

## INDUSTRY Range

### Network Interface Card

[www.balogh-rfid.com](http://www.balogh-rfid.com)

# BNF80 2D

## DESCRIPTION

BNF80 2D is a slave interface managing 2 independent read/write channels.

BNF80 2D offers a Profinet® protocol.

The exchanges with the BNF80 2D can be cyclics (maximum 512 bytes / request) or acyclics (maximum 64Kbytes / request).

BNF80 2D IO-Device is in accordance with Conformance Class B and supports other functionalities such as the Identification & Maintenance (I&M 1-4), Fast-startUp after voltage recovery (FSU), Automatic addressing after device replacement.

BNF80 2D has 2 connections Ethernet identically. The PLC connection or extension network takes place on one or other of the two ports.

Product configuration services are made from an internal Web server or "Balogh Ethernet Setup" software.



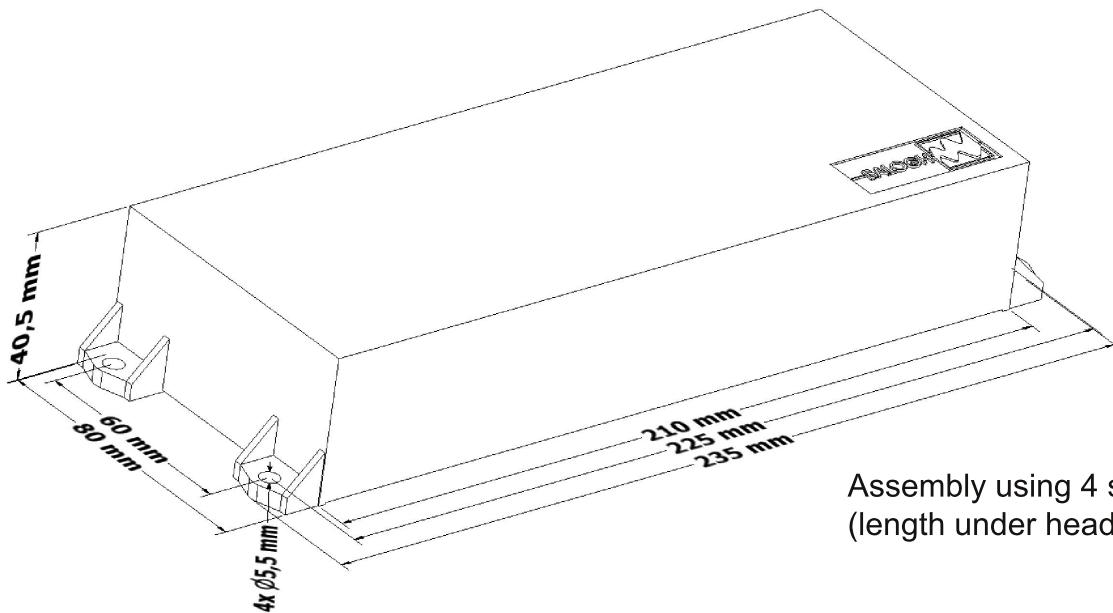
## COMMUNICATION

The BNF80 2D is associated with the TCF type transceivers and with Balogh 13.56MHz tags and all ISO15693 standard tags.

The BNF80 2D associated with TCF... 1346 enables to read/write TAM tags byte/byte in BALOGH 52K mode.

Communication with the supervisor is provided by the Ethernet link (10/100Mb) following PROFINET protocol.

## ASSEMBLY DATA



Assembly using 4 screws Ø 5.5 mm  
(length under head  $\geq$  10 mm)

## CHARACTERISTICS

	min	nominal	max	Unit
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### General

Operating temperature	-25	70	°C
Protection rating	IP65		-
Casing	Rilsan		-
Weight	1200		g

### Power

Supply direct voltage	21	24	29	V
Protection against short circuits	yes		-	
Supply current add that of R/W heads @ 24V	132	150		mA

### Network

Bit rate	10	100	Mbauds
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## CONNECTION

Pin	Ethernet (M12 4pins female D coded)
1	Tx+
2	Rx+
3	Tx-
4	Rx-



Pin	Ethernet (M12 4pins female D coded)
1	Tx+
2	Rx+
3	Tx-
4	Rx-

Pin	Channel (M12 5pins female)
1	24V (OUT)
2	S
3	E
4	0V
5	NC

Pin	Power (M12 5pins male)
1	24V (IN)
2	NC
3	NC
4	0V
5	NC

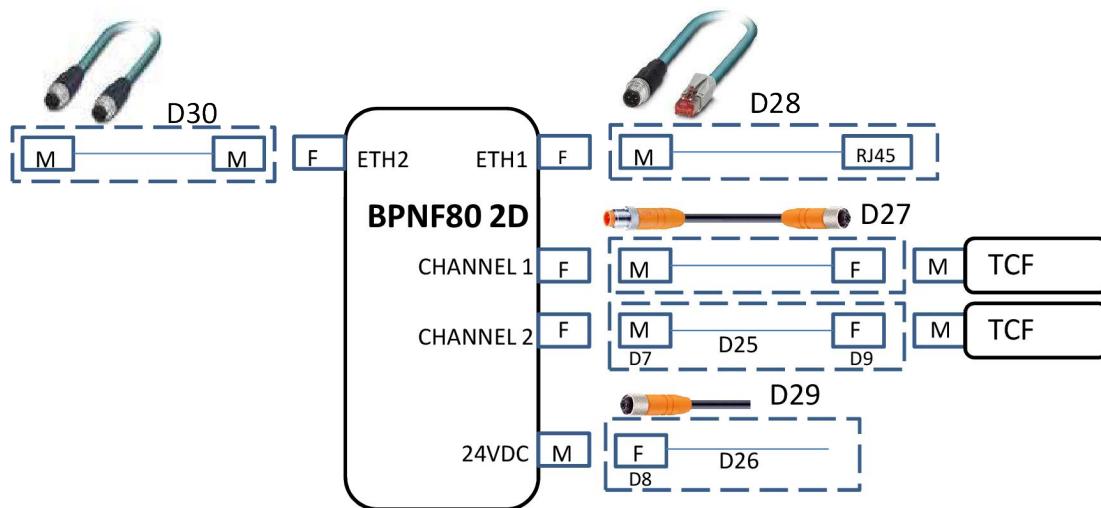
- Shield connection for cables connected to the sockets :

- Power supply 24V : no shielding.
- Network : cable 10/100Mbps, the overall shield must be in contact with 360° of the metallic cable connector housing.
- R/W heads (TCF) : cables with overall shielding, the overall shielding must be in contact with 360° of the metallic cable connector housing.

## INDICATOR LEDS

Led	State	Functional
Mode	Start Phase 1: green then orange	Start phase of bootloader start-up
	Start Phase 2: flashing orange	System initialization
	Start Phase 3: fast flashing green	Start Services
	Start Phase 4: slow flashing green	Initialize Ethernet stack
	Green	Nominal operation
	Green then flashing red	Control execution error on one of the radio channels
Ethernet	Flashing green	The connection to the network
Id	Off	Industrial Ethernet not initialized
	Flashing green	Start Industrial Ethernet : waiting for the connection
	Green fixed	One or more "customers" connected
RF	Flashing orange	TCF absence
	Orange fixed low intensity	TCF presence, no tag in the radio field
	Orange fixed high intensity	TCF presence, tag present in the radio field

## ACCESSORIES



Rep	Nature	Description	Cable	Designation
D7	Connector M12 male	5 pins, PG9 output for Ø 9 max, shieldable		202237
D8	Connector M12 female	4 pins, PG9 output for Ø 9 max		202239
D9	Connector M12 female	5 pins, PG9 output for Ø 9 max, shieldable		202274
D25	TCF cable	4x0,5 <sup>2</sup> , braid shield	PVC	201282
D26	Power cable	2x1 <sup>2</sup>	PVC	202240
D27	Channel M12 male/female	5x0,34 <sup>2</sup> , braid shield, two M12 overmolded, A coded, 5M	PUR	Cordon blindé M/F
D28	Ethernet M12 male/RJ45	2x2x0,23 <sup>2</sup> , CAT5E, S/FTP, direct, hi-flex, M12 D coded, RJ45, 5M	PVC	BM12D-RJ45-5M
D29	Power M12 female	5x0,34 <sup>2</sup> , shieldable, M12 overmolded, A coded, 5M	PUR	CBLM12F5P 5M
D30	Ethernet M12 male/male	2x2x0,23 <sup>2</sup> , CAT5E, S/FTP, direct, hi-flex, M12 D coded, 5M	PVC	BM12D-M12-5M