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

SERIE 5863

- 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 Shaft version — 8.5863 . X X X X . X X 2 X (Type; a b c d . e f g h)

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"] 1)
8 = servo flange, IP67 ø 63.5 mm [2.5"] 1)

b *Shaft (ø x L), with flat*
1 = 6 x 10 mm [0.24 x 0.39"] 2)
2 = 10 x 20 mm [0.39 x 0.79"] 3)
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 4)
6 = radial M12 connector, 8-pin 4)
*) 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 5)*
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 5)*
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 6)
- 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 . XXXX . XX2X (Type; 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"]
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

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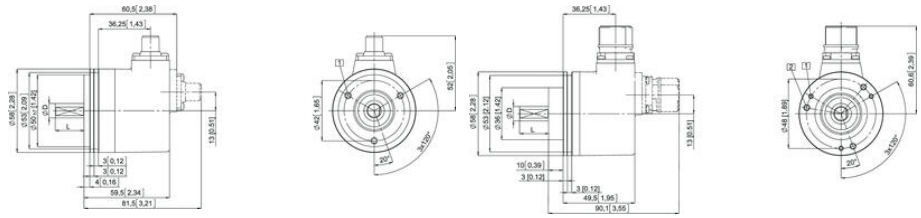
TECHNICAL DATA

Connection	Cable, M12, M23 contact
Housing diameter	58 mm
IP class	IP65, IP67
Mounting	Shoulder
Output	SSI
Resolution MT	Max. 12 bit
Sensor type	Absolute
Shaft diameter max	10 mm
Shaft diameter min	6 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 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	N/C	H
			Cable colour:	WH	BN	GN	YE	GY	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	Signal:	0 V	+V	C+	C-	D+	D-	SET	DIR	Stat	N/C	0Vsens	+Vsens	H
		sensor output	Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	-	GY-PK	RD-BU	shield

Interface	Type of connection	Features	M23 connector													
5	3, 4	SET, DIR, Status	Signal:	0 V	+V	C+	C-	D+	D-	SET	DIR	Stat	N/C	0Vsens	+Vsens	H
		sensor output	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	Signal:	0 V	+V	C+	C-	D+	D-	SET	DIR	A	$\bar{A}$	B	$\bar{B}$	H
		or incr. RS422	Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY-PK	RD-BU	shield

Interface	Type of connection	Features	M23 connector													
3, 4, 7, 8	3, 4	SET, DIR, SinCos	Signal:	0 V	+V	C+	C-	D+	D-	SET	DIR	A	$\bar{A}$	B	$\bar{B}$	H
		or incr. RS422	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 o. incr. RS422	Signal:	0 V	+V	C+	C-	D+	D-	A	$\bar{A}$	B	$\bar{B}$	0Vsens	+Vsens	H
		sensor output	Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY-PK	RD-BU	shield

Interface	Type of connection	Features	M23 connector													
6	3, 4	SinCos o. incr. RS422	Signal:	0 V	+V	C+	C-	D+	D-	A	$\bar{A}$	B	$\bar{B}$	0Vsens	+Vsens	H
		sensor output	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 V_{sens} / +V_{sens}: Using the sensor outputs of the encoder, the voltage present can be measured and if necessary increasedaccordingly.
C+, C-: Clock signal
D+, D-: Data signal
A, $\bar{A}$: Incremental output channel A (cosine)
B, $\bar{B}$: 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)

Top view of mating side, male contact base

M12 connector,8-pin

M23 connector, 12-pin

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	N/C	H
			Cable colour:	WH	BN	GN	YE	GY	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	Signal:	0 V	+V	C+	C-	D+	D-	SET	DIR	Stat	N/C	0Vsens	+Vsens	H
		sensor output	Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	-	GY-PK	RD-BU	shield

Interface	Type of connection	Features	M23 connector													
5	3, 4	SET, DIR, Status	Signal:	0 V	+V	C+	C-	D+	D-	SET	DIR	Stat	N/C	0Vsens	+Vsens	H
		sensor output	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	Signal:	0 V	+V	C+	C-	D+	D-	SET	DIR	A	$\bar{A}$	B	$\bar{B}$	H
		or incr. RS422	Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY-PK	RD-BU	shield

Interface	Type of connection	Features	M23 connector													
3, 4, 7, 8	3, 4	SET, DIR, SinCos	Signal:	0 V	+V	C+	C-	D+	D-	SET	DIR	A	$\bar{A}$	B	$\bar{B}$	H
		or incr. RS422	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 o. incr. RS422	Signal:	0 V	+V	C+	C-	D+	D-	A	$\bar{A}$	B	$\bar{B}$	0Vsens	+Vsens	H
		sensor output	Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY-PK	RD-BU	shield

Interface	Type of connection	Features	M23 connector													
6	3, 4	SinCos o. incr. RS422	Signal:	0 V	+V	C+	C-	D+	D-	A	$\bar{A}$	B	$\bar{B}$	0Vsens	+Vsens	H
		sensor output	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 V_{sens} / +V_{sens}: Using the sensor outputs of the encoder, the voltage present can be measured and if necessary increasedaccordingly.
C+, C-: Clock signal
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A, $\bar{A}$: Incremental output channel A (cosine)
B, $\bar{B}$: Incremental output channel B (sine)
SET: Set input. The current position becomes defined as position zero.
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PH H: Plug connector housing (shield)

Top view of mating side, male contact base

M12 connector,8-pin

M23 connector, 12-pin