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IDENTIFICATION SYSTEMS

Network Interface Card

BIDP 170

REFERENCES

Generic references: BIDP170## for 2 channels.
Depending on the tag the card can exchange data with on the corresponding channel a specific firmware is implemented; it is defined by the suffix #, e.g. BIDP170**AA** is designed for OM**A** tags reading/writing on both channels.

GENERAL FEATURES

Authorized slave interface for **ProfiBus® DP-V0** (Ident-Number = 077FHEX).
It handles up to **two independent R/W channels** (both simultaneously read / write data from / to Balogh tags); the channels may differ from each other in tags type.

Communications occur over an RS-485 link (twisted shielded pair).
Each BIDP is assumed as a I/O module exchanging frames; their size may be configured: 8, 16, 32 bytes, then, with a 32-byte step, up to 192 bytes (default value: 32).

It features 15,000-byte data buffers and may communicate:

• in simplified (word-based) modes through user programming (addressing capacity: 64 Kbytes),

• in standard mode (addressing capacity: 16 Kbytes), if the BIDP is driven by a functional block (delivered on a CD):
  ♦ either FS-S7E for Siemens Series 7 (type 3xx or 4xx) PLCs (Step 7 ® shell),
  ♦ or FG-SD7 for the GE Fanuc CNC (using Cimplicity ® ME shell); one block may drive two BIDPs.

DATA FOR ASSEMBLY

view of the upper flange bearing the indicator lights:
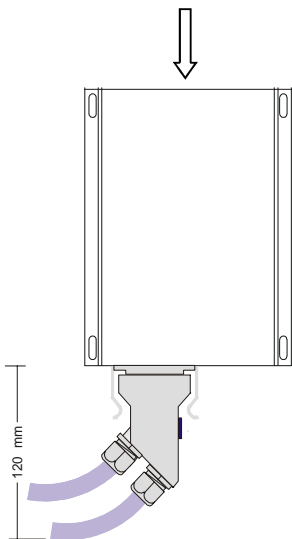
Field mount enclosure.
Vertical mounting preferable,
connectors flange downwards.

Use the 130°-angled Y-tap (ref: 495XXB4469),
fitted with two PG11 stuffing boxes and
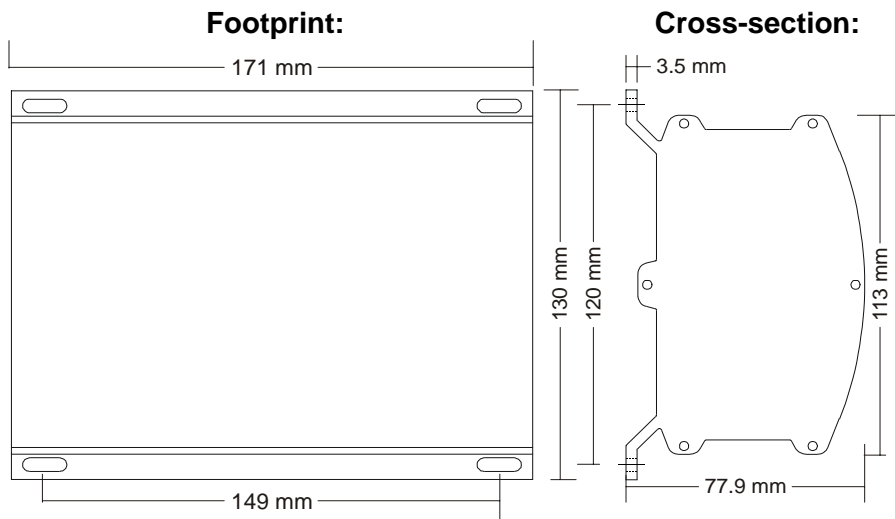a push-pull lock

(required clearance: ca. 120 mm).

120 mm

PROFIBUS DP and Step 7 are
registered trademarks of Siemens.
CIMPLICITY is registered trade-
mark of GE Fanuc

four oblong holes
4.5x14.5 mm are drilled
for enclosure mounting:

Footprint:

171 mm

130 mm
120 mm

149 mm

Cross-section:

3.5 mm

113 mm

77.9 mm

CHARACTERISTICS

	Parameters	MIN	Nominal	MAX	Units
General	Ambient temperature	0		55	°C
	Protection rating		IP 65		-
	Enclosure		Aluminium, PA12 (30%GF)		-
	Weight		1,200		g
Electrical	Supply direct voltage (ripple included)	21	24	29	V
	Protection against polarity reversal		yes		-
	Current consumption (add that of R/W heads) @24VDC			120	mA
Network	Slave number	0		125	-
	Baud rate (auto adaptable)	9.6		12,000	kbauds

CONNECTIONS

PROFIBUS

Pin nr	Descr.	Use
8	A	RS-485
3	B	
4	RTS	
5	DGnd	
6	VP+5V	generated by BIDP at the end

24V   **CHANNEL 2**   **CHANNEL 1**

Voltage	Pin nr
+ 24VDC	1
nc	2, 3
0V	4

Pin nr	1	2	3	4	5
Description	Ucc	Output from head	Input into head	0V	nc

Connection: M12 sockets are keyed (A-coding); cordsets are described in the Accessories data sheet.

Power supply (male M12 socket): no shield.
Network (Sub-D): comply with the Profibus-DP cabling guidelines.
R/W heads (female M12 sockets): refer to the head data sheet for cable requirements:
  • cables with overall shield: the overall shield must compulsorily be in contact over 360° to the metallic cable connector housing;
  • cables with overall shield + shielded pairs: the overall shield must compulsorily be in contact over 360° to the metallic cable connector housing, while the pair shields are connected to pin 5 (optional);
  • cables with shielded pairs, without overall shield: the pair shields must be connected to the metallic cable connector housing.

INDICATOR LIGHTS

24V   CHA 2   CHA 1   STATUS DP

ERR PRE EXE ERR PRE EXE

The "24V" led indicates the power supply is ON.
Three leds monitor the activity of each channel: Error, Presence, Execution in progress.
The bicoloured "Status DP" led indicates whether the BIDP can communicate with the network master.
The last led is only for maintenance.