

Quality - made in Germany



## RSH 75 P - 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	UB = 10...30 VDC
Current consumption	Max. 100 mA (w/o load), at 24 VDC
Code change frequency	800 kHz
Accuracy	0,025 ° with 400 kHz 0,05° with 800 kHz

#### Mechanical data RSH 75

Speed (mechanical)	≤ 6.000 min <sup>-1</sup>
Speed (electrical)	≤ 6.000 min <sup>-1</sup>
Start-up torque	< 0,015 Nm
Shaft loading	< 40 N radial, < 20 N axial
Moment of inertia	2 x 10 <sup>-6</sup> kgm <sup>2</sup>
Weight	Approx. 700 g

#### Mechanical data RSH 90

Speed (mechanical)	≤ 3.800 min <sup>-1</sup>
Speed (electrical)	≤ 6.000 min <sup>-1</sup>
Start-up torque	< 0,015 Nm
Shaft loading	< 40 N radial, < 20 N axial
Moment of inertia	200 x 10 <sup>-6</sup> kgm <sup>2</sup>
Weight	Approx. 830 g

#### Mechanical data RSH 120

Speed (mechanical)	≤ 2.000 min <sup>-1</sup> upper on request
Speed (electrical)	≤ 6.000 min <sup>-1</sup>
Start-up torque	< 0,015 Nm
Shaft loading	< 40 N radial, < 20 N axial
Moment of inertia	1100 x 10 <sup>-6</sup> kgm <sup>2</sup>
Weight	Approx. 1.200 g

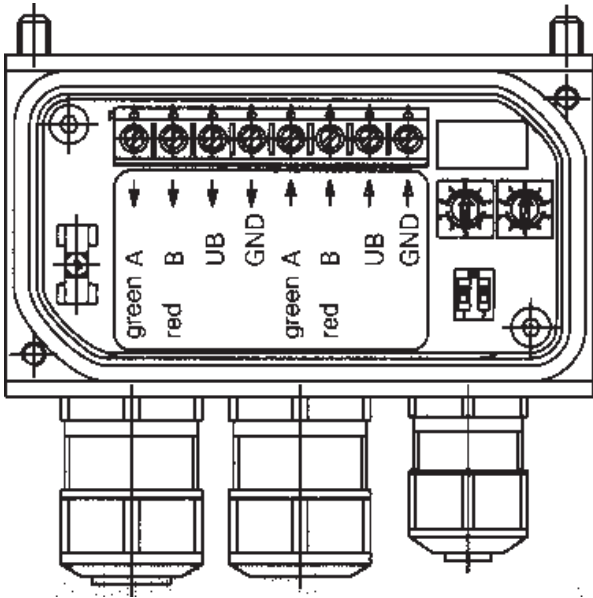
#### Material

Housing	Steel
Flange	Aluminium
Bus cover	Aluminium

#### Ambient conditions

Vibration	DIN EN 60068-2-6 ≤ 200 ms <sup>-2</sup> (16...2000 Hz)
Shock	DIN EN 600068-2-27 ≤ 2.000 ms <sup>-2</sup> , 6 ms
Operating temperature	- 20...+ 85° C
Storage temperature	- 20...+ 85° C
Humidity	Max. relative humidity 95 % no-condensing
Protection type	IP 54
Interference resistance	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4

## View inside 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

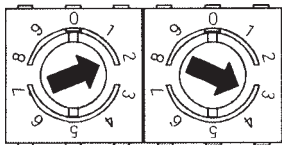
(Terminals with the same designation are internally interconnected)

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

## Profibus-DP features

Bus protocol	Profibus DP
Profibus-Features	Device Class 1 und 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:  <ul style="list-style-type: none"> <li>- Consistency test of code</li> <li>- Exceeding of the permissible signal frequency</li> <li>- LED failure, aging</li> <li>- Receiver failure</li> <li>- Code disk, glass breakage</li> <li>- Power supply of electronic gear unit</li> </ul>
Rotating direction	Clockwise (cw) when shaft is viewed from the front (parameterizable)

## Settings of user address



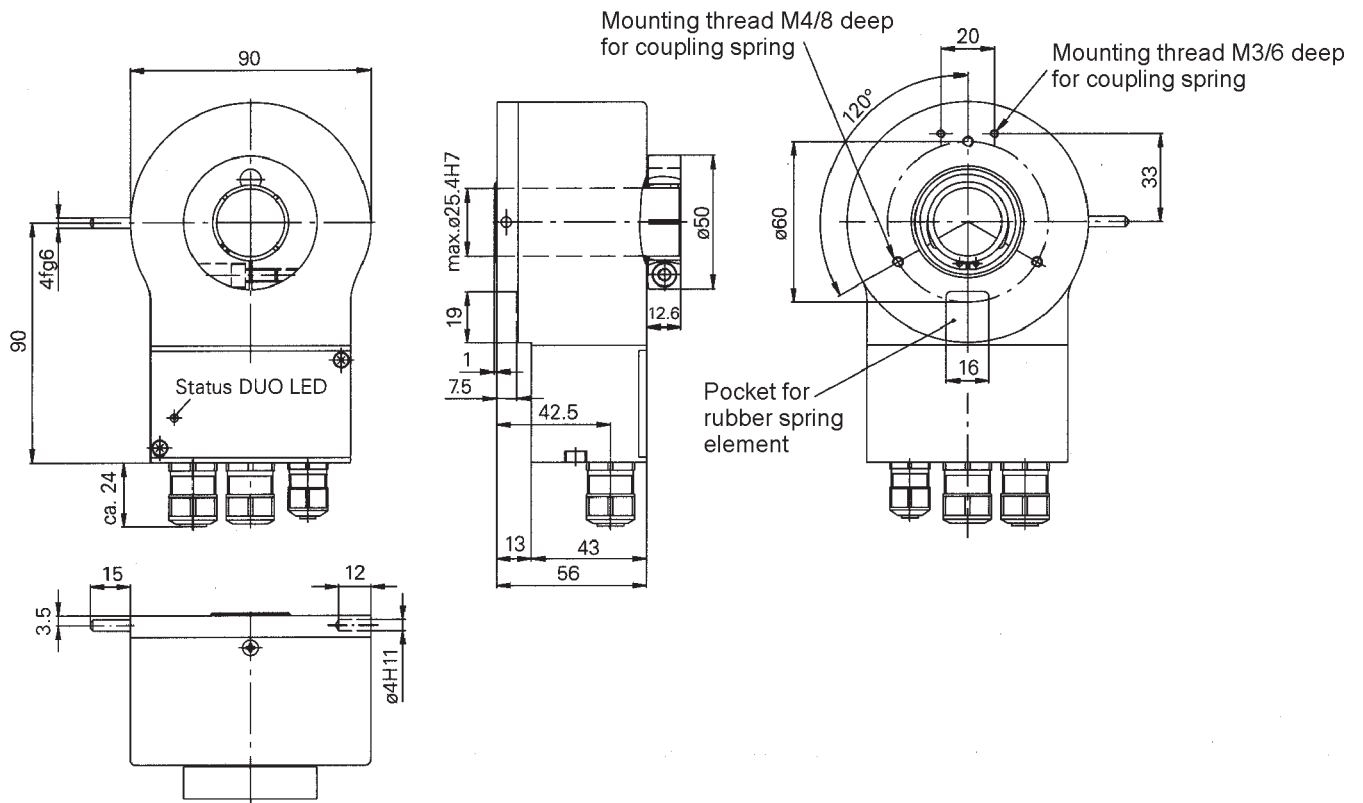
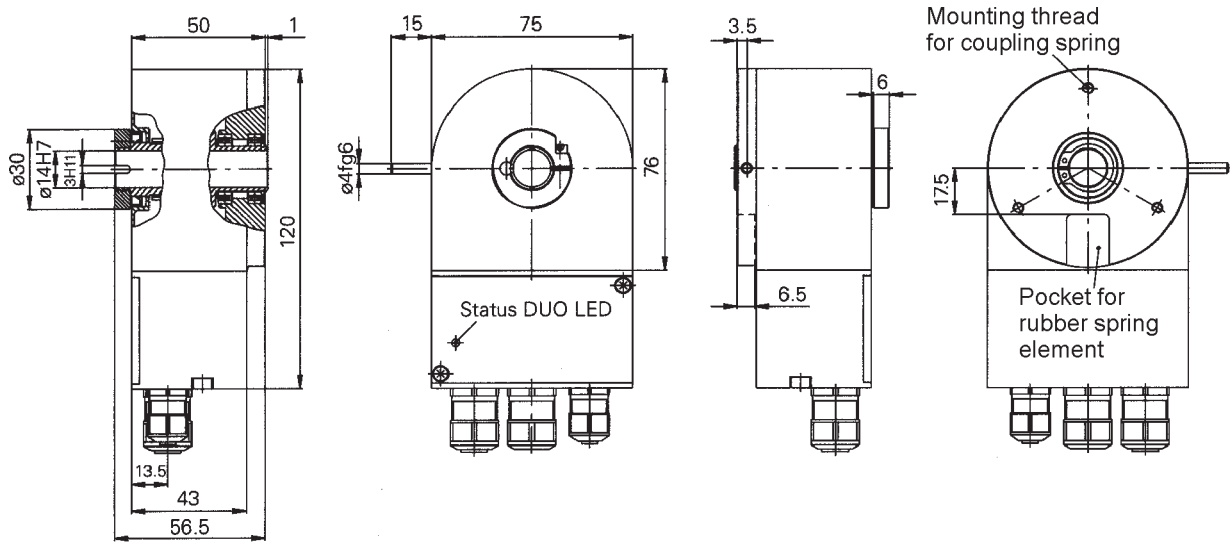
Address can be set with rotary switch.  
Example: User address 23

## Settings of terminating resistors

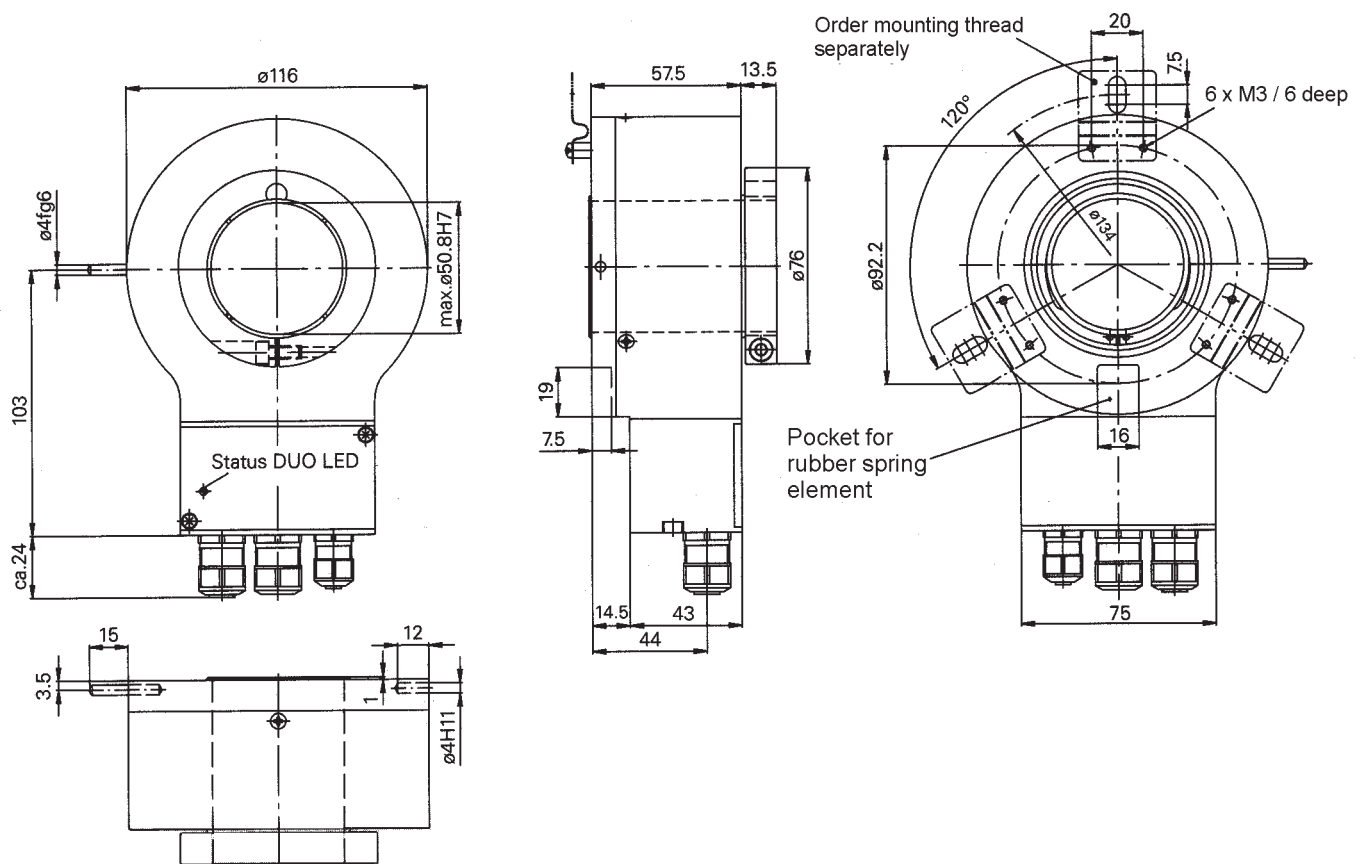


ON = Last user  
OFF = User X

# Dimension and cutout RSH 75 and RSH 90 Profibus



# Dimension and cutout size RSH 120 Profibus



## Type key of Encoder

Encoder Type	Bit/Turnings	Turnings	Code	Voltage	Flange	Output
RSH 75 P		12 = 4096 T	B = Binary	3 = 10 - 30 VDC	1 = $\varnothing$ 14 mm, threaded pin	DS = Bus cover sideways movement out
RSH 75 P	13 = 8192 S/T				2 = $\varnothing$ 12 mm, clamping collar	
RSH 75 P					3 = $\varnothing$ 14 mm, clamping collar	
RSH 90 P					by 25,4mm on request	
RSH 120 P					by 50,8 mm on request	
RSH ___ P	13	12	B	3	___	DS