

# 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.

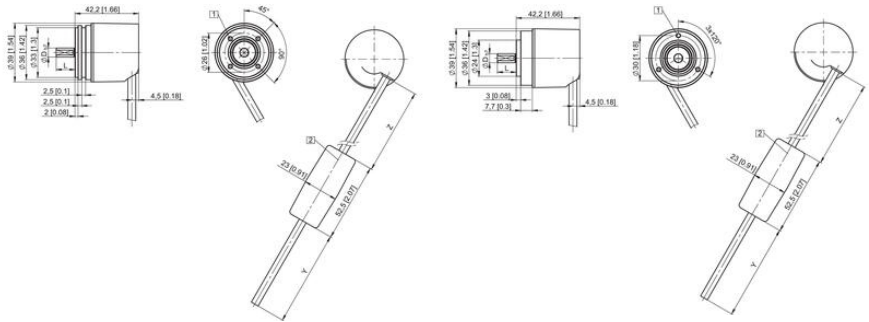
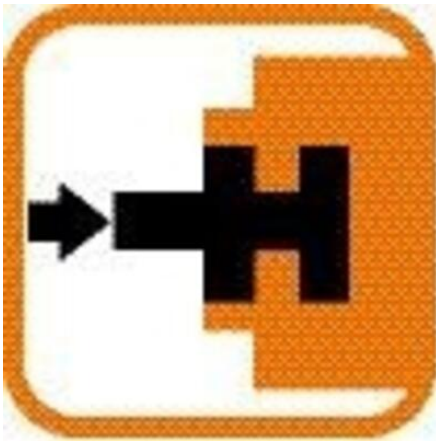
Please refer to the images below for ordering information.

Order code	8.F3663	.XXXX	.XXXX2
Shaft version	Type	a b c d	e f g
<b>a Flange</b>	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>c Interface / power supply</b> 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	<b>e Code</b> B = SSI, binary C = BiSS, binary G = SSI, gray  <b>f Resolution (singleturn)</b> B = 9 bit ST A = 10 bit ST 2 = 12 bit ST 3 = 13 bit ST 4 = 14 bit ST 7 = 17 bit ST  <b>g Resolution (multiturn)</b> 2 = 12 bit MT 6 = 16 bit MT 4 = 24 bit MT
<b>b Shaft (ø x L), with flat</b>	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"	<b>d Type of connection</b> 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>	<b>Optional on request</b> - surface protection salt spray tested - other singleturn resolutions

Order code	8.F3683	.XXXX	.XXXX2
Hollow shaft	Type	a b c d	e f g
<b>a Flange</b>	1 = with spring element, short, IP65 3 = with spring element, long, IP65 2 = with stator coupling, IP65, ø 46 mm [1.81"]	<b>c Interface / power supply</b> 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	<b>e Code</b> B = SSI, binary C = BiSS, binary G = SSI, gray  <b>f Resolution (singleturn)</b> B = 9 bit ST A = 10 bit ST 2 = 12 bit ST 3 = 13 bit ST 4 = 14 bit ST 7 = 17 bit ST  <b>g Resolution (multiturn)</b> 2 = 12 bit MT 6 = 16 bit MT 4 = 24 bit MT
<b>b Through hollow shaft</b>	1 = ø 6 mm [0.24"] 3 = ø 8 mm [0.32"] 2 = ø 1/4" <b>Blind hollow shaft</b> (insertion depth max. 14.5 mm [0.57"])	<b>d Type of connection</b> 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>	<b>Optional on request</b> - surface protection salt spray tested - other singleturn resolutions
<b>4 = ø 10 mm [0.39"]</b>			

# SPECIFICATIONS

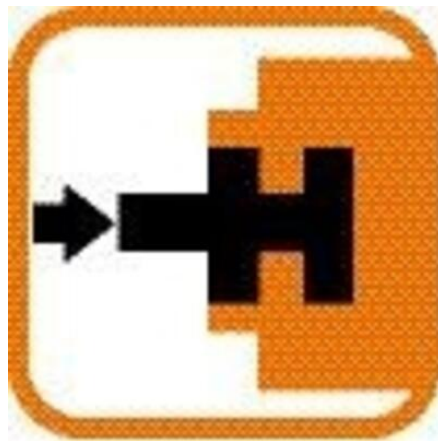
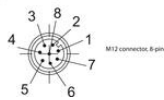
Housing diameter	36
IP Class	IP65, IP67
Shaft Diameter max	10
Shaft Diameter min	6
Supply Voltage DC Max	30
Supply Voltage DC Min	5
Temperature range from	-40
Temperature range to	90



Interface	Type of 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 CP/PK RD-BU Shield
1,2	8	SSI or BiSS, SET, DIR	Signal: GND -V+ -C -C+ -D -D+ SET DIR Shield/PE M12 connector: 1 2 3 4 5 6 7 8 PH
3,4	1,3	SSI or BiSS, SET, DIR, 2048 SinCos	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 CP/PK RD-BU Shield
5	1,3	SSI or BiSS, SET, DIR, Sensor outputs	Signal: GND -V+ -C -C+ -D -D+ SET DIR GND <sub>stat</sub> -V <sub>stat</sub> PE Cable colour: WH BN GN YE GF PK BU RD BK VT RD-BU Shield
6	1,3	2048 SinCos, Sensor outputs	Signal: GND -V+ -C -C+ -D -D+ GND <sub>stat</sub> -V <sub>stat</sub> PE Cable colour: WH BN GN YE GF PK BU RD BK VT CP/PK RD-BU Shield
7,8	1,3	SSI or BiSS, 2048 Inc, RS422	Signal: GND -V+ -C -C+ -D -D+ A A inc B B inc PE Cable colour: WH BN GN YE GF PK BK VT CP/PK RD-BU Shield

-V+ Encoder power supply +V DC  
 GND Encoder power supply ground GND (0V)  
 -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  
 PH 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:



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 CP/PK RD-BU Shield
1,2	8	SSI or BiSS, SET, DIR	Signal: GND -V+ -C -C+ -D -D+ SET DIR Shield/PE M12 connector: 1 2 3 4 5 6 7 8 PH
3,4	1,3	SSI or BiSS, SET, DIR, 2048 SinCos	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 CP/PK RD-BU Shield
5	1,3	SSI or BiSS, SET, DIR, Sensor outputs	Signal: GND -V+ -C -C+ -D -D+ SET DIR GND <sub>stat</sub> -V <sub>stat</sub> PE Cable colour: WH BN GN YE GF PK BU RD BK VT RD-BU Shield
6	1,3	2048 SinCos, Sensor outputs	Signal: GND -V+ -C -C+ -D -D+ GND <sub>stat</sub> -V <sub>stat</sub> PE Cable colour: WH BN GN YE GF PK BU RD BK VT CP/PK RD-BU Shield
7,8	1,3	SSI or BiSS, 2048 Inc, RS422	Signal: GND -V+ -C -C+ -D -D+ A A inc B B inc PE Cable colour: WH BN GN YE GF PK BK VT CP/PK RD-BU Shield

-V+ Encoder power supply +V DC  
 GND Encoder power supply ground GND (0V)  
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Top view of mating side, male contact base:

