A, B):

2, 3, 5, 8, 10, 15 m [5.56, 9.84, 16.40, 26.25, 32.80, 49.21']

order code expansion .XXXX = length in dm

ex.: 8.5863.112A.G323.0030 (for cable length 3 m)

e

Code

B = SSI, binary

C = BiSS, binary

G = SSI, gray

f

Resolution <sup>5)</sup>

A = 10 bit ST + 12 bit MT

1 = 11 bit ST + 12 bit MT

2 = 12 bit ST + 12 bit MT

3 = 13 bit ST + 12 bit MT

4 = 14 bit ST + 12 bit MT

7 = 17 bit ST + 12 bit MT

g

Inputs / outputs <sup>5)</sup>

2 = SET, DIR input

additional status output

h

Options (service)

1 = no option

2 = status LED

3 = SET button and status LED

Optional on request

- Ex 2/22 <sup>6)</sup>

- other singleturn resolutions

- surface protection salt spray tested

- seawater resistant (stainless steel V4A)

Salt spray tested / stainless steel V4A as standard types (deliverable as from 1 unit)

salt spray tested:

8.5863.32X6.XX22-C

V4A

1.4404

stainless steel V4A:

8.5863.32X6.XX22-V4A

Order code

Hollow shaft

8.5883

Type

XXXX

a b c d

XX2X

e f g h

a Flange

1 = with spring element, long, IP65

2 = with spring element, long, IP67

3 = with stator coupling, IP65 ø 65 mm [2.56"]

4 = with stator coupling, IP67 ø 65 mm [2.56"]

5 = with stator coupling, IP65 ø 63 mm [2.48"]

6 = with stator coupling, IP67 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"]

8 = ø 3/8"

9 = ø 1/2"

Blind hollow shaft

(insertion depth max. 30 mm [1.18"])

6 = ø 15 mm [0.59"]

c Interface / power supply

1 = SSI, BiSS / 5 V DC

2 = SSI, BiSS / 10 ... 30 V DC

3 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC

4 = SSI, BiSS + 2048 ppr. SinCos / 10 ... 30 V DC

5 = SSI, BiSS / 5 V DC, with sensor output

6 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC, with sensor output

7 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC

8 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 10 ... 30 V DC

9 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC, with sensor output

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 \*)

4 = radial M23 connector, 12-pin

6 = radial M12 connector, 8-pin 2)

\*) Available special lengths (connection types B, F):  
2, 3, 5, 8, 10, 15 m [5.56, 9.84, 16.40, 26.25, 32.80, 49.21']  
order code expansion .XXXX = length in dm  
ex.: 8.5883.542B.G323.0030 (for cable length 3 m)

e Code

B = SSI, binary

C = BiSS, binary

G = SSI, gray

f Resolution 1)

A = 10 bit ST + 12 bit MT

1 = 11 bit ST + 12 bit MT

2 = 12 bit ST + 12 bit MT

3 = 13 bit ST + 12 bit MT

4 = 14 bit ST + 12 bit MT

7 = 17 bit ST + 12 bit MT

g Inputs / outputs 1)

2 = SET, DIR input  
additional  
status output

h Options (service)

1 = no option

2 = status LED

3 = SET button and  
status LED

Optional on request


- Ex 2/22 (not for type of connection E, F) 3)

- other singleturn resolutions

- surface protection salt spray tested

- seawater resistant (stainless steel V4A)

Salt spray tested / stainless steel V4A as standard types (deliverable as from 1 unit)



salt spray tested:

8.5883.24X6.XX22-C

8.5883.25X6.XX22-C

V4A

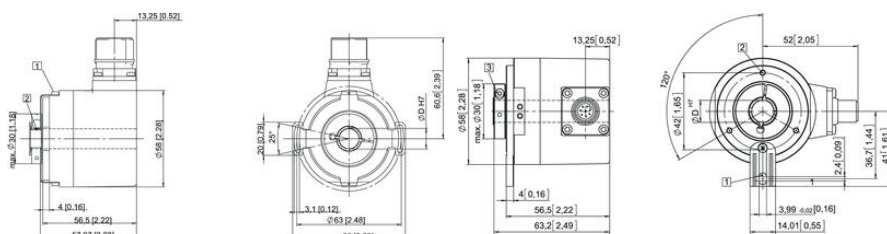
1.4404

stainless steel V4A:

8.5883.24X6.XX22-V4A

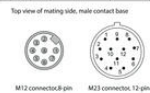
## TECHNICAL DATA

|                             |                         |
|-----------------------------|-------------------------|
| Connection                  | Cable, M12, M23 contact |
| Housing diameter            | 58 mm                   |
| IP class                    | IP65, IP67              |
| Mounting                    | Hollow shaft            |
| Output                      | SSI                     |
| Resolution MT               | Max. 12 bit             |
| Sensor type                 | Absolute                |
| Shaft diameter max          | 15 mm                   |
| Shaft diameter min          | 10 mm                   |
| Supply voltage dc max       | 30 V DC                 |
| Supply voltage dc min       | 5 V DC                  |
| Temperature operational max | 90 °C                   |
| Temperature operational min | -40 °C                  |
| Version                     | Multiturn               |



| Interface  | Type of connector | Features                           | Cable (isolate unused wires individually before initial start-up)   |
|------------|-------------------|------------------------------------|---|
| 1, 2       | 1, 2, A, B, E, F  | SET, DIR, Status                   | Signal: 0 V +V - C+ - C- D+ D- SET DIR Stat N/C N/C H<br>Cable colour: WH BN GN YE GF PK BU RD BK - - - shield          |
| Interface  | Type of connector | Features                           | M23 connector   |
| 1, 2       | 3, 4              | SET, DIR, Status                   | Signal: 0 V +V - C+ - C- D+ D- SET DIR Stat N/C N/C H<br>Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH                             |
| Interface  | Type of connector | Features                           | Cable (isolate unused wires individually before initial start-up)   |
| 5          | 1, 2, A, B, E, F  | SET, DIR, Status sensor output     | Signal: 0 V +V - C+ - C- D+ D- SET DIR Stat N/C N/C (Status) H<br>Cable colour: WH BN GN YE GF PK BU RD BK - - - shield |
| Interface  | Type of connector | Features                           | M23 connector   |
| 5          | 3, 4              | SET, DIR, Status sensor output     | Signal: 0 V +V - C+ - C- D+ D- SET DIR Stat N/C N/C (Status) H<br>Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH                    |
| Interface  | Type of connector | Features                           | Cable (isolate unused wires individually before initial start-up)   |
| 3, 4, 7, 8 | 1, 2, A, B, E, F  | SET, DIR, SinCos or inc. RS422     | Signal: 0 V +V - C+ - C- D+ D- SET DIR A X B B H<br>Cable colour: WH BN GN YE GF PK BU RD BK VT GF PK RD-BU shield      |
| Interface  | Type of connector | Features                           | M23 connector   |
| 3, 4, 7, 8 | 3, 4              | SET, DIR, SinCos or inc. RS422     | Signal: 0 V +V - C+ - C- D+ D- SET DIR A X B B H<br>Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH                                  |
| Interface  | Type of connector | Features                           | Cable (isolate unused wires individually before initial start-up)   |
| 6          | 1, 2, A, B, E, F  | SinCos or inc. RS422 sensor output | Signal: 0 V +V - C+ - C- D+ D- A X B B (Status) H<br>Cable colour: WH BN GN YE GF PK BU RD BK VT GF PK RD-BU shield     |
| Interface  | Type of connector | Features                           | M23 connector   |
| 6          | 3, 4              | SinCos or inc. RS422 sensor output | Signal: 0 V +V - C+ - C- D+ D- A X B B (Status) H<br>Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH                                 |
| Interface  | Type of connector | Features                           | M17 connector   |
| 1, 2       | 5, 6              | SET, DIR                           | Signal: 0 V +V - C+ - C- D+ D- SET DIR H<br>Pin: 1 2 3 4 5 6 7 8 PH   |

+V Encoder power supply +V DC  
0 V Encoder power supply ground GND (0 V)  
0 Vaux / +Vaux Using the sensor outputs of the encoders, the voltage present can be measured and if necessary increased accordingly.  
C+ C- Click signal  
D+ D- Data signal  
A, B Incremental output channel A (A cosine)  
B, B Incremental output channel B (sine)  
SET Set input. The current position becomes defined as position zero.  
DIR Direction input. If this input is active, output values are counted backwards (decreased) when the shaft is turning clockwise.  
Stat Status output  
PH Plug connector housing (shield)



| Interface  | Type of connector | Features                           | Cable (isolate unused wires individually before initial start-up)   |
|------------|-------------------|------------------------------------|---|
| 1, 2       | 1, 2, A, B, E, F  | SET, DIR, Status                   | Signal: 0 V +V - C+ - C- D+ D- SET DIR Stat N/C N/C H<br>Cable colour: WH BN GN YE GF PK BU RD BK - - - shield          |
| Interface  | Type of connector | Features                           | M23 connector   |
| 1, 2       | 3, 4              | SET, DIR, Status                   | Signal: 0 V +V - C+ - C- D+ D- SET DIR Stat N/C N/C H<br>Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH                             |
| Interface  | Type of connector | Features                           | Cable (isolate unused wires individually before initial start-up)   |
| 5          | 1, 2, A, B, E, F  | SET, DIR, Status sensor output     | Signal: 0 V +V - C+ - C- D+ D- SET DIR Stat N/C N/C (Status) H<br>Cable colour: WH BN GN YE GF PK BU RD BK - - - shield |
| Interface  | Type of connector | Features                           | M23 connector   |
| 5          | 3, 4              | SET, DIR, Status sensor output     | Signal: 0 V +V - C+ - C- D+ D- SET DIR Stat N/C N/C (Status) H<br>Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH                    |
| Interface  | Type of connector | Features                           | Cable (isolate unused wires individually before initial start-up)   |
| 3, 4, 7, 8 | 1, 2, A, B, E, F  | SET, DIR, SinCos or inc. RS422     | Signal: 0 V +V - C+ - C- D+ D- SET DIR A X B B H<br>Cable colour: WH BN GN YE GF PK BU RD BK VT GF PK RD-BU shield      |
| Interface  | Type of connector | Features                           | M23 connector   |
| 3, 4, 7, 8 | 3, 4              | SET, DIR, SinCos or inc. RS422     | Signal: 0 V +V - C+ - C- D+ D- SET DIR A X B B H<br>Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH                                  |
| Interface  | Type of connector | Features                           | Cable (isolate unused wires individually before initial start-up)   |
| 6          | 1, 2, A, B, E, F  | SinCos or inc. RS422 sensor output | Signal: 0 V +V - C+ - C- D+ D- A X B B (Status) H<br>Cable colour: WH BN GN YE GF PK BU RD BK VT GF PK RD-BU shield     |
| Interface  | Type of connector | Features                           | M23 connector   |
| 6          | 3, 4              | SinCos or inc. RS422 sensor output | Signal: 0 V +V - C+ - C- D+ D- A X B B (Status) H<br>Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH                                 |
| Interface  | Type of connector | Features                           | M17 connector   |
| 1, 2       | 5, 6              | SET, DIR                           | Signal: 0 V +V - C+ - C- D+ D- SET DIR H<br>Pin: 1 2 3 4 5 6 7 8 PH   |

+V Encoder power supply +V DC  
0 V Encoder power supply ground GND (0 V)  
0 Vaux / +Vaux Using the sensor outputs of the encoders, the voltage present can be measured and if necessary increased accordingly.  
C+ C- Click signal  
D+ D- Data signal  
A, B Incremental output channel A (A cosine)  
B, B Incremental output channel B (sine)  
SET Set input. The current position becomes defined as position zero.  
DIR Direction input. If this input is active, output values are counted backwards (decreased) when the shaft is turning clockwise.  
Stat Status output  
PH Plug connector housing (shield)

