

# KUEBLER - ABSOLUTE-CODED ANGULAR TRANSMITTER SENDIX F5863 / F5883, OPTICAL, SSI, Ø58 MM

SERIE F5863

- Housing diameter Ø58 mm
- SSI-Interface
- Total resolution 41 bits
- 100% insensitive to magnetic fields



## Product description

Sendix F5863 / F5883 is a series of robust absolute encoded SSI axis sensors for demanding environments. Thanks to its rugged construction with Safety-Lock™ and the fully cast housing, the sensor can also handle the more demanding applications where the requirements are high. 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. Perfect for applications requiring high resolution.

The LED indication facilitates diagnostics of the sensor in place and saves time when troubleshooting.

Please refer to the images below for ordering information.

Order code	8.F5863 . XXXX . XXXX	
Shaft version	Type	a b c d e f g h
<b>a Flange</b>	<b>c Interface / power supply</b>	<b>e Code</b>
1 = clamping flange, IP65 ø 58 mm [2.28"]	1 = SSI, BiSS / 5 V DC	B = SSI, binary
3 = clamping flange, IP67 ø 58 mm [2.28"]	<b>2 = SSI, BiSS / 10 ... 30 V DC</b>	C = BiSS, binary
<b>2 = synchro flange, IP65 ø 58 mm [2.28"]</b>	3 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC	<b>G = SSI, gray</b>
4 = synchro flange, IP67 ø 58 mm [2.28"]	4 = SSI, BiSS + 2048 ppr. SinCos / 10 ... 30 V DC	<b>f Resolution (singleturn)<sup>4)</sup></b>
<b>b Shaft (ø x L), with flat</b>	5 = SSI, BiSS / 5 V DC, with sensor output	B = 9 bit ST
1 = 6 x 10 mm [0.24 x 0.39"] <sup>1)</sup>	6 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC, with sensor output	A = 10 bit ST
2 = 10 x 20 mm [0.39 x 0.79"] <sup>2)</sup>	7 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC	1 = 11 bit ST
3 = 1/4" x 7/8"	8 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 10 ... 30 V DC	2 = 12 bit ST
4 = 3/8" x 7/8"	<b>d Type of connection</b>	<b>3 = 13 bit ST</b>
	1 = axial cable, 1 m [3.28'] PVC	4 = 14 bit ST
	A = axial cable, special length PVC *)	7 = 17 bit ST
	<b>2 = radial cable, 1 m [3.28'] PVC</b>	
	B = radial cable, special length PVC *)	
	3 = axial M23 connector, 12-pin	
	<b>4 = radial M23 connector, 12-pin</b>	
	5 = axial M12 connector, 8-pin <sup>3)</sup>	
	6 = radial M12 connector, 8-pin <sup>3)</sup>	
	<b>h Options (service)</b>	
	*) Available special lengths (connection types A, B):	1 = no option
	2, 3, 5, 8, 10, 15 m [5.56, 9.84, 16.40, 26.25, 32.80, 49.21']	2 = status LED
	order code expansion .XXXX = length in dm	<b>3 = SET button and status LED</b>
	ex.: 8.F5863.122A.G323.0030 (for cable length 3 m)	
		<b>Optional on request</b>
		- Ex 2/22 <sup>5)</sup>
		- surface protection salt spray tested
		- other singleturn resolutions

**Order code**  
**Hollow shaft**

**8.F5883**  
Type

**.XXXXX.XXXX**  
a b c d 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"]
- 6 = ø 15 mm [0.59"]
- 8 = ø 3/8"
- 9 = ø 1/2"

**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

**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 <sup>2)</sup>

\*) 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.F5883.542B.G323.0030 (for cable length 3 m)

**e Code**

- B = SSI, binary
- C = BiSS, binary
- G = SSI, gray**

**g Resolution (multiturn) <sup>1)</sup>**

- 2 = 12 bit MT**
- 6 = 16 bit MT
- 4 = 24 bit MT

**f Resolution (singleturn) <sup>1)</sup>**

- B = 9 bit ST
- A = 10 bit ST
- 1 = 11 bit ST
- 2 = 12 bit ST
- 3 = 13 bit ST**
- 4 = 14 bit ST
- 7 = 17 bit ST

**h Options (service)**

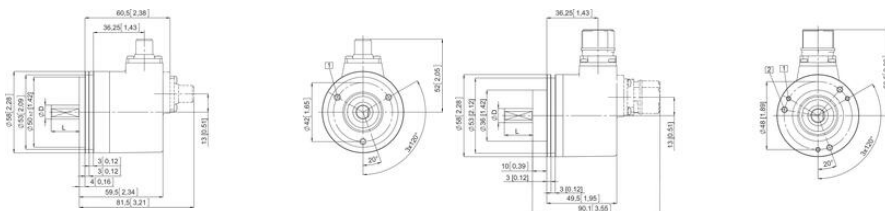
- 1 = no option
- 2 = status LED
- 3 = SET button and status LED**

*Optional on request*

- Ex 2/22 (not for type of connection E, F) <sup>3)</sup>
- surface protection salt spray tested
- other singleturn resolutions

**Specifications**

<b>Housing diameter</b>	58
<b>IP Class</b>	IP65, IP67
<b>Resolution Envarv</b>	SSI: 10-17 bit, BiSS: 10-17 bit
<b>Resolution More Yards</b>	SSI: max. 24 bit, BiSS: max. 24 bit
<b>Shaft Diameter max</b>	10
<b>Shaft Diameter min</b>	6
<b>Supply Voltage DC Max</b>	30
<b>Supply Voltage DC Min</b>	5
<b>Temperature range from</b>	-40
<b>Temperature range to</b>	85



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: 0V +V +C+ C- D+ D- SET DIR Stat. N/C N/C H Cable colour: WH BK GN YE GF PK BU RD BK - - - - - sheat
Interface	Type of connector	Features	
1,2	3,4	SET, DIR, Status	Signal: 0V +V +C+ C- D+ D- SET DIR Stat. N/C N/C H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connector	Features	
5	1, 2, A, B, E, F	SET, DIR, Status sensor output	Signal: 0V +V +C+ C- D+ D- SET DIR Stat. N/C N/C H Cable colour: WH BK GN YE GF PK BU RD BK - - - - - sheat
Interface	Type of connector	Features	
5	3,4	SET, DIR, Status sensor output	Signal: 0V +V +C+ C- D+ D- SET DIR Stat. N/C N/C H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connector	Features	
3,4,7,8	1, 2, A, B, E, F	SET, DIR, SinCos or inc. RS422	Signal: 0V +V +C+ C- D+ D- SET DIR A B B H Cable colour: WH BK GN YE GF PK BU RD BK VT CH PK RD-BU sheat
Interface	Type of connector	Features	
3,4,7,8	3,4	SET, DIR, SinCos or inc. RS422	Signal: 0V +V +C+ C- D+ D- SET DIR A B B H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connector	Features	
6	1, 2, A, B, E, F	SinCos or inc. RS422 sensor output	Signal: 0V +V +C+ C- D+ D- SET DIR A B B H Cable colour: WH BK GN YE GF PK BU RD BK VT CH PK RD-BU sheat
Interface	Type of connector	Features	
6	3,4	SinCos or inc. RS422 sensor output	Signal: 0V +V +C+ C- D+ D- SET DIR A B B H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connector	Features	
1,2	5,6	SET, DIR	Signal: 0V +V +C+ C- D+ D- SET DIR H Pin: 1 2 3 4 5 6 7 8 PH

4/0 Encoder power supply +V DC  
0V Encoder power supply ground GND 0V  
0 Watt / 0 Watt Using the sensor output of the encoder, the voltage present can be measured and if necessary processed accordingly.  
C- C- Clock signal  
D+ D+ Data signal  
A, B Incremental output channel A (count)  
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 (decrease) when the shaft is turning clockwise.  
Stat. Status output  
PH H Plug connector housing (shield)

