

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

- 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.

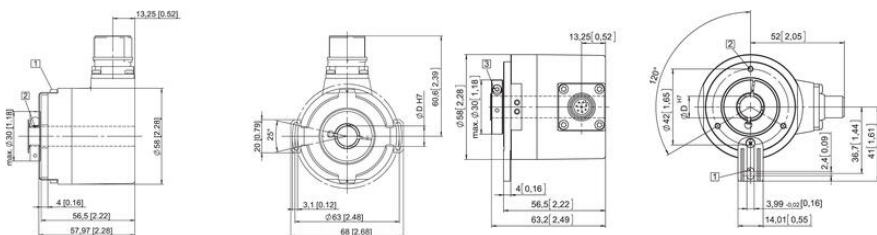
Please refer to the images below for ordering information.

Order code Shaft version		8.F5863 Type		.XXXXX		.XXXXX					
				a	b	c	d	e	f	g	h
<b>a Flange</b>		<b>c Interface / power supply</b>		<b>e Code</b>		<b>g Resolution</b>					
<b>1 = clamping flange, IP65 ø 58 mm [2.28"]</b>		<b>1 = SSI, BiSS / 5 V DC</b>		<b>B = SSI, binary</b>		<b>(multiturn)<sup>4)</sup></b>					
<b>3 = clamping flange, IP67 ø 58 mm [2.28"]</b>		<b>2 = SSI, BiSS / 10 ... 30 V DC</b>		<b>C = BiSS, binary</b>				<b>2 = 12 bit MT</b>			
<b>2 = synchro flange, IP65 ø 58 mm [2.28"]</b>		<b>3 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC</b>		<b>G = SSI, gray</b>				<b>6 = 16 bit MT</b>			
<b>4 = synchro flange, IP67 ø 58 mm [2.28"]</b>		<b>4 = SSI, BiSS + 2048 ppr. SinCos / 10 ... 30 V DC</b>		<b>1 Resolution</b>		<b>(singleturn)<sup>4)</sup></b>		<b>4 = 24 bit MT</b>			
		<b>5 = SSI, BiSS / 5 V DC, with sensor output</b>		<b>B = 9 bit ST</b>							
		<b>6 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC, with sensor output</b>		<b>A = 10 bit ST</b>							
		<b>7 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC</b>		<b>1 = 11 bit ST</b>							
		<b>8 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 10 ... 30 V DC</b>		<b>2 = 12 bit ST</b>							
				<b>3 = 13 bit ST</b>							
				<b>4 = 14 bit ST</b>							
				<b>7 = 17 bit ST</b>							
<b>b Shaft (ø x L), with flat</b>		<b>d Type of connection</b>		<b>Optional on request</b>							
<b>1 = 6 x 10 mm [0.24 x 0.39"]<sup>1)</sup></b>		<b>1 = axial cable, 1 m [3.28"] PVC</b>		<b>- Ex 2/22<sup>5)</sup></b>							
<b>2 = 10 x 20 mm [0.39 x 0.79"]<sup>2)</sup></b>		<b>A = axial cable, special length PVC *)</b>		<b>- surface protection salt spray tested</b>							
<b>3 = 1/4" x 7/8"</b>		<b>2 = radial cable, 1 m [3.28"] PVC</b>		<b>- other singleturn resolutions</b>							
<b>4 = 3/8" x 7/8"</b>		<b>B = radial cable, special length PVC *)</b>									
		<b>3 = axial M23 connector, 12-pin</b>									
		<b>4 = radial M23 connector, 12-pin</b>									
		<b>5 = axial M12 connector, 8-pin<sup>3)</sup></b>									
		<b>6 = radial M12 connector, 8-pin<sup>3)</sup></b>									
		<b>*) Available special lengths (connection types A, B):</b>									
		<b>2, 3, 5, 8, 10, 15 m [5.56, 9.84, 16.40, 26.25, 32.80, 49.21"]</b>									
		<b>order code expansion .XXXX = length in dm</b>									
		<b>ex.: 8.F5863.122A.G323.0030 (for cable length 3 m)</b>									

Order code		8.F5883 . XXXXX.XXXXX							
Hollow shaft		Type	a	b	c	d	e	f	g
<b>a Flange</b>			<b>c Interface / power supply</b>						
1 = with spring element, long, IP65			1 = SSI, BiSS / 5 V DC						
2 = with spring element, long, IP67			<b>2 = SSI, BiSS / 10 ... 30 V DC</b>						
3 = with stator coupling, IP65, ø 65 mm [2.56"]			3 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC						
4 = with stator coupling, IP67, ø 65 mm [2.56"]			4 = SSI, BiSS + 2048 ppr. SinCos / 10 ... 30 V DC						
<b>5 = with stator coupling, IP65, ø 63 mm [2.48"]</b>			5 = SSI, BiSS / 5 V DC, with sensor output						
6 = with stator coupling, IP67, ø 63 mm [2.48"]			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						
<b>b Through hollow shaft</b>			<b>d Type of connection</b>						
3 = ø 10 mm [0.39"]			<b>2 =</b> radial cable, 1 m [3.28"] PVC						
<b>4 = ø 12 mm [0.47"]</b>			B = radial cable, special length PVC *)						
5 = ø 14 mm [0.55"]			<b>E = tangential cable, 1 m [3.28"] PVC</b>						
6 = ø 15 mm [0.59"]			F = tangential cable, special length PVC *)						
8 = ø 3/8"			<b>4 = radial M23 connector, 12-pin</b>						
9 = ø 1/2"			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)						
			<b>e Code</b>						
			B = SSI, binary						
			C = BiSS, binary						
			<b>G = SSI, gray</b>						
			<b>f Resolution (singleturn) <sup>1)</sup></b>						
			B = 9 bit ST						
			A = 10 bit ST						
			1 = 11 bit ST						
			2 = 12 bit ST						
			<b>3 = 13 bit ST</b>						
			4 = 14 bit ST						
			7 = 17 bit ST						
			<b>g Resolution (multiturn) <sup>1)</sup></b>						
			<b>2 = 12 bit MT</b>						
			6 = 16 bit MT						
			4 = 24 bit MT						
			<b>h Options (service)</b>						
			1 = no option						
			2 = status LED						
			<b>3 = SET button and status LED</b>						
			Optional on request						
			- Ex 2/22 (not for type of connection E, F) <sup>3)</sup>						
			- surface protection salt spray tested						
			- other singleturn resolutions						

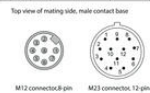
## TECHNICAL DATA

Connection	Cable, M12, M23 contact
Housing diameter	58 mm
IP class	IP65, IP67
Mounting	Hollow shaft
Output	SSI
Resolution MT	SSI: max. 24 bit, BiSS: max. 24 bit
Resolution ST	SSI: 10-17 bit, BiSS: 10-17
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	85 °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 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 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 H 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 H 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, Sin/Cos or inc. RS422	Signal: 0 V +V - C+ - C- D+ D- SET DIR A X B B H 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, Sin/Cos or inc. RS422	Signal: 0 V +V - C+ - C- D+ D- SET DIR A X B B H 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	Sin/Cos or inc. RS422 sensor output	Signal: 0 V +V - C+ - C- D+ D- A X B B H 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	Sin/Cos or inc. RS422 sensor output	Signal: 0 V +V - C+ - C- D+ D- A X B B H 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 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 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 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 H 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 H 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, Sin/Cos or inc. RS422	Signal: 0 V +V - C+ - C- D+ D- SET DIR A X B B H 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, Sin/Cos or inc. RS422	Signal: 0 V +V - C+ - C- D+ D- SET DIR A X B B H 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	Sin/Cos or inc. RS422 sensor output	Signal: 0 V +V - C+ - C- D+ D- A X B B H 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	Sin/Cos or inc. RS422 sensor output	Signal: 0 V +V - C+ - C- D+ D- A X B B H 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 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)

