X20(c)IF1030

1 General information

The interface module can be used to expand the X20 CPU for specific applications. It is equipped with an RS485/RS422 interface.

- RS485/RS422 connection

2 Coated modules

Coated modules are X20 modules with a protective coating for the electronics component. This coating protects X20c modules from condensation and corrosive gases.
The modules' electronics are fully compatible with the corresponding X20 modules.

For simplification purposes, only images and module IDs of uncoated modules are used in this data sheet.

The coating has been certified according to the following standards:

- Condensation: BMW GS 95011-4, 2x 1 cycle
- Corrosive gas: EN 60068-2-60, Method 4, exposure 21 days

3 Order data

Model number	Short description	Figure
	X20 interface module communication	
X20IF1030	X20 interface module, 1 RS422/485 interface, max. 115.2 kbit/s, electrically isolated	
X20cIF1030	X20 interface module, coated, 1 RS422/485 interface, max. 115.2 kbit/s, electrically isolated	
	Optional accessories	
	Infrastructure components	
0G1000.00-090	Bus connector, RS485, for PROFIBUS networks	

Table 1: X20IF1030, X20cIF1030 - Order data

4 Technical data

Model number	X20IF1030	X20cIF1030
Short description		
Communication module	1x RS485/RS422	
General information		
B&R ID code	0x1F28	0xE233
Status indicators	Module status, data transfer	
Diagnostics		
Module status	Yes, using status LED	
Data transfer	Yes, using status LED	
Power consumption	0.4 W	
Additional power dissipation caused by the actuators (resistive) [W]	-	
Electrical isolation		
PLC - IF1	Yes	
Certification		
CE	Yes	
KC	Yes	-
UL	cULus E115267 Industrial Control Equipment	
HazLoc	cCSAus 244665 Process Control Equipment for Hazardous Locations Class I, Division 2, Groups ABCD, T5	
ATEX	Zone 2, II 3G Ex nA nC IIA T5 Gc IP20, Ta = 0 - max. 60°C FTZÚ 09 ATEX 0083X	
DNV GL	Temperature: **B** (0 - 55°C) Humidity: **B** (up to 100%) Vibration: **B** (4g) EMC: **B** (Bridge and open deck)	
LR	ENV1	
GOST-R	Yes	
Interfaces		
IF1 interface		
Signal	RS485/RS422	
Design	9-pin female DSUB connector	
Max. distance	1200 m	
Transfer rate	Max. 115.2 kbit/s	
FIFO	16 bytes in transmit and receive direction	
Terminating resistor	External T-connector (0G1000.00-090)	
Controller	UART type 16C550 compatible	
Operating conditions		
Mounting orientation		
Horizontal	Yes	
Vertical	Yes	
Installation at elevations above sea level		
0 to 2000 m	No limitations	
>2000 m	Reduction of ambient temperature by 0.5°C per 100 m	
EN 60529 protection	IP20	
Environmental conditions		
Temperature		
Operation		
Horizontal installation	-25 to 60°C	
Vertical installation	-25 to 50°C	
Derating	-	
Storage	-40 to 85°C	
Transport	-40 to 85°C	
Relative humidity		
Operation	5 to 95%, non-condensing	Up to 100%, condensing
Storage	5 to 95%, non-condensing	
Transport	5 to 95%, non-condensing	
Mechanical characteristics		
Slot	In X20 CPU	In X20c CPU

Table 2: X20IF1030, X20cIF1030 - Technical data

5 LED status indicators

Figure	LED	Color	Status	Description
	STATUS	Green	On	Interface module active
		Red	On	CPU starting up
	RxD	Yellow	On	The module is receiving data via the RS485/RS422 interface
	TxD	Yellow	On	The module is sending data via the RS485/RS422 interface

6 Operating and connection elements

LED status indicators

IF1 - RS485/RS422

7 RS485/RS422 interface (IF1)

Interface	Pinout		
	Pin	RS485	RS422
User interface RS485/RS422 9-pin female DSUB connector	1	Reserved	Reserved
	2	Reserved	TxD[1]
	3	DATA	RxD
	4	Reserved	Reserved
	5	GND	GND
	6	+5 V / 50 mA	+5 V / 50 mA
	7	Reserved	TXD\[1]
	8	DATA\	RXD\
	9	Reserved	Reserved
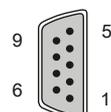
1)   RS422 send data is TRISTATE-capable.

8 Firmware

The module comes with preinstalled firmware. The firmware is a component of Automation Studio. The module is updated to this version automatically.

To update the firmware included in Automation Studio, the hardware must be upgraded (see "Project management" / "Automation Studio upgrade" in Automation Help).