X20IF2772

Data sheet
2.30 (February 2025)

Version history

B&R makes every effort to keep documents as current as possible. The most current versions are available for download on the B&R website (www.br-automation.com).

1 General information

1.1 Other applicable documents

For additional and supplementary information, see the following documents.

Other applicable documents

Document name	Title
MAX20	X20 System user's manual

1.2 Order data

Order number	Short description	Figure
	X20 interface module communication	
X20IF2772	X20 interface module, 2 CAN bus interfaces, max. 1 Mbit/s, electrically isolated, order 2x terminal block TB2105 separately!	
	Required accessories	
	Terminal blocks	
0TB2105.9010	Accessory terminal block, 5-pin, screw clamp terminal block 2.5 mm²	
0TB2105.9110	Accessory terminal block, 5-pin, push-in terminal block 2.5 mm²	

Table 1: X20IF2772 - Order data

1.3 Module description

The interface module is used for application-specific expansion of the X20 controllers. It is equipped with 2 CAN bus interfaces.

• Dual CAN bus connection
• Integrated terminating resistors

Information:

This module does not support CAN RTR messages with extended CAN identifiers (29-bit) (memory/performance bottleneck).

2 Technical description

2.1 Technical data

| Order number	X20IF2772
Short description	
Communication module	2x CAN bus
General information	
B&R ID code	0x1F25
Status indicators	Module status, data transfer, terminating resistor
Diagnostics	
Module status	Yes, using LED status indicator
Data transfer	Yes, using LED status indicator
Terminating resistor	Yes, using LED status indicator
Power consumption	1.2 W
Additional power dissipation caused by actuators (resistive) [W]	-
Certifications	
CE	Yes
UKCA	Yes
ATEX	Zone 2, II 3G Ex nA nC IIA T5 Gc IP20, Ta (see X20 user's manual) FTZÚ 09 ATEX 0083X
UL	cULus E115267 Industrial control equipment
HazLoc	cCSAus 244665 Process control equipment for hazardous locations Class I, Division 2, Groups ABCD, T5
DNV	Temperature: **B** (0 to 55°C) Humidity: **B** (up to 100%) Vibration: **B** (4 g) EMC: **B** (bridge and open deck)
CCS	Yes
LR	ENV1
KR	Yes
ABS	Yes
BV	**EC33B** Temperature: 5 - 55°C Vibration: 4 g EMC: Bridge and open deck
KC	Yes
Interfaces	
Interface IF1	
Signal	CAN bus [1]
Variant	5-pin male multipoint connector
Max. distance	1000 m
Transfer rate	Max. 1 Mbit/s
Terminating resistor	Integrated in module
Controller	SJA 1000
Interface IF2	
Signal	CAN bus [1]
Variant	5-pin male multipoint connector
Max. distance	1000 m
Transfer rate	Max. 1 Mbit/s
Terminating resistor	Integrated in module
Controller	SJA 1000
Electrical properties	
Electrical isolation	PLC isolated from CAN (IF1 and IF2) and interfaces from each other
Operating conditions	
Mounting orientation	
Horizontal	Yes
Vertical	Yes
Installation elevation above sea level	
0 to 2000 m	No limitation
>2000 m	Reduction of ambient temperature by 0.5°C per 100 m
Degree of protection per EN 60529	IP20

Table 2: X20IF2772 - Technical data

Order number	X20IF2772
Ambient conditions	
Temperature	
Operation	
Horizontal mounting orientation	-25 to 60°C
Vertical mounting orientation	-25 to 50°C
Derating	-
Storage	-40 to 85°C
Transport	-40 to 85°C
Relative humidity	
Operation	5 to 95%, non-condensing
Storage	5 to 95%, non-condensing
Transport	5 to 95%, non-condensing
Mechanical properties	
Note	Order 2x terminal block TB2105 separately.
Slot	In the X20 PLC

Table 2: X20IF2772 - Technical data

1)   This CAN bus interface can be configured as a CANopen master in Automation Studio 3.0 and later.

2.2 Operating and connection elements
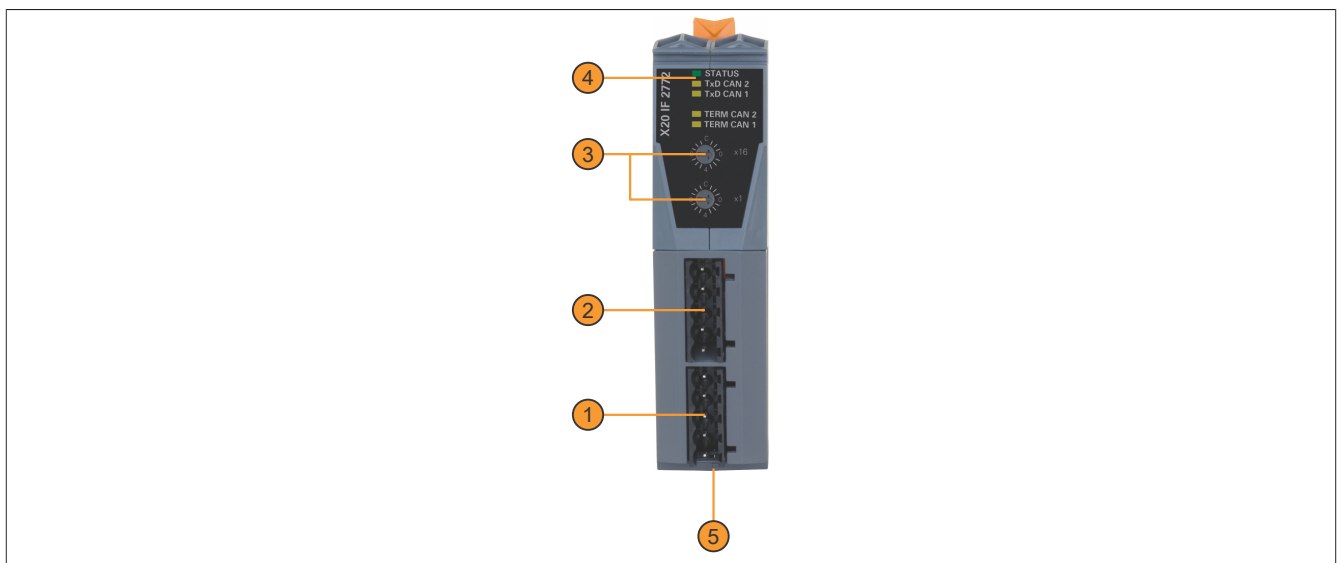

1	IF1 - CAN bus	2	IF2 - CAN bus
3	Node number switches	4	LED status indicators
5	2 switches for terminating resistors on the bottom of the module	6	-

2.2.1 LED status indicators

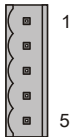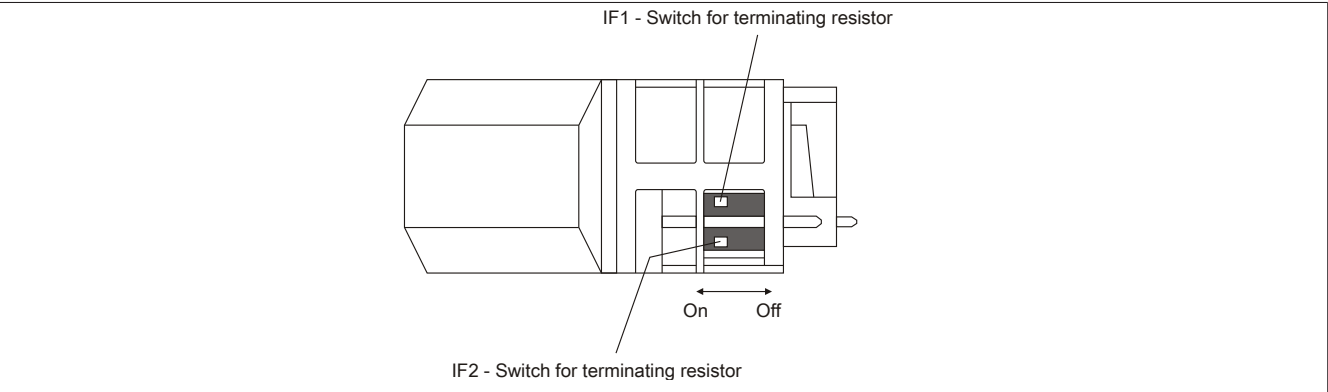| Figure	LED	Color	Status	Description
	STATUS	Green	On	Interface module active
		Red	On	The controller is starting up.
	TxD CAN 1	Yellow	On	The module is sending data via the CAN bus interface (IF1)
	TxD CAN 2	Yellow	On	The module is sending data via the CAN bus interface (IF2)
	TERM CAN 1	Yellow	On	The integrated terminating resistor for the CAN bus interface (IF1) is turned on
	TERM CAN 2	Yellow	On	The integrated terminating resistor for the CAN bus interface (IF2) is turned on

2.2.2 CAN bus node number
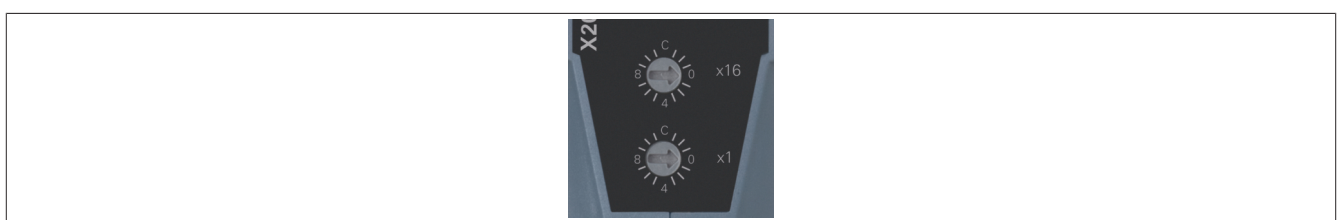
The node number for the CAN bus interfaces is set with the two hex switches.

2.2.3 Interfaces CAN bus 1 and CAN bus 2 (IF1 and IF2)

Both interfaces feature a 5-pin multipoint plug. The 0TB2105 terminal block must be ordered separately.

Interface	Pinout		
	Terminal	**Function**	
	1	CAN⊥	CAN ground
	2	CAN_L	CAN low
	3	SHLD	Shield
	4	CAN_H	CAN high
	5	NC	
5-pin male multipoint connector			

2.2.4 Terminating resistor

Two terminating resistors are integrated in the interface module. The respective resistor can be turned on and off with a switch on the bottom of the housing. An active terminating resistor is indicated by the "TERM CAN 1" or "TERM CAN 2".

3 Commissioning

3.1 Firmware

The module comes with preinstalled firmware. The firmware is part of the Automation Studio project. The module is automatically brought up to this level.

A hardware upgrade must be performed to upgrade the firmware included in Automation Studio (see Help "Project management - Workspace - Upgrades" in Automation Help).