

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
a Flange	c Interface / power supply	e Code
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"]	2 = SSI, BiSS / 10 ... 30 V DC	C = BiSS, binary
2 = synchro flange, IP65 ø 58 mm [2.28"]	3 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC	G = SSI, gray
4 = synchro flange, IP67 ø 58 mm [2.28"]	4 = SSI, BiSS + 2048 ppr. SinCos / 10 ... 30 V DC	f Resolution (singleturn) ⁴⁾
b Shaft (ø x L), with flat	5 = SSI, BiSS / 5 V DC, with sensor output	B = 9 bit ST
1 = 6 x 10 mm [0.24 x 0.39"] ¹⁾	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"] ²⁾	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"	d Type of connection	3 = 13 bit ST
	1 = axial cable, 1 m [3.28'] PVC	4 = 14 bit ST
	A = axial cable, special length PVC *)	7 = 17 bit ST
	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 ³⁾	
	6 = radial M12 connector, 8-pin ³⁾	
	h Options (service)	
	1 = no option	
	2 = status LED	
	3 = SET button and status LED	
	g Resolution (multiturn) ⁴⁾	
	2 = 12 bit MT	
	6 = 16 bit MT	
	4 = 24 bit MT	
	Optional on request	
	- Ex 2/22 ⁵⁾	
	- surface protection salt spray tested	
	- other singleturn resolutions	
	*) 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.F5863.122A.G323.0030 (for cable length 3 m)	

Order code
Hollow shaft

8.F5883
Type

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

e Code

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

f Resolution (singleturn) ¹⁾

- 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

g Resolution (multiturn) ¹⁾

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

h Options (service)

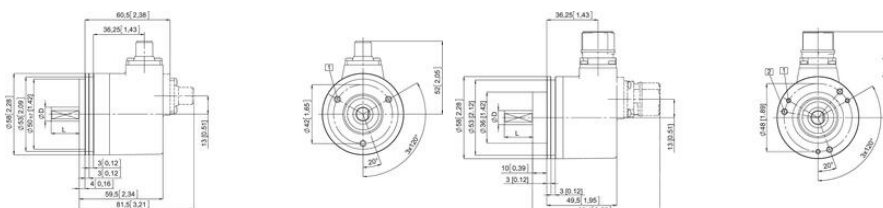
- 1 = no option
- 2 = status LED
- 3 = SET button and status LED**

Optional on request

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

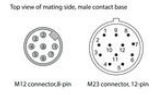
Specifications

Connection Thread	Cable, M12, M23 contact
Housing diameter	58
IP Class	IP65, IP67
Mounting	Shoulder
Output	SSI
Resolution Envarv	SSI: 10-17 bit, BiSS: 10-17 bit
Resolution More Yards	SSI: max. 24 bit, BiSS: max. 24 bit
Sensor type	Absolute
Shaft Diameter max	10
Shaft Diameter min	6
Supply Voltage DC Max	30
Supply Voltage DC Min	5
Temperature range from	-40
Temperature range to	85
Version	Multiturn



Interface	Type of connection	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 connection	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 connection	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 (Status) (Status) H Cable colour: WH BN GN YE GF PK BU RD BK - - (GPN) (RD-BU) shield
Interface	Type of connection	Features	M23 connector
5	3,4	SET, DIR, Status sensor output	Signal: 0 V +V C+ C- D+ D- SET DIR Stat N/C (Status) (Status) H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connection	Features	Cable isolate unused wires individually before initial start up!
3,4,7,8	1, 2, A, B, E, F	SET, DIR, SinCos or incr. RS422	Signal: 0 V +V C+ C- D+ D- SET DIR A X B B (Status) H Cable colour: WH BN GN YE GF PK BU RD BK VT (GPN) (RD-BU) shield
Interface	Type of connection	Features	M23 connector
3,4,7,8	3,4	SET, DIR, SinCos or incr. RS422	Signal: 0 V +V C+ C- D+ D- SET DIR A X B B (Status) H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connection	Features	Cable isolate unused wires individually before initial start up!
6	1, 2, A, B, E, F	SinCos or incr. RS422 sensor output	Signal: 0 V +V C+ C- D+ D- A X B B (Status) (Status) H Cable colour: WH BN GN YE GF PK BU RD BK VT (GPN) (RD-BU) shield
Interface	Type of connection	Features	M23 connector
6	3,4	SinCos or incr. RS422 sensor output	Signal: 0 V +V C+ C- D+ D- A X B B (Status) (Status) H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connection	Features	M12 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 encodes, the voltage present can be measured and if necessary increased accordingly.
C+, C- Click signal
D+, D- Data signal
A, X Incremental output channel A (optional)
B, B Incremental output channel B (optional)
SET Set input. The current position becomes defined as position zero.
DIR Direction input. If this input is active, output values are counted backwards (decreasing) when the shaft is turning clockwise.
Stat Status output
PH Plug connector housing shield



Interface	Type of connection	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 connection	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 N/C H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connection	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 (Status) (Status) H Cable colour: WH BN GN YE GF PK BU RD BK - - (GPN) (RD-BU) shield
Interface	Type of connection	Features	M23 connector
5	3,4	SET, DIR, Status sensor output	Signal: 0 V +V C+ C- D+ D- SET DIR Stat N/C (Status) (Status) H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connection	Features	Cable isolate unused wires individually before initial start up!
3,4,7,8	1, 2, A, B, E, F	SET, DIR, SinCos or incr. RS422	Signal: 0 V +V C+ C- D+ D- SET DIR A X B B (Status) H Cable colour: WH BN GN YE GF PK BU RD BK VT (GPN) (RD-BU) shield
Interface	Type of connection	Features	M23 connector
3,4,7,8	3,4	SET, DIR, SinCos or incr. RS422	Signal: 0 V +V C+ C- D+ D- SET DIR A X B B (Status) H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connection	Features	Cable isolate unused wires individually before initial start up!
6	1, 2, A, B, E, F	SinCos or incr. RS422 sensor output	Signal: 0 V +V C+ C- D+ D- A X B B (Status) (Status) H Cable colour: WH BN GN YE GF PK BU RD BK VT (GPN) (RD-BU) shield
Interface	Type of connection	Features	M23 connector
6	3,4	SinCos or incr. RS422 sensor output	Signal: 0 V +V C+ C- D+ D- A X B B (Status) (Status) H Pin: 1 2 3 4 5 6 7 8 9 10 11 12 PH
Interface	Type of connection	Features	M12 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 encodes, the voltage present can be measured and if necessary increased accordingly.
C+, C- Click signal
D+, D- Data signal
A, X Incremental output channel A (optional)
B, B Incremental output channel B (optional)
SET Set input. The current position becomes defined as position zero.
DIR Direction input. If this input is active, output values are counted backwards (decreasing) when the shaft is turning clockwise.
Stat Status output
PH Plug connector housing shield

