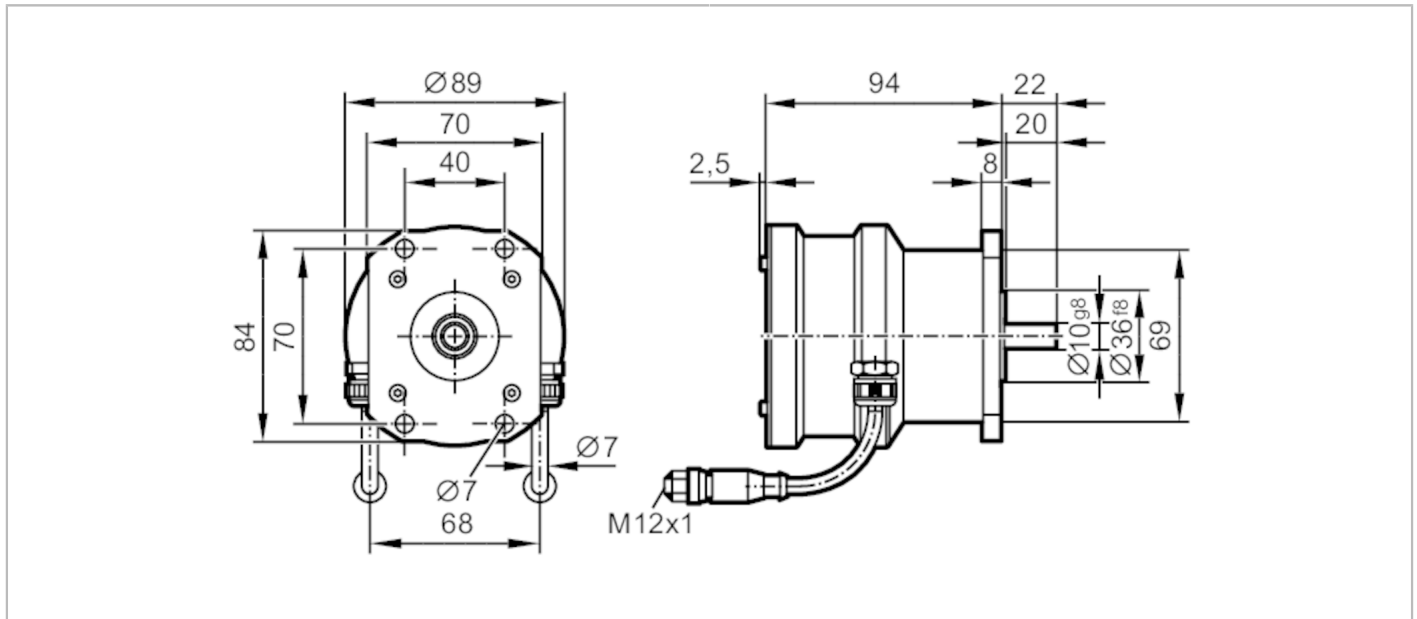


RN6065



Absolute singleturn double shaft encoder

RN-8192-S24/S



Product characteristics	
Resolution	8192 revolutions; 13 bit
Communication interface	SSI data interface
Shaft design	solid shaft
Shaft diameter [mm]	10
Application	
Function principle	absolute
Revolution type	singleturn
Electrical data	
Operating voltage [V]	10...30 DC
Current consumption [mA]	< 100
Inputs	
Inputs	reversal of direction of rotation; reset to zero
Outputs	
Code	Gray code; (increasing code values when turned clockwise (seen on the shaft))
Code signal	Clock input; TTL-compatible signals; clock and clock (inv.) from drivers to RS 422; data output; synchronous serial; TTL-compatible signals, data, and data (inv.)
Measuring/setting range	
Resolution	8192 revolutions; 13 bit
Interfaces	
Communication interface	SSI data interface
Operating conditions	
Ambient temperature [°C]	-40...100
Max. relative air humidity [%]	98
Protection	IP 67

RN6065



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Tests / approvals		
Shock resistance	EN 60068-2-27	< 50 g 6 ms
Vibration resistance	EN 60068-2-6	< 10 g / 55...2000 Hz
MTTF [years]	289	

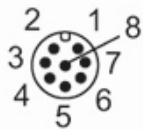
Mechanical data		
Weight [g]	1342.7	
Dimensions [mm]	Ø 89 / L = 116	
Materials	flange: aluminium anodised ; housing: aluminium anodised	
Max. revolution, mechanical [U/min]	6000	
Max. starting torque [Nm]	4	
Reference temperature torque [°C]	25	
Shaft design	solid shaft	
Shaft diameter [mm]	10	
Shaft material	stainless steel (1.4305 / 303)	
Max. shaft load axial (at the shaft end) [N]	40	
Max. shaft load radial (at the shaft end) [N]	110	

Remarks	
Remarks	Wires/pins not connected (n.c.) must not be used.

Electrical connection - SSI 1

Cable: 0.15 m, PUR

Connector: 1 x M12



Connection

- | | |
|---|--|
| 1 | reversal of direction of rotation ccw = permanently active HIGH signal when the shaft stands still |
| 2 | reset to zero connect pins 8 and 2 for 30 seconds for a reset to 0 |
| 3 | data activated: HIGH > 0.7 x L+ deactivated: LOW < 0.3 x L+ |
| 4 | data (inv.) |
| 5 | 0 V |
| 6 | clock (inv.) |
| 7 | clock Monoflop startet mit negativer Flanke |
| 8 | L +
screen housing |

Electrical connection - SSI 2

Cable: 0.15 m, PUR

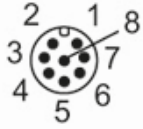
Connector: 1 x M12

RN6065



Absolute singleturn double shaft encoder

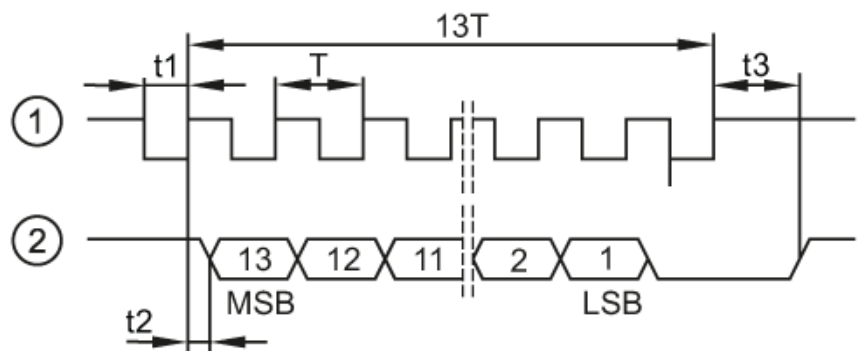
RN-8192-S24/S



1	reversal of direction of rotation ccw = permanently active HIGH signal when the shaft stands still
2	reset to zero connect pins 8 and 2 for 30 seconds for a reset to 0
3	data activated: HIGH > 0.7 x L+ deactivated: LOW < 0.3 x L+
4	data (inv.)
5	0 V
6	clock (inv.)
7	clock Monoflop startet mit negativer Flanke
8	L + screen housing

Other data

Diagrams and graphs



- 1 clock
 - 2 data
- $t1 \leq 0.5 \mu\text{s}$ clock: 1 MHz
 $t2 < 0.4 \mu\text{s}$
 $t3 = 13 \dots 20 \mu\text{s}$
 $T = 1 \dots 10 \mu\text{s}$
13 Bit without parity bit