

# KUEBLER - ABSOLUTE-CODED ANGULAR TRANSMITTER SENDIX 5853/5873, OPTICAL, SSI, Ø58 MM SERIE 5873

- Housing diameter Ø58 mm
- SSI-Interface
- High shock resistance
- High degree of enclosure



## Product description

Sendix 5853/5873 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. The LED indication facilitates diagnostics of the sensor in place and saves time when troubleshooting.

Please refer to the images below for ordering information.

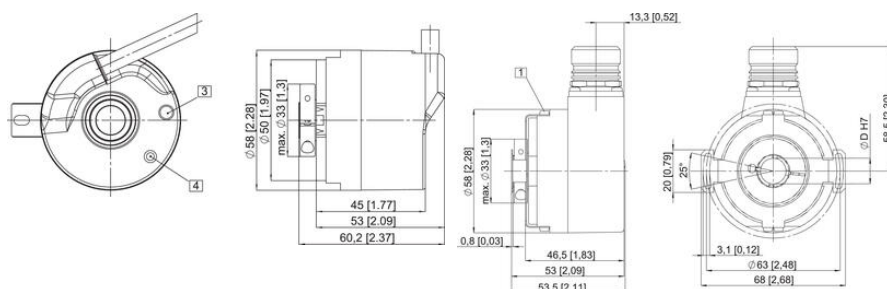
Order code		Shaft version		8.5853 . XXXXX.XX2X											
		Type		a b c d e f g h											
<b>a Flange</b>				<b>c Interface / power supply</b>				<b>e Code</b>				<b>g Inputs / outputs<sup>4)</sup></b>			
<b>1 = clamping flange, IP65 ø 58 mm [2.28"]</b>				<b>1 = SSI, BiSS / 5 V DC</b>				<b>B = SSI, binary</b>				<b>2 = SET, DIR input</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>				additional status output			
<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>h Options (service)</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>i Resolution<sup>4)</sup></b>				<b>1 = no option</b>			
<b>5 = square flange, IP65 □ 63.5 mm [2.5"]</b>				<b>5 = SSI, BiSS / 5 V DC, with sensor output</b>				<b>A = 10 bit</b>				<b>2 = status LED</b>			
<b>7 = square flange, IP67 □ 63.5 mm [2.5"]</b>				<b>6 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC, with sensor output</b>				<b>1 = 11 bit</b>				<b>3 = SET button and status LED</b>			
<b>7 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC</b>				<b>7 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC</b>				<b>2 = 12 bit</b>				Optional on request			
<b>8 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 10 ... 30 V DC</b>				<b>8 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 10 ... 30 V DC</b>				<b>3 = 13 bit</b>				- Ex 2/22 <sup>6)</sup>			
<b>9 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC, with sensor output</b>				<b>9 = SSI, BiSS + 2048 ppr. RS422 (TTL-comp.) / 5 V DC, with sensor output</b>				<b>4 = 14 bit</b>				- surface protection			
<b>d Type of connection</b>				<b>1 = axial cable, 1 m [3.28'] PVC</b>				<b>5 = 17 bit</b>				- salt spray tested			
<b>A = axial cable, special length PVC *)</b>				<b>2 = radial cable, 1 m [3.28'] PVC</b>				<b>6 = 21 bit<sup>5)</sup></b>				- other resolutions			
<b>B = radial cable, special length PVC *)</b>				<b>3 = axial M23 connector, 12-pin</b>											
<b>2 = radial 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>5 = axial M12 connector, 8-pin<sup>3)</sup></b>											
<b>6 = radial 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.: 8.5853.112A.G323.0030 (for cable length 3 m)</b>											



<b>Order code</b> <b>Hollow shaft</b>		<b>8.5873</b> Type	<b>.XXXX.XX2X</b> a b c d e f g h		
<b>a Flange</b> 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"] <b>5 = with stator coupling, IP65 ø 63 mm [2.48"]</b> 6 = with stator coupling, IP67 ø 63 mm [2.48"] E = with stator coupling, IP65 mounting without screws <sup>1)</sup> F = with stator coupling, IP67 mounting without screws <sup>1)</sup> G = with stator coupling, IP65 ø 72 mm [2.83"] <sup>1)</sup> H = with expanding coupling, IP65 ø 65 mm [2.56"] <sup>1)</sup>  <b>b Through hollow shaft</b> 3 = ø 10 mm [0.39"] <b>4 = ø 12 mm [0.47"]</b> 5 = ø 14 mm [0.55"] 6 = ø 15 mm [0.59"] 8 = ø 3/8" 9 = ø 1/2" Tapered shaft K = ø 10 mm [0.39"]		<b>c Interface / power supply</b> 1 = SSI, BiSS / 5 V DC <b>2 = SSI, BiSS / 10 ... 30 V DC</b> 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  <b>d Type of connection</b> 2 = radial cable, 1 m [3.28"] PVC B = radial cable, special length PVC *) <b>E = tangential cable, 1 m [3.28"] PVC</b> F = tangential cable, special length PVC *) <b>4 = radial M23 connector, 12-pin</b> 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.: 8.5873.542B.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 <sup>3)</sup></b> A = 10 bit 1 = 11 bit 2 = 12 bit <b>3 = 13 bit</b> 4 = 14 bit 7 = 17 bit C = 21 bit <sup>4)</sup>  <b>g Inputs / outputs <sup>3)</sup></b> <b>2 = SET, DIR input</b> additional status output  <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 with type of connection E or F) <sup>5)</sup> - surface protection salt spray tested - other resolutions	

## Specifications

Connection Thread	Cable, M12, M23 contact
Housing diameter	58
IP Class	IP65, IP67
Mounting	Hollow shaft
Output	SSI
Sensor type	Absolute
Shaft Diameter max	15
Shaft Diameter min	10
Supply Voltage DC Max	30
Supply Voltage DC Min	5
Temperature range from	-40
Temperature range to	90
Version	Singleturn





For output circuit 1 or 2 and type of connection 1, 2, 3 or 4 (2 control inputs, 1 status output)

Signal	GND	+V	+C	-C	+D	-D	SET	DIR	Stat	N/C	N/C	N/C	PE
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	-	-	-	Shield
M12 connector:	1	2	3	4	5	6	7	8	9	10	11	12	Pin

For output circuit 1 and type of connection 1, 2, 3 or 4 (2 control inputs, 1 status output, sensor outputs for voltage)

Signal	GND	+V	+C	-C	+D	-D	SET	DIR	Stat	N/C	0V sense	+5V sense	PE
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	-	GY-PK	RD-BU	Shield
M12 connector:	1	2	3	4	5	6	7	8	9	10	11	12	Pin

For output circuit 3, 4, 7 or 8 and type of connection 1, 2, 3 or 4 (2 control inputs, incremental track RS422 or SinCos)

Signal	GND	+V	+C	-C	+D	-D	SET	DIR	A	A Inv	B	B Inv	PE
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY-PK	RD-BU	Shield
M12 connector:	1	2	3	4	5	6	7	8	9	10	11	12	Pin

For output circuit 5 or 9 and type of connection 1, 2, 3 or 4 (SinCos or incremental track, sensor outputs for voltage)

Signal	GND	+V	+C	-C	+D	-D	A	A Inv	B	B Inv	0V sense	+5V sense	PE
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY-PK	RD-BU	Shield
M12 connector:	1	2	3	4	5	6	7	8	9	10	11	12	Pin

For output circuit 1 or 2 and type of connection 5 or 6 (2 control inputs)

Signal	GND	+V	+C	-C	+D	-D	SET	DIR	Shield/PE
M12 connector:	1	2	3	4	5	6	7	8	Pin

+V: Encoder Power Supply +V DC  
GND: Encoder Power Supply Ground (0V)

+C: -C: Clock signal

+D: -D: Data signal

SET: Set input. The current position is set to zero

DIR: Direction input. If this input is active, the output values are counted backwards (decrease) when the shaft is turning clockwise.

Stat: Status output

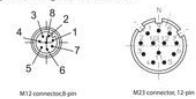
PE: Protective earth

Pin: Plug connector housing (shield)

A, A Inv: Sine output (incremental)

B, B Inv: Cosine output (incremental)

Top view of mating side, male contact base



M12 connector, 8 pin

M12 connector, 12 pin

For output circuit 1 or 2 and type of connection 1, 2, 3 or 4 (2 control inputs, 1 status output)

Signal	GND	+V	+C	-C	+D	-D	SET	DIR	Stat	N/C	N/C	N/C	PE
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	-	-	-	Shield
M12 connector:	1	2	3	4	5	6	7	8	9	10	11	12	Pin

For output circuit 5 and type of connection 1, 2, 3 or 4 (2 control inputs, 1 status output, sensor outputs for voltage)

Signal	GND	+V	+C	-C	+D	-D	SET	DIR	Stat	N/C	0V sense	+5V sense	PE
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	-	GY-PK	RD-BU	Shield
M12 connector:	1	2	3	4	5	6	7	8	9	10	11	12	Pin

For output circuit 3, 4, 7 or 8 and type of connection 1, 2, 3 or 4 (2 control inputs, incremental track RS422 or SinCos)

Signal	GND	+V	+C	-C	+D	-D	SET	DIR	A	A Inv	B	B Inv	PE
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY-PK	RD-BU	Shield
M12 connector:	1	2	3	4	5	6	7	8	9	10	11	12	Pin

For output circuit 5 or 9 and type of connection 1, 2, 3 or 4 (SinCos or incremental track, sensor outputs for voltage)

Signal	GND	+V	+C	-C	+D	-D	A	A Inv	B	B Inv	0V sense	+5V sense	PE
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY-PK	RD-BU	Shield
M12 connector:	1	2	3	4	5	6	7	8	9	10	11	12	Pin

For output circuit 1 or 2 and type of connection 5 or 6 (2 control inputs)

Signal	GND	+V	+C	-C	+D	-D	SET	DIR	Shield/PE
M12 connector:	1	2	3	4	5	6	7	8	Pin

+V: Encoder Power Supply +V DC  
GND: Encoder Power Supply Ground (0V)

+C: -C: Clock signal

+D: -D: Data signal

SET: Set input. The current position is set to zero

DIR: Direction input. If this input is active, the output values are counted backwards (decrease) when the shaft is turning clockwise.

Stat: Status output

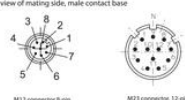
PE: Protective earth

Pin: Plug connector housing (shield)

A, A Inv: Sine output (incremental)

B, B Inv: Cosine output (incremental)

Top view of mating side, male contact base



M12 connector, 8 pin

M12 connector, 12 pin