# KUEBLER - INCREMENTAL ENCODER SENDIX 5000/5020

SERIE 5000

- House diameter Ø50.8 mm
- Cast housing
- M12 / M23- / cable connection
- Temperature range -40 to +85 ° C

## Product description

Sendix 5000/5020 is a robust incremental shaft sensor suitable for industrial applications replacing the previous 58 series. The sensor is with its molded house more protected against impacts and blows than previous models. With the Safety-Lock ™ design, the bearings in the angle sensor have been placed with a larger line spacing and a special locking latch that prevents stock displacement in any direction. The sensor is normally stocked with a clamp flange to fit a wide range of accessories to facilitate assembly and to obtain a reliable mechanical design. The sensor's housing has a diameter of 50.8 mm. However, flanges are available to fit where previous 58-series sensors have been sitting.

Please refer to the images below for ordering information.

## Order code
## Shaft version

| 8.5000 | . | X | X | X | X | . | XXXX |
|---|---|---|---|---|---|---|---|
| Type | | a | b | c | d | | e |

**a** *Flange*

| | |
|---|---|
| 5 = synchro flange, IP66/IP67 | ø 50.8 mm [2"] |
| 6 = synchro flange, IP65 | ø 50.8 mm [2"] |
| **7 = clamping flange, IP66/IP67** | **ø 58 mm [2.28"]** |
| **8 = clamping flange, IP65** | **ø 58 mm [2.28"]** |
| **A = synchro flange, IP66/IP67** | **ø 58 mm [2.28"]** [1] |
| **B = synchro flange, IP65** | **ø 58 mm [2.28"]** [1] |
| C = square flange, IP66/IP67 | □63.5 mm [2.5"] |
| D = square flange, IP65 | □63.5 mm [2.5"] |
| G = Euroflansch, IP66/IP67 | ø 115 mm [4.53"] [2] |
| 1 = servo flange, IP66/IP67 | ø 50.8 mm [2"] [3] |
| 2 = servo flange, IP65 | ø 50.8 mm [2"] [3] |
| 3 = square flange, IP66/IP67 | □52.3 mm [2.06"] [3] |
| 4 = square flange, IP65 | □52.3 mm [2.06"] [3] |
| E = servo flange, IP66/IP67 | ø 63.5 mm [2.5"] [3] |
| F = servo flange, IP65 | ø 63.5 mm [2.5"] [3] |

**b** *Shaft (ø x L), with flat*

**1 = ø 6 x 10 mm [0.24 x 0.39"]**
2 = ø 1/4 x 5/8" (6.35 x 15.875 mm)
6 = ø 8 x 15 mm [0.32 x 0.59"]
**3 = ø 10 x 20 mm [0.39 x 0.79"]**
4 = ø 3/8 x 5/8"(9.5 x 15.875 mm)
B = ø 11 x 33 mm [0.43 x 1.30"], with feather key shaft slot [4]
5 = ø 12 x 20 mm [0.47 x 0.79"]
7 = ø 1/4 x 7/8" [3]
8 = ø 3/8 x 7/8" [3]

**c** *Output circuit / power supply*

**4 = RS422 (with inverted signal) / 5 V DC**
**1 = RS422 (with inverted signal) / 5 ... 30 V DC**
**2 = push-pull (7272 compatible with inverted signal) / 5 ... 30 V DC**
**5 = push-pull (with inverted signal) / 10 ... 30 V DC**
7 = push-pull (without inverted signal) / 10 ... 30 V DC [5]
**3 = open collector (with inverted signal) / 5 ... 30 V DC** [3]
8 = push-pull (7272 with inverted signal), without capacitor / 5 ... 30 V DC [1] [3] [6]

**d** *Type of connection – cable*

**1 = axial cable, 1 m [3.28'] PVC**
A = axial cable, special length PVC *)
**2 = radial cable, 1 m [3.28'] PVC**
B = radial cable, special length PVC *)

*Type of connection – connector*

P = axial M12 connector, 5-pin [7]
R = radial M12 connector, 5-pin [7]
**3 = axial M12 connector, 8-pin**
**4 = radial M12 connector, 8-pin**
**7 = axial M23 connector, 12-pin**
**8 = radial M23 connector, 12-pin**
**Y = radial MIL connector, 10-pin**
**W= radial MIL connector, 7-pin**
9 = radial MIL connector, 6-pin [3]

*Type of connection – connector with cable*

L = radial cable with M12 connector, 8-pin, special length PVC *)
M = radial cable with M23 connector, 12-pin, special length PVC *)
N = radial cable with Sub-D connector, 9-pin, special length PVC *)

*) Available special lengths (connection types A, B, L, M, N:
0.3, 0.5, 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20 m [0.98, 1.64, 3.28, 6.56, 9.84, 13.12, 16.40, 19.69, 26.25, 32.80, 39.37, 49.21, 65.62']
order code expansion .XXXX = length in dm
ex.: 8.5000.814A.1024.0030 (for cable length 3 m)

**e** *Pulse rate*

**1, 2, 4, 5, 10, 12, 14, 20, 25, 28, 30, 32, 36, 50, 60, 64, 80, 100, 120, 125, 150, 180, 200, 240, 250, 256, 300, 342, 360, 375, 400, 500, 512, 600, 625, 720, 800, 900, 1000, 1024, 1200, 1250, 1500, 1800, 2000, 2048, 2500, 3000, 3600, 4000, 4096, 5000**
(e.g. 100 pulses => 0100)

*Optional on request*
- other pulse rates
- Ex 2/22 [8]
- surface protection salt spray

*Salt spray tested as standard type*
*(deliverable as from 1 unit)*

8.5000.73X4.XXXX-C

**Order code Hollow shaft** 8.5020 . X X X X . XXXX (Type; a b c d; e)

**a** *Flange*
**1 = with spring element, long, IP66/IP67**
**2 = with spring element, long, IP65**
**3 = with torque stop, long, IP66/IP67**
**4 = with torque stop, long, IP65**
**7 = with stator coupling, IP66/IP67 ø 65 mm [2.56"]**
**8 = with stator coupling, IP65 ø 65 mm [2.56"]**
**C = with stator coupling, IP66/IP67 ø 63 mm [2.48"]**
**D = with stator coupling, IP65 ø 63 mm [2.48"]**
5 = with stator coupling, IP66/IP67 ø 57.2 mm [2.25"] 1)
6 = with stator coupling, IP65 ø 57.2 mm [2.25"] 1)

**b** *Through hollow shaft*
1 = ø 6 mm [0.24"]
2 = ø 1/4"
**9 = ø 8 mm [0.32"]**
4 = ø 3/8"
**3 = ø 10 mm [0.39"]**
**5 = ø 12 mm [0.47"]**
6 = ø 1/2"
A = ø 14 mm [0.55"]
**8 = ø 15 mm [0.59"]**
7 = ø 5/8"

**c** *Output circuit / power supply*
**4 = RS422 (with inverted signal) / 5 V DC**
**1 = RS422 (with inverted signal) / 5 ... 30 V DC**
**2 = push-pull (7272 compatible with inverted signal) / 5 ... 30 V DC**
**5 = push-pull (with inverted signal) / 10 ... 30 V DC**
7 = push-pull (without inverted signal) / 10 ... 30 V DC 3)
**3 = open collector (with inverted signal) / 5 ... 30 V DC** 1)
8 = push-pull (7272 with inverted signal), without capacitor / 5 ... 30 V DC 1) 2)

**d** *Type of connection – cable*
**1 = radial cable, 1 m [3.28'] PVC**
A = radial cable, special length PVC *)
**E = tangential cable, 1 m [3.28'] PVC**
F = tangential cable, special length PVC *)

*Type of connection – connector*
R = radial M12 connector, 5-pin 4)
**2 = radial M12 connector, 8-pin**
**4 = radial M23 connector, 12-pin**
6 = radial MIL connector, 7-pin
**7 = radial MIL connector, 10-pin**

*Type of connection – connector with cable*
H = tangential cable, 0.3 m [0.98'] PVC, incl. M12 connector, 8-pin for central fastening
L = tangential cable with M12 connector, 8-pin, special length PVC *)
M = tangential cable with M23 connector, 12-pin, special length PVC *)
N = tangential cable with Sub-D connector, 9-pin, special length PVC *)

*) Available special lengths (connection types A, F, L, M, N):
0.3, 0.5, 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20 m [0.98, 1.64, 3.28, 6.56, 9.84, 13.12, 16.40, 19.69, 26.25, 32.80, 39.37, 49.21, 65.62']
order code expansion .XXXX = length in dm
ex.: 8.5020.234A.1024.0030 (for cable length 3 m)

**e** *Pulse rate*
**1, 2, 4, 5, 10, 12, 14, 20, 25, 28, 30, 32, 36, 50, 60, 64, 80, 100, 120, 125, 150, 180, 200, 240, 250, 256, 300, 342, 360, 375, 400, 500, 512, 600, 625, 720, 800, 900, 1000, 1024, 1200, 1250, 1500, 1800, 2000, 2048, 2500, 3000, 3600, 4000, 4096, 5000**
(e.g. 100 pulses => 0100)

*Optional on request*
- other pulse rates
- Ex 2/22 (not for type of connection E, F, H, L, M, N) 5)
- surface protection salt spray

*Salt spray tested as standard type*
*(deliverable as from 1 unit)*
8.5020.18X2.XXXX-C
8.5020.1AX2.XXXX-C

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Specifications

| | |
|---|---|
| **Connection Thread** | Cable, M12, M23 contact |
| **Housing diametre** | 58 |
| **IP Class** | IP65, IP67 |
| **Mounting** | Shoulder |
| **Output** | Push/Pull, RS422 |
| **Pulse Max** | 5000 |
| **Sensor type** | Incremental |
| **Shaft Diameter max** | 12 |
| **Shaft Diameter min** | 4 |
| **Supply Voltage DC Max** | 30 |
| **Supply Voltage DC Min** | 5 |
| **Temperature range from** | -40 |

| | |
|---|---|
| **Temperature range to** | 85 |
| **Version** | Multiturn |