



KUEBLER - ABSOLUTE-CODED ANGULAR TRANSMITTER SENDIX F3653 / F3673, OPTICAL, SSI, Ø36 MM SERIE F3653

- Housing diameter Ø36 mm
- SSI-Interface
- 17 bit resolution
- -40 to +90 ° C working temperature



Product description

Sendix F3653 / F3673 is a series of single-axis optical axial and hole axle outputs with SSI interface and a resolution of up to 17 bits, despite its compact size of 36x42 mm. The sensor also has high enclosure class, shock resistance and a wide temperature range. The sensor is therefore very suitable for applications where extreme environments or temperatures can occur, such as mobile applications. The sensor is supplied with a tangential cable, which means that there is no exposed cable input on the sensor, but it is embedded in the housing itself to increase impact on impact and impact. The Sendix F3653 / F3673 is also available in a salt water resistant version.

Please refer to the images below for ordering information.

Order code		8.F3653		.XXXXX		.XX12	
Shaft version		Type		a	b	c	d
a Flange							
1 = clamping flange, IP67, ø 36 mm [1.42"]							
3 = clamping flange, IP65, ø 36 mm [1.42"]							
2 = synchro flange, IP67, ø 36 mm [1.42"]							
4 = synchro flange, IP65, ø 36 mm [1.42"]							
b Shaft (ø x L), with flat							
1 = ø 6 x 12.5 mm [0.24 x 0.49"]							
3 = ø 8 x 15 mm [0.32 x 0.59"]							
5 = ø 10 x 20 mm [0.39 x 0.79"]							
2 = ø 1/4" x 12.5 mm [0.49"]							
4 = ø 3/8" x 5/8"							
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 / 5 V DC							
8 = SSI, BiSS + 2048 ppr. RS422 / 10 ... 30 V DC							
d Type of connection							
1 = tangential cable, 1 m [3.28] PUR							
3 = tangential cable, 5 m [16.40] PUR							
F = tangential cable, special length PUR *)							
8 = axial M12 connector, 8-pin ¹⁾							
*) Available special lengths (connection type F):							
2, 3, 8, 10, 15 m [6.56, 9.84, 26.25, 32.80, 49.21']							
order code expansion .XXXX = length in dm							
ex.: 8.F3653.432F.G312.0030 (for cable length 3 m)							
e Code							
B = SSI, binary							
C = BiSS, binary							
G = SSI, gray							
f Resolution							
A = 10 bit							
2 = 12 bit							
3 = 13 bit							
4 = 14 bit							
7 = 17 bit							
Optional on request							
- surface protection							
- salt spray tested							
- other resolutions							

8.F3673	.	X	X	X	X	.	X	X	12
Type		a	b	c	d		e	f	

2 = with stator coupling, IP65, ø 46 mm [1.81"]

4 = \varnothing 10 mm [0.39"]

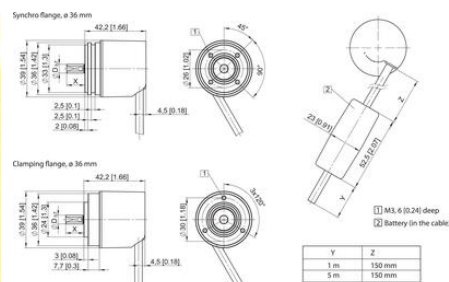
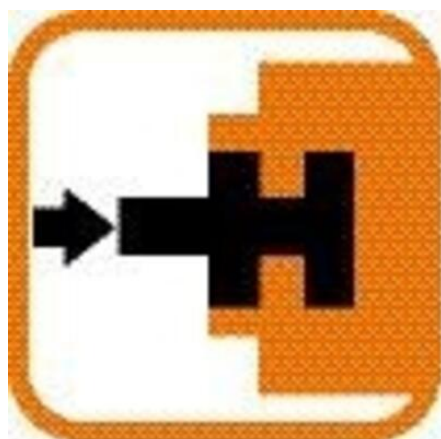
ex.: 8.F3673.242F.G312.0030 (for cable length 3 m)

G = SSI, gray

7 = 17 bit

- other resolutions

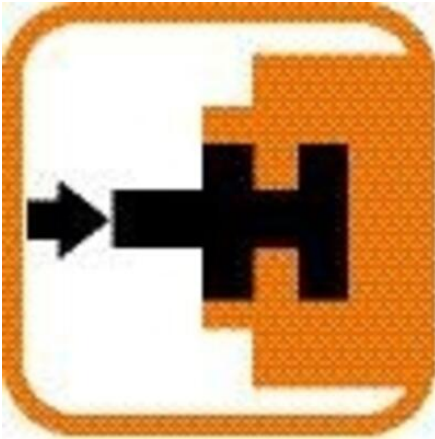
Connection Thread	Cable
Housing diametre	36
IP Class	IP65, IP67
Mounting	Shoulder
Output	SSI
Sensor type	Absolute
Shaft Diameter max	10
Shaft Diameter min	6
Supply Voltage DC Max	30
Supply Voltage DC Min	5
Temperature range from	-40
Temperature range to	90
Version	Singleturn



Terminal assignment												
Interface	Type of connection	Features	Cable									
1, 2	1, 3	SD or BSL, SET, Dn, Status	Signal:	GND	+V	+C	-C	+D	SET	DIR	Stat	PE
			Cable:	WH	BN	GN	VE	GY	PK	BU	RD	Sh
Interface	1, 2	5	M12 connection									
		SD or BSL, SET, Dn	M12 connector:	1	2	3	4	5	6	7	8	Shield/PE
			M12 connector:	GND	+V	+C	-C	+D	SET	DIR	Stat/PE	
			Cable:	WH	BN	GN	VE	GY	PK	BU	RD	Sh
Interface	3, 4	1, 3	SD or BSL, SET, Dn, Status	Signal:	GND	+V	+C	+D	SET	DIR	A Yes	B Yes
			Cable:	WH	BN	GN	VE	GY	PK	BU	RD	Sh
Interface	Type of connection	Features	Cable									
5	1, 3	SD or BSL, SET, Dn, Sensor output	Cable:	GND	+V	+C	-C	+D	SET	DIR	ODYes	+VYes
			Cable:	WH	BN	GN	VE	GY	PK	BU	RD	Sh
Interface	Type of connection	Features	Cable									
5	1, 3	SD or BSL, SET, Dn, Sensor output	Cable:	GND	+V	+C	-C	+D	ODYes	+VYes	B Yes	Sh
			Cable:	WH	BN	GN	VE	GY	PK	BU	RD	Sh
Interface	Type of connection	Features	Cable									
6	1, 3	SD or BSL, 2048 Sin/25 Sensor output	Cable:	GND	+V	+C	-C	+D	ODYes	+VYes	B Yes	Sh
			Cable:	WH	BN	GN	VE	GY	PK	BU	RD	Sh
Interface	Type of connection	Features	Cable									
7, 8	1, 3	SD or BSL, 2048 Sin/25 Sensor output	Cable:	GND	+V	+C	-C	+D	A Yes	B	B Yes	PE
			Cable:	WH	BN	GN	VE	GY	PK	BU	RD	Sh

	2008 0101 00022	Label colour	W
+V:	Encoder power supply +V DC		
GND:	Encoder power supply ground (GND (V))		
+C, C:	Clock signal		
+D, D:	Data signal		
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		
PE:	Protective earth		
PS:	Plug connector housing (Shield)		
A, A+:	Incremental output channel A		
B, B+:	Incremental output channel B		





Terminal assignment																
Interface	Type of connector	Features	Cable													
1,2	1,3	100 or B055, SET, DIR, Status	Signal	GND	+V	+C	-C	+D	-D	SET	DIR	Status	PE			
			Cable colour	WH	BN	GN	YE	GY	PK	BU	RD					
1,2	5	100 or B055, SET, DIR	Signal	M12 connector												
			Signal	GND	+V	+C	-C	+D	-D	SET	DIR	Status/PE				
M12 connector			1	2	3	4	5	6	7	8						
3,4	1,3	100 or B055, SET, DIR, 2048 SinCos	Signal	GND	+V	+C	-C	+D	-D	SET	DIR	A	B	PE		
			Cable colour	WH	BN	GN	YE	GY	PK	BU	RD	A	B	PE	Status	
5	1,3	100 or B055, SET, DIR, Sensor outputs	Signal	GND	+V	+C	-C	+D	-D	SET	DIR	ONHTR	+VDIR	PE		
			Cable colour	WH	BN	GN	YE	GY	PK	BU	RD	RD	RD			
6	1,3	100 or B055, 2048 SinCos, Sensor outputs	Signal	GND	+V	+C	-C	+D	-D	ONHTR	DIR	A	B	PE		
			Cable colour	WH	BN	GN	YE	GY	PK	BU	RD	RD	RD	A	B	PE
7,8	1,3	100 or B055, 2048 SinCos, RS422	Signal	GND	+V	+C	-C	+D	-D	ONHTR	DIR	A	B	PE		
			Cable colour	WH	BN	GN	YE	GY	PK	BU	RD	RD	RD	A	B	PE

+V Encoder power supply +VDC

GND Encoder power supply ground GND (0V)

+C Clock signal

-C Data signal

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.

Status Status output

PE Protective earth

PK Plug connector housing (Shield)

A A Incremental output channel A

B B Incremental output channel B

Top view of mating side, male contact base

8

2

1

7

6

5

4

3

M12 connector, 8 pin