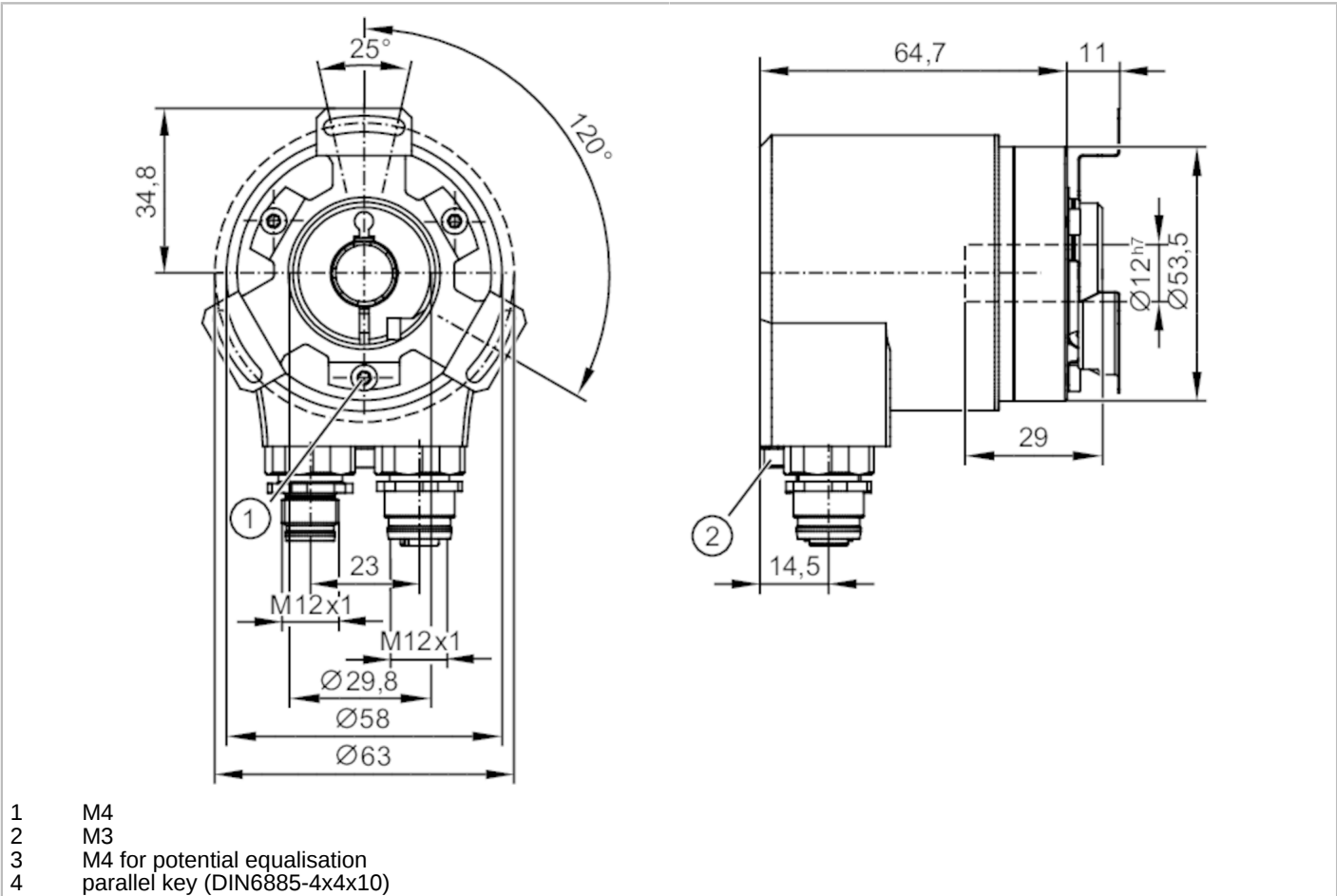


RM903S



Multiturn hollow shaft encoder

RMO12BRU51213bCANS



Product characteristics		
Resolution		8192 steps; 65536 revolutions; 29 bit
Shaft design		blind hole hollow shaft
Shaft diameter	[mm]	12
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)

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Code		binary		
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		100 g 6 ms half-sine; 100 shocks each in every direction of the 3 coordinate axes
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

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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

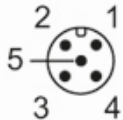
Weight [g]	0.001
Dimensions [mm]	Ø 58 / L = 64.7
Materials	sealings: NBR/HNBR; display: polycarbonate; connections: diecast zinc nickel-plated (axial)/(radial)
Max. revolution, mechanical [U/min]	6000
Max. starting torque [Nm]	5
Reference temperature torque [°C]	20
Shaft design	blind hole hollow shaft
Shaft diameter [mm]	12
Shaft material	stainless steel (303/1.4305)
Fixing flange	direct flange; Ø 63 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
	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.

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

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