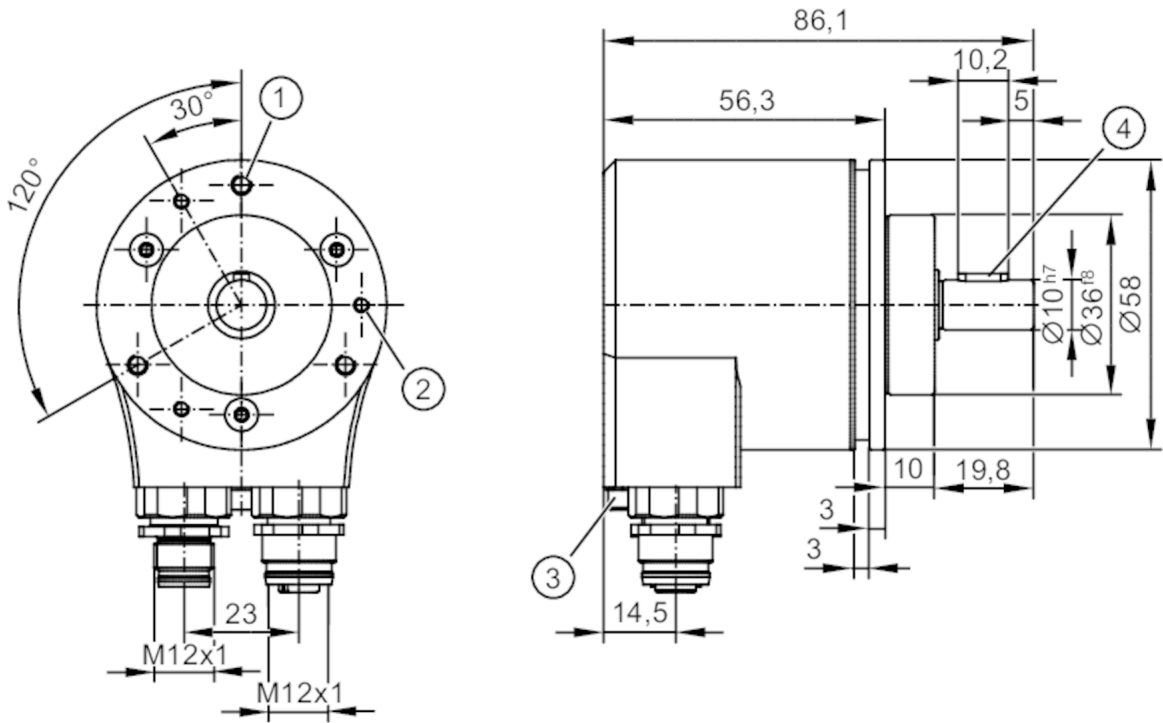


# RM902S



## Absolute multiturn encoder with solid shaft

RMV10SRU51213bCANS



- |   |                               |
|---|-------------------------------|
| 1 | M4                            |
| 2 | M3                            |
| 3 | M4 for potential equalisation |
| 4 | parallel key (DIN6885-3x3x10) |

## Product characteristics

Resolution	8192 steps; 65536 revolutions; 29 bit
Shaft design	solid shaft
Shaft diameter [mm]	10

## Application

Function principle	absolute
Revolution type	multiturn
Detection system	magnetic
Application	mobile applications; cranes and hoist machines
Operating temperature (active) [°C]	-40...85

## Electrical data

Operating voltage	[V]	8...36 DC
Current consumption	[mA]	< 60; ((24 V DC))
Power consumption	[W]	1.5
Protection class		III
Reverse polarity protection		yes
Overvoltage protection		yes; (< 60 V DC)
Power-on delay time	[s]	< 2

## Outputs

Contact rating	max. 1,5 A (24 V DC )
Code	binary



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Measuring/setting range		
Resolution	8192 steps; 65536 revolutions; 29 bit	
Accuracy / deviations		
Accuracy	[°]	non-safety
		0.2
		safety
		0.5
Repeatability	± 0,1 °; (magnetic)	
Response times		
Response time to safety request	[ms]	7
Software / programming		
Parameter setting options	scaling; preset; Baud rate; Node ID; limit switch; gear function; monitoring window; Counting direction; speed parameters; integration time; ifm mode	
Interfaces		
Number of CAN interfaces	2	
Transmission rate	20 kBit/s... 1 MBit/s	
Terminating resistor	yes; (Extern M12 (z.B. E11590))	
CAN		
Protocol	CANopen; CANopen Safety; CAN Spezifikation 2.0 A	
Factory settings	Baud rate: 250 kBit/s	
	node ID: 32	
Version	CiA 406 V4.1.0; CiA 301 V4.2.0; CiA DSP-305 V3.0.0 LSS; EN 50325-4; EN 50325-5; ISO 11898	
Operating conditions		
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...90
Note on storage temperature	dry	
Max. relative air humidity	[%]	98
Max. height above sea level	[m]	5000
Protection	IP 67; IP 69K; (with ifm socket duly screwed on)	
Tests / approvals		
EMC	IEC 61000-4-2 ESD 6	6 kV CD / 15 kV AD
	IEC 61000-4-3 HF radiated	20 V/m (27...1000MHz)
		10 V/m (1000...2000MHz)
		3 V/m (2000...6000MHz)
	IEC 61000-4-4 Burst	4 kV
	IEC 61000-4-5 Surge	2 kV (screen)
	IEC 61000-4-6 HF	20 V
	IEC 55011	class B
	IEC 61000-4-8 magnetic fields	30 A/m (50 Hz) / 1000 A/m (0 Hz) failure criterion A
	Shock resistance	IEC 60068-2-27
Vibration resistance	IEC 60068-2-64	15 g Sinus / 50...2000 Hz
	ISO 19014-3	5.7 g RMS
Salt spray test	IEC 60068-2-52	severity level 5
Standard	compliant with ECE R 10 Rev.6	

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Safety classification	
Complies with the requirements	ISO 13849-1 category 3, PL d
	IEC 61508 SIL 2
	IEC 61800-5-2
	IEC 61800-5-3
Mission time TM [h]	175800
Mission time TM (additional indication)	20 years
PFH [1/h]	2,00E-8
Mechanical data	
Weight [g]	0.001
Dimensions [mm]	Ø 58 / L = 86.1
Materials	sealings: NBR/HNBR; display: polycarbonate; connections: diecast zinc nickel-plated (axial)/(radial)
Max. revolution, mechanical [U/min]	6000
Max. starting torque [Nm]	5
Reference temperature torque [°C]	20
Shaft design	solid shaft
Shaft diameter [mm]	10
Shaft material	stainless steel (303/1.4305)
Max. shaft load axial (at the shaft end) [N]	80
Max. shaft load radial (at the shaft end) [N]	100
Fixing flange	clamping flange; Ø 58 mm
Remarks	
Remarks	material for secure mounting not supplied; fixing must be done by the user
	meets the EMC requirements for use in agricultural and forestry machinery, earthworks and construction machines and industrial trucks
	additional information on max. shaft load: measured 10 mm from the flange
	can be used in applications up to Ag PL d in accordance with ISO 25119, up to MPL d in accordance with ISO 19014-3
Pack quantity	1 pcs.

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### Electrical connection - CAN-in

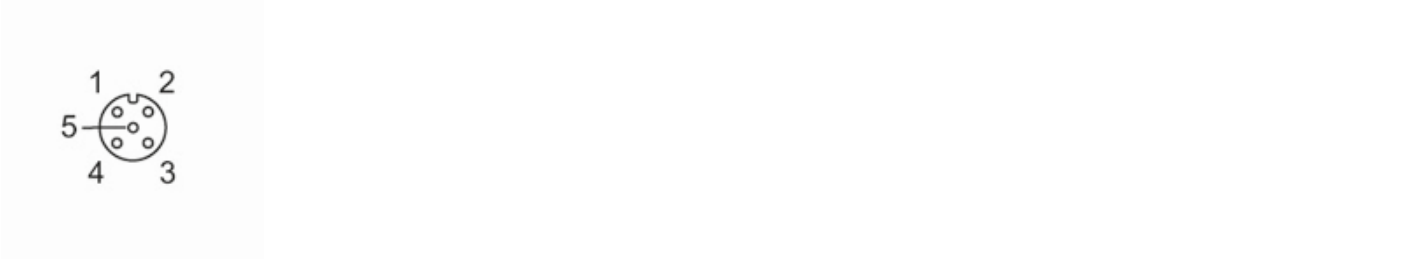
Connector: 1 x M12-A; coding: A; (open M12 connections must be covered with appropriate protective caps)



1	CAN Screen
2	VBB
3	GND
4	CAN_H
5	CAN_L
	PE via housing screw

### Electrical connection - CAN-out

Connector: 1 x M12-A; coding: A; (open M12 connections must be covered with appropriate protective caps)



1	CAN Screen
2	VBB
3	GND
4	CAN_H
5	CAN_L
	PE via housing screw