

Quality - made in Germany



RSP02 58 - Profibus DP

Absolute multi-turn encoder

- Shockproof up to 200 g
- Parameterizable operating modes
- Parameterizable preset value
- Parameterizable scaling
- Resolution 25 Bit

Technical data

| | |
|-------------|--------|
| Code | Binary |
| Total count | 25 Bit |
| Steps/turn | 8.192 |
| Turns | 4.096 |

Electrical data

| | |
|-----------------------|--|
| Operating voltage | 10...30 VDC |
| Current consumption | Max. 100 mA (w/o load)) at 24 VDC |
| Code change frequency | Max. 800 kHz |
| Accuracy | 0,025 ° with 400 kHz 0,05° with 800 kHz |

Mechanical data

| | |
|--------------------|---------------------------------------|
| Speed (mechanical) | ≤ 10.000 min ⁻¹ |
| Speed (electrical) | ≤ 6.000 min ⁻¹ |
| Start-up torque | < 0,015 Nm-- |
| Shaft loading | < 40 N radial, < 20 N axial |
| Moment of inertia | 2 x 10 ⁻⁶ kgm ² |

Material

| | |
|-----------|---------------|
| Housing | Steel |
| Flange | Aluminium |
| Bus cover | Aluminium |
| Weight | Approx. 600 g |

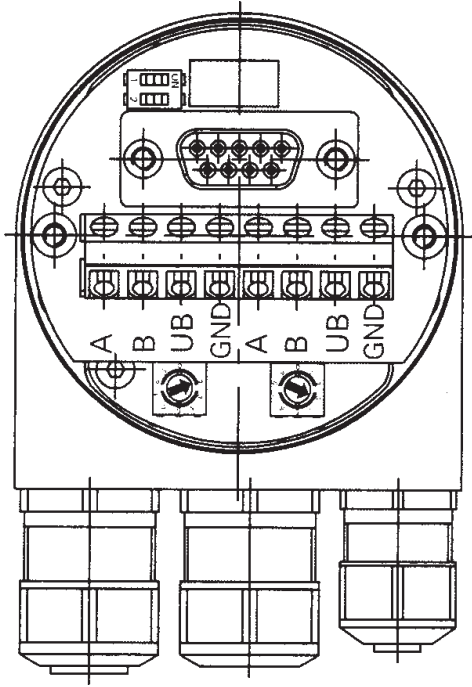
Ambient conditions

| | |
|-------------------------|---|
| Vibration | DIN EN 60068-2-6 ≤ 200 ms ⁻² (16...2000 Hz) |
| Shock | DIN EN 600068-2-27 ≤ 2.000 ms ² , 6 ms |
| Operating temperature | - 20...+ 85° C |
| Humidity | Max. relative humidity 95 % no-condensing |
| Protection type | IP 65 |
| Interference resistance | DIN EN 61000-6-2 |
| Emitted interference | DIN EN 61000-6-4 |

Profibus-DP features

| | |
|----------------------|--|
| Bus protocol | Profibus-DP |
| Profibus features | Device Class 1 and 2 |
| Data exch. functions | Input: Position value Output: Preset value |
| Preset value | With the „Preset“ parameter the encoder can be set to a desired actual value that corresponds to the defined axis position of the system. |
| Parameter functions | Rotating direction With the operating parameter the rotating direction for which the output code is to increase or decrease can be parameterized. |
| Scaling | The steps per revolution and the total revolution can be parameterized. |
| Step | output of speed in T/min |
| Diagnosis | The following is monitored during operation: - Consistency test of code - Exceeding of the permissible signal frequency - LED failure, aging - Receiver failure - Code disk, glass breakage - Power supply of electronic gear unit |
| Default setting | User address 00 |
| Rotating direction | Clockwise (cw) when shaft is viewed from the front (parameterizable) |

View inside Profibus-DP bus cover



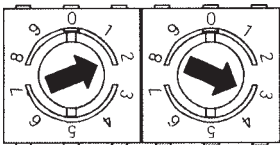
Contact description Profibus-DP

- A Negative serial data line, Pair 1 and Pair 2
- B Positive serial data line, Pair 1 and Pair 2
- UB Supply voltage 10...30 VDC
- GND Ground contact for UB

(Terminals with the same designation are internally interconnected)

Option additional incremental tracks A + B, 5pol. plug, 10...30 VDC, 30 mA.

Settings of user address for Profibus-DP



Address can be set with rotary switch.
Example: User address 23

Settings of terminating resistors for Profibus-DP



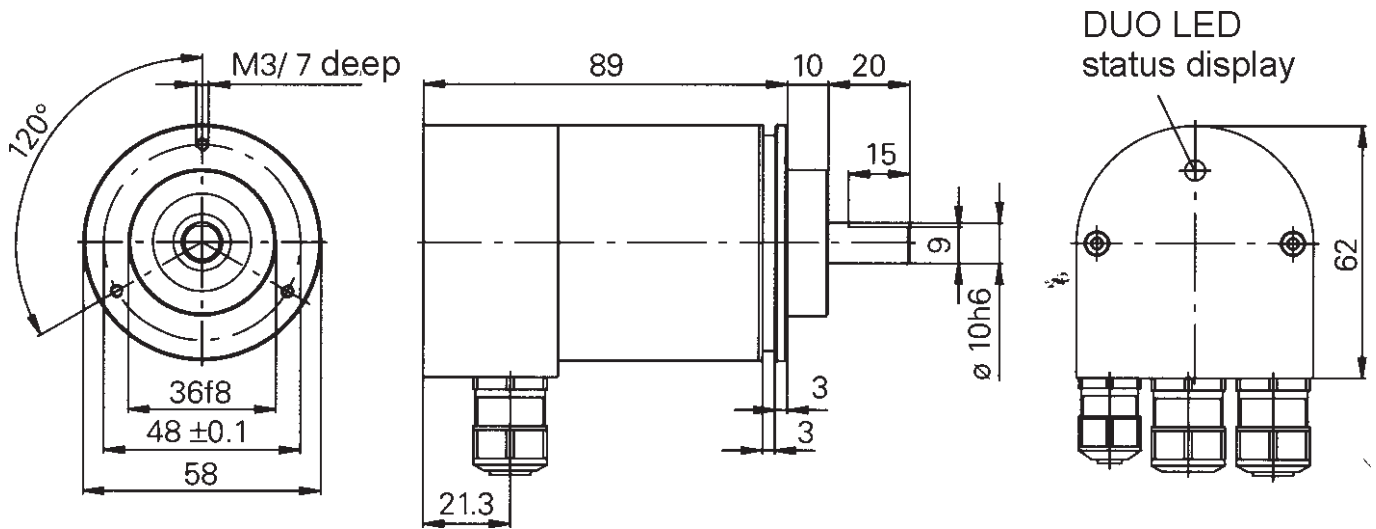
ON = Last user
OFF = User X

Type key of Encoder

| Encoder type | Bit/turns | Turns | Voltage | Code | Flange | Output | Options |
|--------------|-----------|-----------|-----------------|------------|-----------------------------------|-------------------------------------|---|
| RSP02 58 | 13 = 8192 | 12 = 4096 | 3 = 10 - 30 VDC | B = Binary | W1 = 10 mm shaft, clamping flange | DS = Buscover sideways movement out | F1 = 2 x 1024 S/T additional incremental tracks |
| RSP02 58 | | | | | V6 = 6 mm shaft, servo flange | | F2 = 2 x 1024 S/T additional incremental tracks |
| RSP02 58 | 13 | 12 | 3 | B | — | DS | |

Dimensions and cutout RSP 02 58

10 mm shaft, clamping flange



Optional: 6 mm shaft, servo flange

