

**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	e
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
d Type of connection		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		
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
<p>*) 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)</p>						
<p><i>Optional on request</i> - surface protection - salt spray tested - other resolutions</p>						

**Order code
Hollow shaft**

8.F3673 . **XXXXX** . **XX12**
Type

a Flange

- 1 = with spring element, short, IP65
- 3 = with spring element, long, IP65
- 2 = with stator coupling, IP65, ø 46 mm [1.81"]**

b Through hollow shaft

- 1 = ø 6 mm [0.24"]
- 3 = ø 8 mm [0.32"]
- 2 = ø 1/4"
- Blind hollow shaft
(insertion depth max. 14.5 mm [0.57"])*
- 4 = ø 10 mm [0.39"]**

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.F3673.242FG312.0030 (for cable length 3 m)

e Code

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

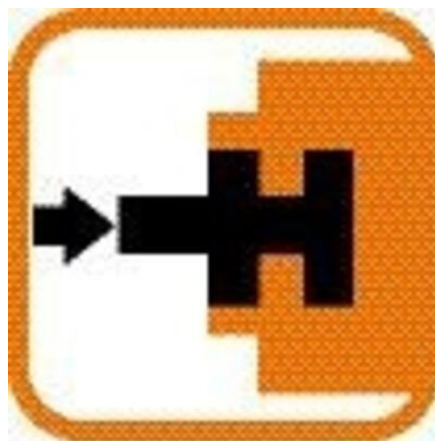
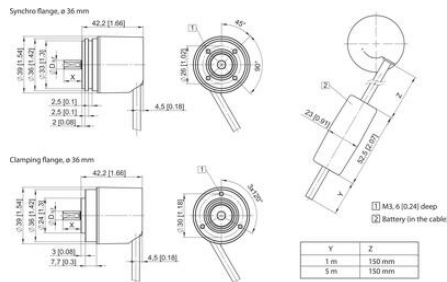
f Resolution

- 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

Specifications

Housing diameter	36
IP Class	IP65, IP67
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



Terminal assignment

Interface	Type of connector	Features	Cable
1,2	1,3	SSI or BiSS, SET DIR, Status	Signal: GND -V+ -C- C- +D- D- SET DIR Stat PE Cable colour: WH BN GN YE GF PK BU RD BK VT Cr/PN RD/BU Shield
1,2	5	SSI or BiSS, SET DIR	M12 connector Signal: GND -V+ -C- C- +D- D- SET DIR Cable colour: WH BN GN YE GF PK BU RD BK VT Cr/PN RD/BU Shield
3,4	1,3	SSI or BiSS, SET DIR, 2048 SinCos	M12 connector Signal: GND -V+ -C- C- +D- D- SET DIR A A-inc B B-inc PE Cable colour: WH BN GN YE GF PK BU RD BK VT Cr/PN RD/BU Shield
5	1,3	SSI or BiSS, SET DIR, Sensor outputs	M12 connector Signal: GND -V+ -C- C- +D- D- SET DIR GND _{inc} -V _{inc} PE Cable colour: WH BN GN YE GF PK BU RD BK VT Cr/PN RD/BU Shield
8	1,3	2048 SinCos	M12 connector Signal: GND -V+ -C- C- +D- D- GND _{inc} -V _{inc} A A-inc B B-inc PE Cable colour: WH BN GN YE GF PK BU RD BK VT Cr/PN RD/BU Shield
X,8	1,3	SSI or BiSS, 2048 incr. RS422	Cable Signal: GND -V+ -C- C- +D- D- A A-inc B B-inc PE Cable colour: WH BN GN YE GF PK BU RD BK VT Cr/PN RD/BU Shield

-V+ Encoder power supply +V DC
GND Encoder power supply ground (GND (W))
-C- Clock signal
+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 (decreased) when the shaft is turning clockwise.
Stat Status output
PE Protective earth
Pin Plug connector housing shield
A, A-inc Incremental output channel A
B, B-inc Incremental output channel B

Top view of mating side, male contact base



M12 connector, 8-pin