

# X20TB1F

## 1 General information

X20 24 VDC modules with 16 connections are wired using the X20TB1F terminal block.

- Tool-free wiring with push-in technology
- Simple wire release using a screwdriver
- Ability to label each terminal
- Plain text labeling also possible
- Test access for standard probes
- Can be customer-coded

## 2 Order data


Model number	Short description	Figure
	<b>Terminal blocks</b>	
X20TB1F	X20 terminal block, 16-pin, 24 VDC keyed	

Table 1: X20TB1F - Order data

### Information:

To avoid damaging the terminals, the B&R X20AC0SD1 screw driver should be used.

### 3 Technical data

Product ID	X20TB1F
<b>General information</b>	
Certification	
CE	Yes
cULus	Yes
ATEX Zone 2 <sup>1)</sup>	Yes
GL	Yes
LR	Yes
GOST-R	Yes
<b>Terminal block</b>	
Number of pins	16
Type of terminal clamp	Push-in terminal
Push-in force per contact	Typ. 10 N
Cable type	Only copper wires (no aluminum wires!)
Wire stripping length	7 to 9 mm
Connection cross section	
Solid wires	0.08 to 1.50 mm <sup>2</sup> / 28 to 16 AWG
Fine strand wires	0.25 to 1.50 mm <sup>2</sup> / 24 to 16 AWG
With wire end sleeves	0.25 to 0.75 mm <sup>2</sup> / 24 to 20 AWG
Distance between contacts	
Left - Right	4.2 mm
Above - Below	8.25 mm
<b>Electrical characteristics</b>	
Nominal voltage	24 VDC
Max. voltage	50 VDC
Nominal current <sup>2)</sup>	2 A / contact
Contact resistance	≤5 mΩ
<b>Environmental conditions <sup>3)</sup></b>	
Temperature	
Operation	Corresponds to the X20 module used
Relative humidity	
Operation	Corresponds to the X20 module used

Table 2: X20TB1F - Technical data

- 1) Ta min.: 0°C  
Ta max.: See environmental conditions
- 2) Take the respective limit data for the I/O modules into consideration!
- 3) Identical for operation, storage and transport.

## Warning!

It is possible to come into contact with parts that carry voltage when the clamping block is disconnected. For this reason, working on a disconnected clamping block is not permitted at voltages of 50 V or higher.

### 4 Contact holding force

To ensure that cables maintain a secure contact with the terminal block, they must not be under too much stress. If the holding force is exceeded, the cable will come loose from the terminal block and cause a malfunction.

Cables in mm <sup>2</sup>	Fine strand wires			Solid wires				With wire end sleeves	
	0.25	1.5	2.5	0.08	0.25	1.5	2.5	0.25	1.5
Standard spec. (min. value in Newton)	12.5	40	50	4	12.5	40	50	12.5	40

## Information:

Fine strand wires must be twisted to provide sufficient holding force.