

## SENDIX F3663/3683, OPTYCZNY, WIELOBROTOWY, SSI, Ø36 MM

Enkodery wielobrotowe absolutne optyczne

SERIE F3663



- Średnica zewnętrzna: Ø 36 mm
- Maks. średnica wałka: Ø 10 mm. Maks. średnica otworu: Ø 10 mm
- Maks. rozdzielczość: 17 bitów ST + 24 bitów MT
- SSI, BiSS, + 2048 ppr SinCos, + 2048 ppr RS422
- Safety-Lock™

### OPIS PRODUKTU

Enkodery absolutne wielobrotowe serii Sendix F36 Kubler z opatentowaną Technologią Inteligentnego Pomiaru (Intelligent Scan Technology™) oraz interfejsem SSI lub BiSS są wyjątkowo wytrzymałe i kompaktowe.

Przy rozmiarze zaledwie 36 x 42 mm dostępne są wersje z wałem 10 mm, z otworem przelotowym do 8 mm, a przy otworze nieprzelotowym do 10 mm. Wysoka precyzja wykonania umożliwia uzyskanie rozdzielczości do 17 bitów ST oraz 24 bitów MT.

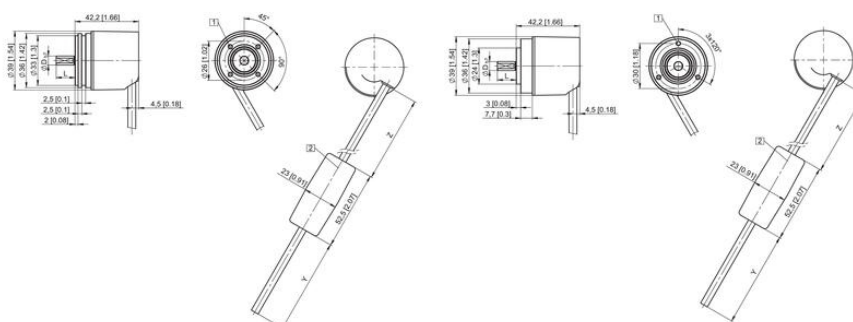
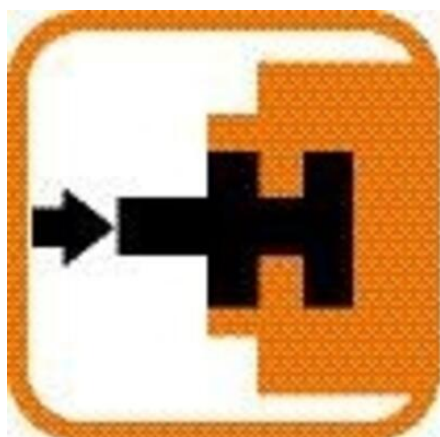
W celu określenia numeru katalogowego proszę o zapoznanie się z poniższymi informacjami.

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

|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                              |                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Order code</b><br><b>Hollow shaft</b>                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>8.F3683</b><br>Type                                                                                                                       | <b>.XXXX.XXX2</b><br>a b c d e f g                                                                        |
| <b>a</b> Flange<br>1 = with spring element, short, IP65<br>3 = with spring element, long, IP65<br><b>2 = with stator coupling, IP65, ø 46 mm [1.81"]</b>                                     | <b>c</b> Interface / power supply<br>1 = SSI, BiSS / 5 V DC<br><b>2 = SSI, BiSS / 10 ... 30 V DC</b><br>3 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC<br>4 = SSI, BiSS + 2048 ppr. SinCos / 10 ... 30 V DC<br>5 = SSI, BiSS / 5 V DC, with sensor output<br>6 = SSI, BiSS + 2048 ppr. SinCos / 5 V DC, with sensor output<br>7 = SSI, BiSS + 2048 ppr. RS422 / 5 V DC<br>8 = SSI, BiSS + 2048 ppr. RS422 / 10 ... 30 V DC | <b>e</b> Code<br>B = SSI, binary<br>C = BiSS, binary<br><b>G = SSI, gray</b>                                                                 | <b>Optional on request</b><br>- surface protection<br>salt spray tested<br>- other singleturn resolutions |
| <b>b</b> Through hollow shaft<br>1 = ø 6 mm [0.24"]<br>3 = ø 8 mm [0.32"]<br>2 = ø 1/4"<br><i>Blind hollow shaft</i><br>(insertion depth max. 14.5 mm [0.57"])<br><b>4 = ø 10 mm [0.39"]</b> | <b>d</b> Type of connection<br><b>1 = tangential cable, 1 m [3.28'] PUR</b><br>3 = tangential cable, 5 m [16.40'] PUR<br>U = tangential cable, 10 m [32.81'] PUR<br>5 = tangential cable, 1 m [3.28'] PUR<br>with M12 connector for central fastening, 8-pin <sup>1)</sup>                                                                                                                                            | <b>f</b> Resolution (singleturn)<br>B = 9 bit ST<br>A = 10 bit ST<br>2 = 12 bit ST<br><b>3 = 13 bit ST</b><br>4 = 14 bit ST<br>7 = 17 bit ST |                                                                                                           |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>g</b> Resolution (multiturn)<br><b>2 = 12 bit MT</b><br>6 = 16 bit MT<br>4 = 24 bit MT                                                    |                                                                                                           |

## SPECYFIKACJA TECHNICZNA

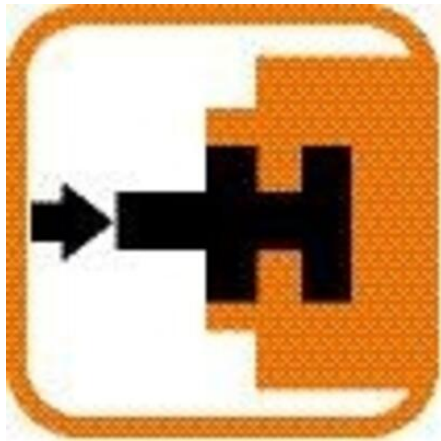
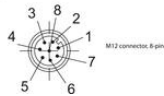
|                            |              |
|----------------------------|--------------|
| Max. temperatura pracy     | 90 °C        |
| Min. temperatura pracy     | -40 °C       |
| Montaż                     | Wał          |
| Napięcie zasilania DC max. | 30 V DC      |
| Napięcie zasilania DC min. | 5 V DC       |
| Podłączenie                | Kabel        |
| Średnica obudowy           | 36 mm        |
| Średnica wału max          | 10 mm        |
| Średnica wału min          | 6 mm         |
| Stopień ochrony IP         | IP65, IP67   |
| Typ czujnika               | Absolutny    |
| Wersja                     | Wielobrotowy |
| Wyjście                    | SSI          |



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

+V: Encoder power supply +V DC  
GND: Encoder power supply ground (GND)  
+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 (decrement) when the shaft is turning clockwise.  
Stat: Status output  
PE: Protective earth  
PH: Plug connector housing (Shield)  
A, B inc: Incremental output channel A  
B, B inc: Incremental output channel B

Top view of mating side, male contact base:



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

+V: Encoder power supply +V DC  
GND: Encoder power supply ground (GND)  
+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 (decrement) when the shaft is turning clockwise.  
Stat: Status output  
PE: Protective earth  
PH: Plug connector housing (Sheld)  
A, B inc: Incremental output channel A  
B, B inc: Incremental output channel B

Top view of mating side, male contact base:

