

# X20IF1063

Data sheet  
2.30 (February 2025)



## **Publishing information**

B&R Industrial Automation GmbH

B&R Strasse 1

5142 Eggelsberg

Austria

Telephone: +43 7748 6586-0

Fax: +43 7748 6586-26

[office@br-automation.com](mailto:office@br-automation.com)

## **Disclaimer**

All information in this document is current as of its creation. The contents of this document are subject to change without notice. B&R Industrial Automation GmbH assumes unlimited liability in particular for technical or editorial errors in this document only (i) in the event of gross negligence or (ii) for culpably inflicted personal injury. Beyond that, liability is excluded to the extent permitted by law. Liability in cases in which the law stipulates mandatory unlimited liability (such as product liability) remains unaffected. Liability for indirect damage, consequential damage, business interruption, loss of profit or loss of information and data is excluded, in particular for damage that is directly or indirectly attributable to the delivery, performance and use of this material.

B&R Industrial Automation GmbH notes that the software and hardware designations and brand names of the respective companies used in this document are subject to general trademark, brand or patent protection.

Hardware and software from third-party suppliers referenced in this document is subject exclusively to the respective terms of use of these third-party providers. B&R Industrial Automation GmbH assumes no liability in this regard. Any recommendations made by B&R Industrial Automation GmbH are not contractual content, but merely non-binding information for which no liability is assumed. When using hardware and software from third-party suppliers, the relevant user documentation of these third-party suppliers must additionally be consulted and, in particular, the safety guidelines and technical specifications contained therein must be observed. The compatibility of the products from B&R Industrial Automation GmbH described in this document with hardware and software from third-party suppliers is not contractual content unless this has been separately agreed in individual cases; in this respect, warranty for such compatibility is excluded in any case, and it is the sole responsibility of the customer to verify this compatibility in advance.

## **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](http://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	<a href="#">X20 System user's manual</a>

## 1.2 Order data


Order number	Short description	Figure
	<b>X20 interface module communication</b>	
X20IF1063	X20 interface module, 1 PROFIBUS DP V0 slave interface, max. 12 Mbit/s, electrically isolated	
	<b>Optional accessories</b>	
	<b>Infrastructure components</b>	
0G1000.00-090	Bus connector, RS485, for PROFIBUS networks	

Table 1: X20IF1063 - Order data

## 1.3 Module description

The interface module is used for application-specific expansion of the X20 controllers. It is equipped with a PROFIBUS DP V0 slave interface.

Functions:

- [PROFIBUS DP V0 slave](#)

### PROFIBUS DP

PROFIBUS DP is designed for efficient data exchange at the field level. Data exchange with the decentralized devices based on X2X Link is primarily cyclic.

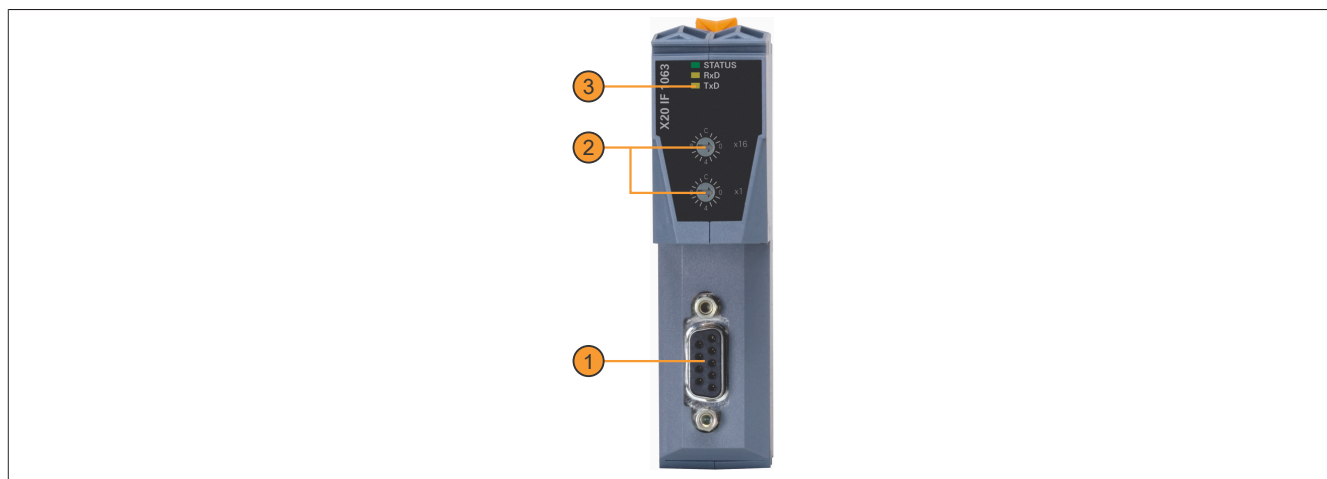
## 2 Technical description

### 2.1 Technical data

Order number	X20IF1063
Short description	
Communication module	1x PROFIBUS DP V0 slave
General information	
B&R ID code	0x1F23
Status indicators	Module status, data transfer
Diagnostics	
Module status	Yes, using LED status indicator
Data transfer	Yes, using LED status indicator
Power consumption	0.87 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
KC	Yes
Interfaces	
Interface IF1	
Fieldbus	PROFIBUS DP V0 slave
Variant	9-pin female DSUB connector
Max. distance	1200 m
Transfer rate	Max. 12 Mbit/s
Terminating resistor	External using T-connector (0G1000.00-090)
Controller	VPC3+C
Electrical properties	
Electrical isolation	PLC isolated from PROFIBUS (IF1)
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
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	
Slot	In the X20 PLC

Table 2: X20IF1063 - Technical data

## 2.2 Operating and connection elements

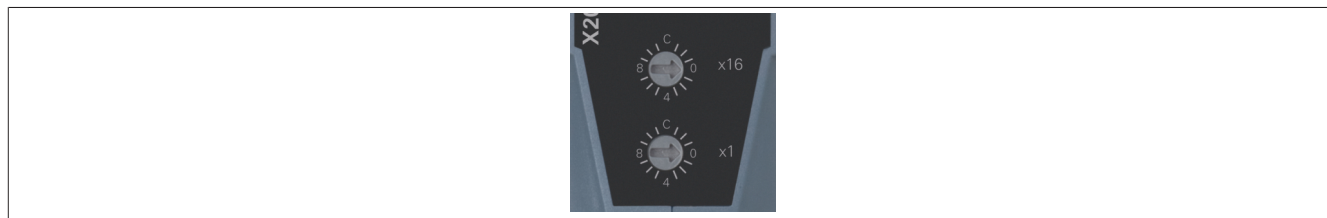


1	IF1 - PROFIBUS DP	2	Node number switches
3	LED status indicators	4	-

### 2.2.1 LED status indicators

Figure	LED	Color	Status	Description
	STATUS	Green	On	Interface module active
		Red	On	The controller is starting up.
	RxD	Yellow	On	The module receives data via the PROFIBUS DP slave interface
	TxD	Yellow	On	The module sends data via the PROFIBUS DP slave interface

### 2.2.2 Node number switch



The node number for the interface is set with the two hex switches.

### 2.2.3 PROFIBUS DP interface

A shielded line must be used for the interface.

Interface	Pinout	
	Pin	RS485
<p>9-pin female DSUB connector</p>	1	Reserved
	2	Reserved
	3	RxD/TxD-P
	4	CNTR-P
	5	DGND
	6	VP
	7	Reserved
	8	RxD/TxD-N
	9	CNTR-N
CNTR ... Direction switch for external repeaters		

- 1) Cable color: Red  
2) Cable color: Green

## 3 Function description

---

### 3.1 PROFIBUS DP

PROFIBUS DP is designed for efficient data exchange at the field level. Data exchange with the decentralized devices based on X2X Link is primarily cyclic. The communication functions required for this are defined by the DP basic functions. Beyond these basic functions, DP also offers acyclic communication services.

PROFIBUS DP is based on the physics of the RS485 interface. Data transfer is controlled using a hybrid bus access procedure: Active stations receive communication rights via a token passing procedure and can then access all stations on the network according to the master-slave principle. The maximum time of circulation for a token can be configured, which results in a defined cycle time.

## 4 Commissioning

---

### 4.1 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).