DATA SHEET ENCODER V1.0

PNM58

ARTICLE PROPERTIES

TYPE	Absolute multiturn encoder
SIZE	Ø 58

TECHNICAL DATA

SHAFT DIAMETER	58B: Ø 6g6 mm 58C: Ø 10g6 mm	**STARTING TORQUE**	< 0.05 N·m
HOLLOW SHAFT DIAMETER	58W: Ø 8H7 / Ø 10H7 / Ø 12H7 mm	**BODY MATERIAL**	Aluminum
SPEED	6000 rpm	**HOUSING MATERIAL**	Aluminum
BEARING LIFE	10^9 revolution	**FLANGE MATERIAL**	Aluminum
MOMENT OF INERTIA	1.8 x 10^{-6} kgm^2	**WEIGHT**	600 g

ENVIRONMENTAL CONDITIONS

PROTECTION CLASS	IP65	**OPERATING TEMPERATURE**	-40 ... +80 °C
MAX LOAD CAPACITY OF THE SHAFT	40 N axial, 80 N radial	**STORAGE TEMPERATURE**	-45 ... +85 °C
SHOCK RESISTANCE (EN 60068-2-27)	50 g, 11 ms	**RELATIVE HUMIDITY / CONDENSATION**	90%, condensation not permitted
VIBRATION RESISTANCE (EN 60068-2-6)	10 g, 10 ... 2000 Hz		

ELECTRICAL PARAMETERS

INTERFACE	PROFINET IO/RT Class C	**DATA TRANSMISSION RATE**	10/100 Mbit/s
SUPPLY VOLTAGE	10 ... 30 V DC	**ENCODER DEVICE SUB-PROTOCOL**	V4.1 Calss 3
CURRENT CONSUMPTION (WITHOUT LOAD)	200 mA	**MAX. NUMBER OF LAPS**	4096 (12 bits)
MAX. BUS RATE	100 Mbits/s	**MAX. RESOLUTION**	8192 (13 bits)
MAXIMUM BUS RATE	12 bits±1/2 LSB		

ELECTRICAL CONNECTION

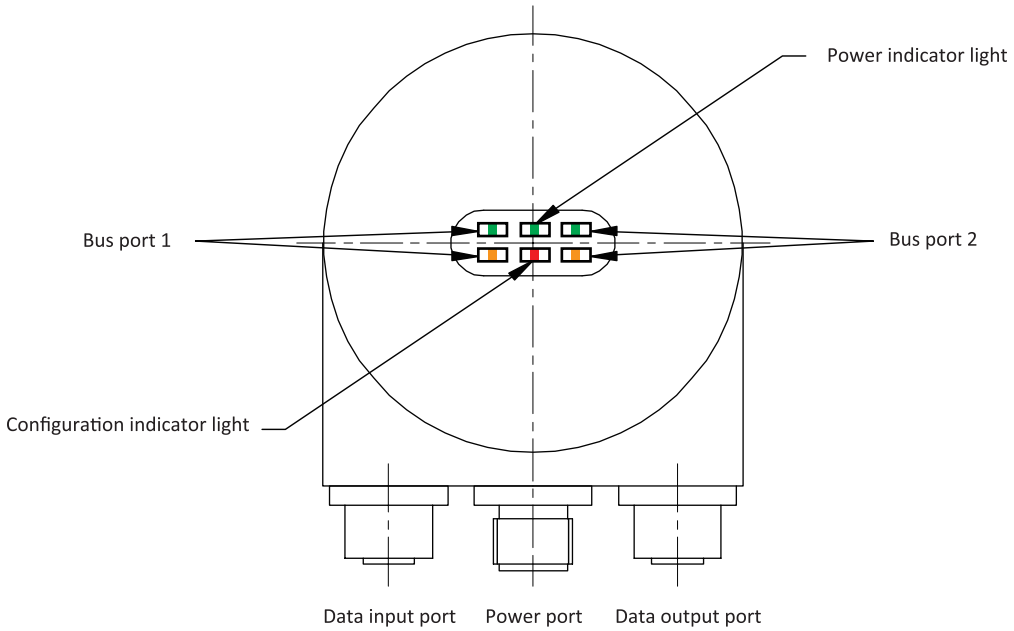
CONNECTION ORIENTATION	Radial	**POWER SUPPLY**	M12, 4-pin, A-coded, Male
BUS PORT 1	M12, 4-pin, D-coded, Female	**BUS PORT 2**	M12, 4-pin, D-coded, Female

STANDARDS AND DIRECTIVES

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR	EN IEC 61000-6-2 EN IEC 61000-6-4

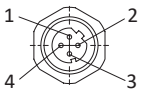
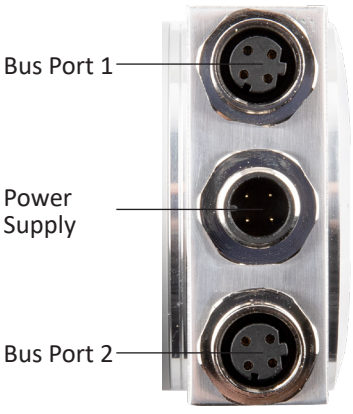
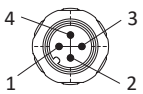
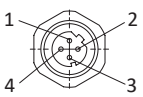
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LED INDICATOR LIGHT



Power indicator light	Green: malfunction	Dark: no power supply
Configuration indicator light	Red: malfunction	Dark: configuration is normal
Bus port 1/2	Red / orange: Normal operation	Dark: abnormal

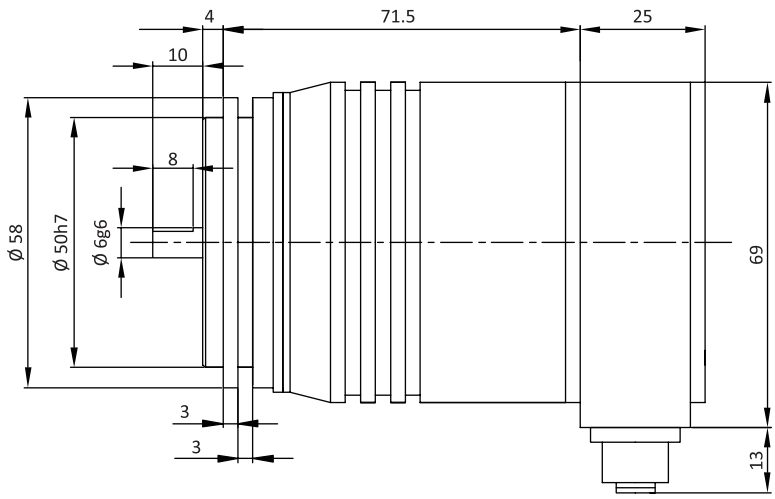
TERMINAL ASSIGNMENT

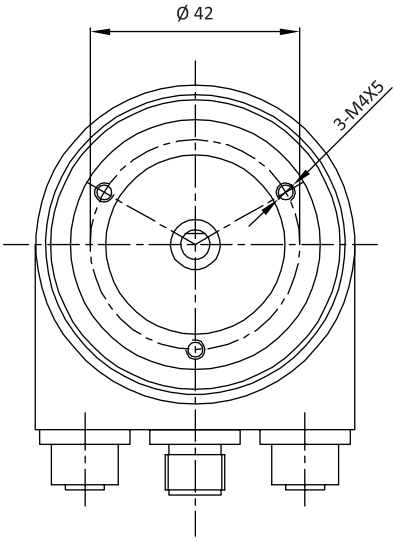
Function	M12 connector						
Bus Port 1	Signal	Transmit data+	Receive data+	Transmit data-	Receive data-		
	Abbreviation	TxD+	RxD+	TxD-	RxD-		
	Pin number	1	2	3	4	D coded	
Power Supply	Signal	Voltage+	-	Voltage-	-		
	Abbreviation	+V	-	0 V	-		
	Pin number	1	2	3	4	A coded	
Bus Port 2	Signal	Transmit data+	Receive data+	Transmit data-	Receive data-		
	Abbreviation	TxD+	RxD+	TxD-	RxD-		
	Pin number	1	2	3	4	D coded	

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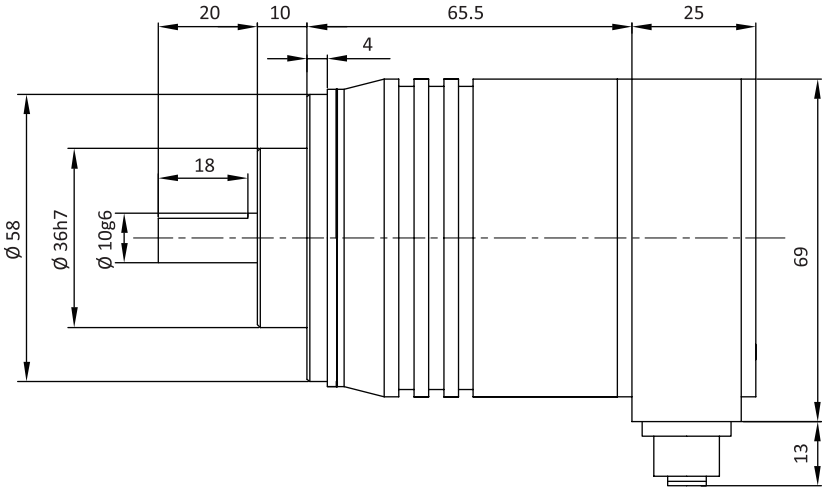
DIMENSIONS (mm)

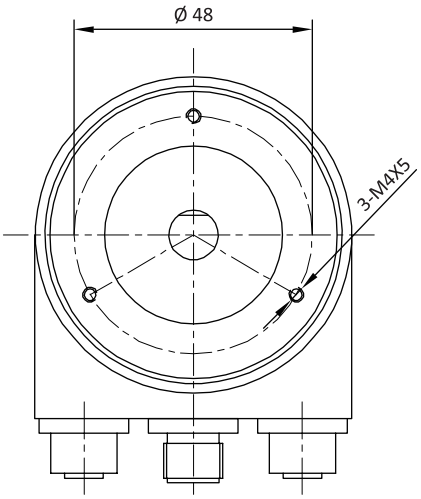
PNM58B





PNM58C

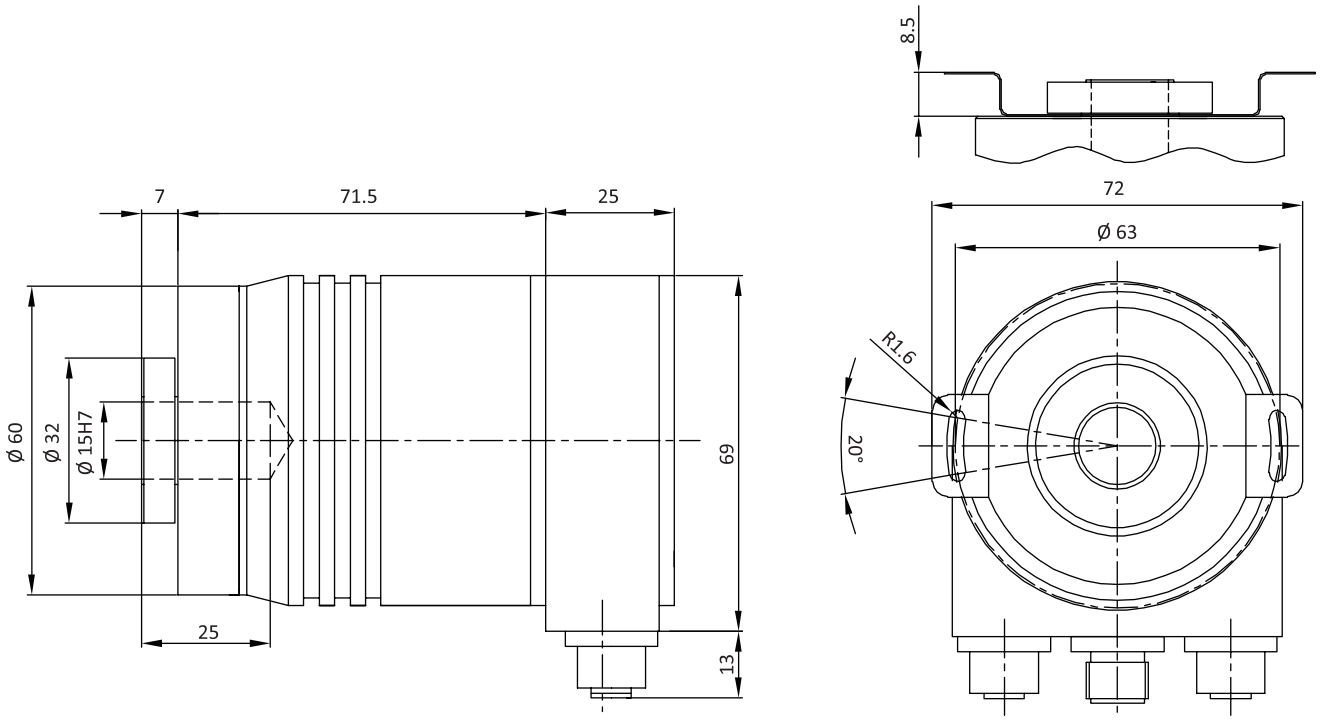




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DIMENSIONS (mm)

PNM58W



PNM58

ORDER CODE

PNM 58 C 10 - B F6 X T R - 4096/8192 . XXXX

Shaft diameter

6 = Ø 6g6 mm	58B
10 = Ø 10g6 mm	58C
8 = Ø 8H7 mm	58W
10 = Ø 10H7 mm	58W
12 = Ø 12H7 mm	58W

Special code

Resolution

Resolution (see previouspages for reference)
Standard 4096/8192(25 bits)

Outlets direction

R = Radial

Flange type

B = Synchro flange, shaft length 10 mm
C = Ø 36 clamping flange, shaft length 20 mm
W = Blind hollow shaft flange, double-winged spring leaf installation

Type of connection

T = Integrated coupler termianl box with 3 M12 plugs

Output logic

X = No definition

Housing diameter

58 = Ø 58 flange

Output & Supply voltage

F6 = Profinet IO interface 10 ... 30 V DC

Series

PNM = ProfiNet interface absolute multiturn

Code type

B=Binary

Matching connectors code:
Bus input connector: TMSP12FD-M4
Bus output connector: TMSP12FD-M4
Power supply connector: TMSP12F-F4

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