Features and applications:

- Standard encoder 58mm with Profibus interface
- Rebust and compact design
- Available resolution up to 16 bits
- Power supply from 10 to 30 Vdc
- Widely applied in a variety of industries

Model	RNK(M)58J	RNK(M)58T	RNK(M)58H
Housing diameter	Ø 58mm	Ø 58mm	Ø 58mm
Shaft size	Solid with clamp flange Ø6 / 8 /10 /12 /14 / 15 mm	Solid with synthro flange Ø6 / 8 / 10 mm	Blind hollow shaft Ø6 / 8 / 10 / 12 / 14 / 15 mm
Output signal	Profibus-DP protocol		
Supply voltage	10....30Vdc		
Single-turn resolution	Standard 13 bits 8192, Max. 16 bits 65536		
Rotation turn no.	1 / 4096		
Code	Binary		
Repeat-ability accuracy	±2BIT		
Current consumption	<50 mA(at 24 Vdc) without load		
Max. speed	6000 r/min		
Shaft load	Radial 110N, axial 40N		
Protection class	IP65 or IP66		
Starting torque	≤3 Ncm		
Operating temperature	-40°C....85°C		
Storage temperature	-40°C....100°C		
Shock resistance	1000 m/s^2 , 6 ms（100g）		
Vibration resistance	20g		
Connection type	Three-hole adapter terminal wiring		
Connection position	Radial		

PROGRAMMABLE   PARAMETERS

Profibus-DP interface supports CLASS 1 and CLASS 2 function. Furthermore GSD-file supports more features, like sofware limit switches. Following encoder parameters can be programmed directly via the Profibus-DP net without any extra devices

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Counting Direction	This parameter counting direction defines whether the output code increases or decreases when the shaft roates clockwise
Resolution per Revolution	The parameter 'resolution per revolution' is used to program the desired number of steps per revolution. Each value between 1 and the physical resolution per revolution can be programmed.
Total Resolution	This parameter is used to program the desired number of measuring units over the total measuring This value may not exceed the total physical resolution of the absolute rotary encoder.
Preset value	The preset value is the desired positon value, which should be reached at certain physical position of the axis. The postion value is set to the desired process value by the parameter preset.
Velocity	The implemented software can additionally deliver the current velocity. This value is transmitted in binary code, 16 Bit, in addition to the process value.It is possilble to choose between four different units:steps per 10 ms, per 100ms, per1000 ms and revolutions per minute.
Software limit switches function	software limit switches can be set. If the position value falls below the lower or exceeds the h-igher limit switch, a status bit in the process value is set.
Teach-in (Online param-eterization)	A special mode is available for commissioning phase of the the device.This makes it possible to change parameters while the encoder is in data exchange mode. For continuous operation another mode is available in which the parameters are protected against against unintentional changes.

Installation

Rotary encoder is connected by two or three cables,de-pending on whether the power supply is integrated into the bus cable or connected separately . If the power suppply is integrated into the bus cable one of the cable glands can -be fitted with a plug . The cable glands are suitable for ca-ble diameters from 6.5 up to 9 mm.

Termination resistors are integrated in the connection cap. These must be switched on if the encoder is connected at end or the beginning of bus.

device X   **Last device**
Connecting the data line and the power supply
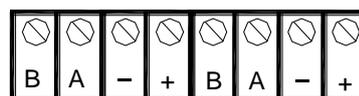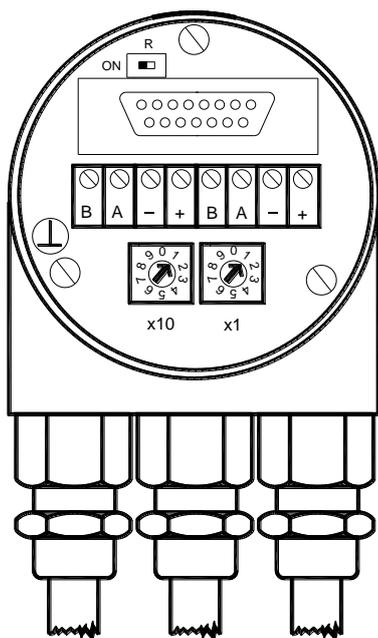
Clamp	Description
B (left)	Bus line B (Bus in)
A (left)	Bus line A (Bus in)
-	0 V
+	10 - 30 V
B (right)	Bus line B (Bus out)
A (right)	Bus line A (Bus out)
-	brown-blue
+	0 V

The power supply has to be connected once (no matter cla-mps). If the terminating resistor is switched on the outgoing bus lines are disconnected.

A GSD-file is necessary for installing the encoder. The GSD-File and the detailed user manual can be downloaded from our homepage.

The connection cap is provided with two LEDs on the back-side , which optically represent the device stauts . This can be very useful installing and setting-up the encoder.

Profibus-DP device address is set by user friendly rotary switches in the connection cap. Alllowed adresses are betw-een 1 and 99, each can only be used only once, The conne-ction cap can easily be opened for installation by removing the two cao screws.

Order Reference:

	1		2	3	4	5	6	7	8	9
	Single-	multi-	XXX	XXX	XX	XXX	X	X	XX	XX
1. Spec. and Series	RNK58J	RNKM58J								
	RNK58T	RNKM58T								
	RNK58H	RNKM58H								

2. Output signal

DP   profibus   DP

3. Number of turn

B01   1   B01

B12   4096   12 bits   B12

4. Resolution per turn

12   12 bit（4096）ST   12

13   13 bit（8192）   13

14   14 bit (16834)   14

16   16 bit（65536）   16

5. Mechanical mounting dimension

For details, refer to the mechanical dimension ordering code of 58series single-& multi

turn absolute encoder

6. Protection class and body material

0   Protection class IP65, Aluminum body   0

S   Protection class IP68, Aluminum body (work underwater available)   S

V   Protection class IP66, Stainless steel heavy-duty body   V

W   Protection class IP68, Stainless steel heavy-duty body (work underwater available)   W

H   Protection class IP66, Aluminum body for low Temp.   H

7. Connection position

R   Radial   R

8. Connection type

H3P   Connection cap   H3P

9. EX explosion-proof

EX explosion-proof encoderEX II 2G Ex ib IIB T4 Gb   EX