



RSF 59 P - Profibus DP

Absolute multi-turn encoder

- shockproof up to 200 g
- Parameterizable operating modes
- Parameterizable preset value
- Parameterizable scaling
- Singleturn resolution up to 18 Bit
- Multiturn resolution up to 31 Bit

Technical data

Code	Binary
Max. resolution	Singleturn
	18 Bit = 262.144 S/T
	Multiturn
	31 Bit = 262.144 S/T x 8.192 T

Electrical data

Operating voltage	UB = 10...30 VDC
Current consumption	Max. 120mA (w/o load), at 24VDC
Code change frequency	26 MHz
Accuracy	± 0,01°

Mecanical data

Speed (mecanical)	≤ 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

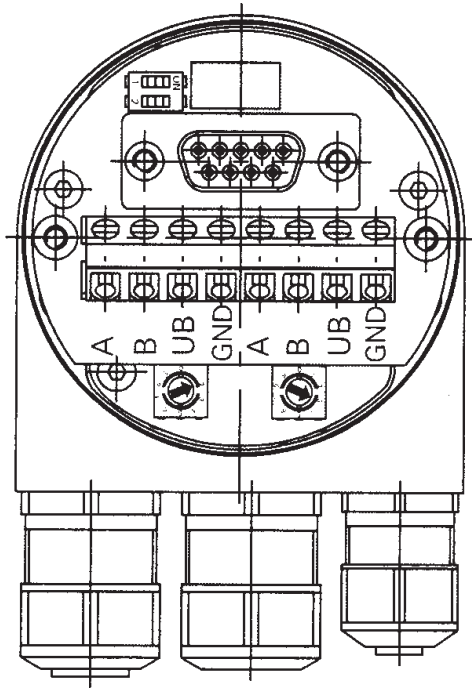
Ambient Conditions

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
Storage 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 characteristics

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 funktions	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 directions	Clockwise (cw) when shaft is viewed from the front (parameterizable)

View inside bus cover

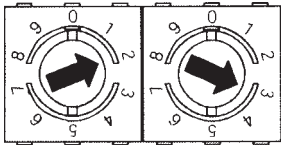


Contact description

- 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)

Settings of user address



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

Settings of terminating resistors



ON = Last user
OFF = User X

Type key of Encoder

Encoder type	Steps / T Turns	Voltage	Code	Flange	Output
RSF 59 P	18 = 18 Bit 264.144 S/T x 1 T	3 = 10 - 30 VDC	B = Binary	W1 = 10 mm shaft clamping flange	DS = Bus cover sideways movement out
RSF 59 P	31 = 26 Bit 262.144 S/T x 8.192 T				
RSF 59 P	—	3	B	W1	DS

Dimension and cutout RSF 59 Profibus

10 mm shaft, clamping flange

