

# KUEBLER - ABSOLUTE CODED ANGULAR TRANSMITTER SENDIX F3663 / F3683, OPTICAL, SSI, Ø36 MM SERIE F3663

- Housing diameter Ø36 mm
- SSI / BiSS - interface
- Safety-Lock™
- Up to 17 + 24 bit resolution



## Product description

Sendix F3663 / F3683 is a series of multivalved optical axial outputs with SSI interface and a resolution of up to 17 + 24 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 F3663 / F3683 is also available in a salt water resistant version.

Please refer to the images below for ordering information.

Order code	8.F3663 . XXXX . XXX2									
Shaft version	Type	a	b	c	d	e	f	g		
<b>a</b> Flange		<b>c</b> Interface / power supply				<b>e</b> Code		Optional on request		
1 = clamping flange, IP67, ø 36 mm [1.42"]		1 = SSI, BiSS / 5 V DC				B = SSI, binary		- surface protection		
3 = clamping flange, IP65, ø 36 mm [1.42"]		<b>2</b> = SSI, BiSS / 10 ... 30 V DC				C = BiSS, binary		- salt spray tested		
2 = synchro flange, IP67, ø 36 mm [1.42"]		3 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC				<b>G</b> = SSI, gray		- other singleturn resolutions		
<b>4</b> = synchro flange, IP65, ø 36 mm [1.42"]		4 = SSI, BiSS + 2048 ppr. SinCos / 10 ... 30 V DC				<b>f</b> Resolution (singleturn)				
		5 = SSI, BiSS / 5 V DC, with sensor output				B = 9 bit ST				
		6 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC, with sensor output				A = 10 bit ST				
		7 = SSI, BiSS + 2048 ppr. RS422 / 5 V DC				2 = 12 bit ST				
		8 = SSI, BiSS + 2048 ppr. RS422 / 10 ... 30 V DC				<b>3</b> = 13 bit ST				
						4 = 14 bit ST				
						7 = 17 bit ST				
<b>b</b> Shaft (ø x L), with flat		<b>d</b> Type of connection				<b>g</b> Resolution (multiturn)				
1 = ø 6 x 12.5 mm [0.24 x 0.49"]		<b>1</b> = tangential cable, 1 m [3.28'] PUR				<b>2</b> = 12 bit MT				
<b>3</b> = ø 8 x 15 mm [0.32 x 0.59"]		3 = tangential cable, 5 m [16.40'] PUR				6 = 16 bit MT				
5 = ø 10 x 20 mm [0.39 x 0.79"]		U = tangential cable, 10 m [32.81'] PUR				4 = 24 bit MT				
2 = ø 1/4" x 12.5 mm [0.49"]		5 = tangential cable, 1 m [3.28'] PUR								
4 = ø 3/8" x 5/8"		with M12 connector for central fastening, 8-pin <sup>1)</sup>								

**Order code**  
**Hollow shaft**

**8.F3683** . **XXXXX** . **XXX2**  
Type      a b c d e f g

**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
- U = tangential cable, 10 m [32.81'] PUR
- 5 = tangential cable, 1 m [3.28'] PUR with M12 connector for central fastening, 8-pin <sup>1)</sup>

**e Code**

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

*Optional on request*

- surface protection
- salt spray tested
- other singleturn resolutions

**f Resolution (singleturn)**

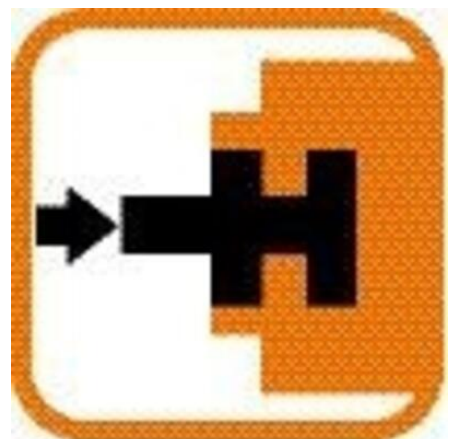
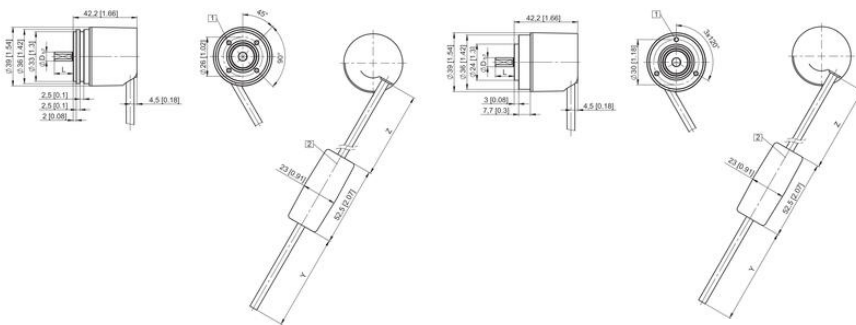
- B = 9 bit ST
- A = 10 bit ST
- 2 = 12 bit ST
- 3 = 13 bit ST**
- 4 = 14 bit ST
- 7 = 17 bit ST

**g Resolution (multiturn)**

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

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



Interface	Type of connection	Features	Cable
1,2	L,3	SSI or RS5, 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 CY/PK RD-BU Shield
1,2	R	SSI or RS5, SET, DIR	M12 connector Signal: GND +V +C -C +D -D SET DIR Stat/PE M12 connector: 1 2 3 4 5 6 7 8 PE
3,4	L,3	SSI or RS5, SET, DIR, 2048 SinCos	Cable 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 CY/PK RD-BU Shield
5	L,3	SSI or RS5, SET, DIR, Sensor outputs	Cable Signal: GND +V +C -C +D -D SET DIR GND <sub>ext</sub> +V <sub>ext</sub> PE Cable colour: WH BN GN YE GF PK BU RD BK VT RD-BU Shield
6	L,3	SSI or RS5, 2048 SinCos	Cable Signal: GND +V +C -C +D -D GND <sub>ext</sub> +V <sub>ext</sub> A A inc B B inc PE Cable colour: WH BN GN YE GF PK BU RD BK VT CY/PK RD-BU Shield
7,8	L,3	SSI or RS5, 2048 Inc1, RS422	Cable Signal: GND +V +C -C +D -D A A inc B B inc PE Cable colour: WH BN GN YE GF PK BK VT CY/PK RD-BU Shield

- +V Encoder power supply +V DC
- GND Encoder power supply ground GND (DN)
- +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 (decreases) when the shaft is turning clockwise.
- Stat Status output
- PE Protective earth
- PK Plug connection housing (Shield)
- A, A inc Incremental output channel A
- B, B inc Incremental output channel B

Top view of mating side, male contact base:

