



Series SX202

Alphanumeric displays in build-in housings
with PROFINET IO RT interface

Operating instructions (version 1.00)

1 Contact

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2 Legal note

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This operation manual has been prepared with the utmost care. However, we do not accept any liability for possible errors. We always appreciate your suggestions for improvement, corrections, comments and proposals. Please contact us: editing@siebert-group.com

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3 Safety precautions

Important information

Read these operating instructions before using the device. It contains important information on the use, safety and maintenance of the device. This helps you to protect yourself and prevent damage to the device.



Instructions that may lead to death, personal injury or considerable material damage if they are not followed or not followed correctly are highlighted by the warning triangle shown here.

The operating instructions are intended for trained professional electricians familiar with the safety standards of electrical technology and industrial electronics. The manufacturer is not liable if the information in these operating instructions is not complied with.

Store these operating instructions in an appropriate place.

Safety



Components inside the devices are energized with electricity during operation. For this reason, mounting and maintenance work may only be performed by qualified personnel in accordance with the relevant safety regulations.

The repair and replacement of components and modules may only be carried out by the manufacturer for safety reasons and due to the required compliance with the documented unit properties.

The devices do not have a power switch. They are in operation immediately after the operating voltage is applied.

Intended use

The devices are intended for use in industrial environments. They may only be operated within the limit values stipulated by the technical data.

When configuring, installing, maintaining and testing the devices, the safety and accident-prevention regulations relevant to use in each individual case must be complied with.

Trouble-free, safe operation of the units requires proper transport, storage, installation, mounting and careful operation and maintenance of the devices.

Mounting and installation

The attachment options for the units were conceived in such a way as to ensure safe, reliable mounting.



The user must ensure that the fastening material used, the device carrier and the anchoring at the unit device are sufficient for secure mounting under the given on-site conditions.

The devices are to be mounted in such a way that they can be opened up while mounted. Sufficient space for the cables must be available in the unit near the cable entries.

Sufficient space is to be kept clear around the devices to ensure air circulation and to prevent the build-up of heat resulting from use. The relevant information must be heeded in the case of units ventilated by other means.



When the housing fasteners are opened, the front frame of the housing hinges out upward or downward (depending on the unit version) automatically.

Grounding

All devices are equipped with a metal housing. They comply with safety class I and require a protective earth connection. The connecting cable for the operating voltage must contain a protective earth wire of a sufficient cross section (DIN VDE 0106 part 1, DIN VDE 0411 part 1).

EMC measures

The devices comply with the current EU Directive (EMC Directive) and provide the required interference immunity. Observe the following when connecting the operating voltage and data cables:

Use shielded data cables.

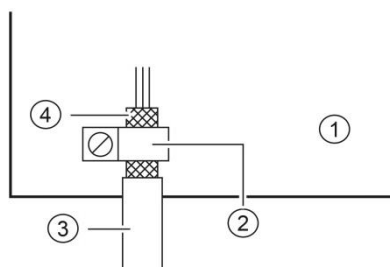
The data and operating voltage cables must be laid separately. They may not be laid together with heavy-current cables or other interference-producing cables.

The cable thickness must be properly assessed (DIN VDE 0100 Part 540).

The cable lengths inside the units are to be kept as short as possible to prevent interference. This applies especially to unshielded operating voltage cables. Shielded cables are also to be kept short due to any interference which might be emitted by the shielding.

Neither excessively long cables nor cable loops may be placed inside the units.

The connection of the cable shielding to the functional ground (PE) must be as short and low-impedance as possible. It should be made directly to the mounting plate over a large area with a conductive clip:



- | | |
|------------------|--------------------|
| ① mounting plate | ② conductive clamp |
| ③ data lines | ④ cable shielding |

The cable shielding is to be connected at both cable ends. If equipotential bonding currents are expected due to the cable arrangement, electrical isolation is to be performed on one side. In this case, capacitive connection (approx. $0.1\mu\text{F}/600\text{ V AC}$) of the shielding on the isolated side must occur.

Disposal and return of old devices



Dispose the packing in an environmentally friendly manner. This device is subject to the European directive on waste electrical and electronic equipment (WEEE). The directive provides the framework for the EU-wide take-back and recycling of old appliances.

Enquiries therefore should be sent by e-mail to the following e-mail address:
info@siebert-group.com

Units or unit parts which are no longer needed are to be disposed of in accordance with the regulations in effect in your country. Personal data on the old appliances to be disposed of must be deleted by the user.

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4 Model designation

This manual applies to units with the following model designation:
 (x = the 'x's in the model designation indicate the size and design of the units)

SX202-xx/xx/xx-xxx/xx-N0

5 PROFINET connection

The integration of the displays in PROFINET environments is described in the manual 'QuickStart for TIA Portal'.

The instructions and the GSDML file are available under the following link:



manuals.siebert-group.com/sx302-profinet

6 Technical data

Field bus

Interface	PROFINET IO RT, conformity class CC-B
MAC address	The MAC address for the PROFINET connection is found on the device.
Integrated switch	PROFINET IO IRT, conformity class CC-C

Power supply

Power consumption	24 V DC $\pm 15\%$, galvanically isolated protected against reversed polarity
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Housing

Material	Aluminum, black anodized Profile connector: plastic, black
Protection type	IP65, front

Ambient conditions

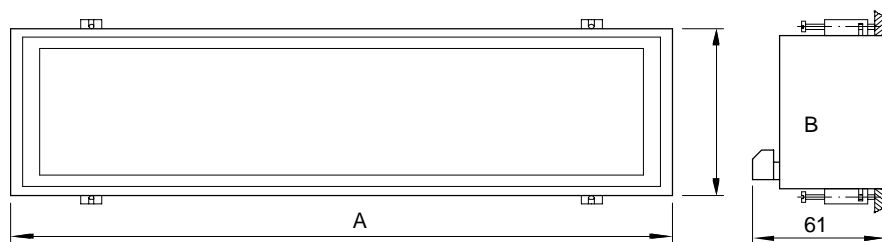
Operating temperature	0...50 °C
Storage temperature	-30...85 °C
Relative humidity	max. 95 % (non condensing)

7 Unit properties

The device version is coded in the type designation as follows:

	SX202	-	<input type="text"/>	<input type="text"/>	/	<input type="text"/>	<input type="text"/>	/	0	<input type="text"/>	-	0	0	<input type="text"/>	/	0	B	-	N	0
			:	:		:	:		:	:		:	:			:	:		:	:
4 digits			0	4		:	:		:	:		:	:			:	:		:	:
6 digits			0	6		:	:		:	:		:	:			:	:		:	:
8 digits			0	8		:	:		:	:		:	:			:	:		:	:
12 digits			1	2		:	:		:	:		:	:			:	:		:	:
16 digits			1	6		:	:		:	:		:	:			:	:		:	:
20 digits			2	0		:	:		:	:		:	:			:	:		:	:
24 digits			2	4		:	:		:	:		:	:			:	:		:	:
			:	:		:	:		:	:		:	:			:	:		:	:
Character height 30 mm			0	3		:	:		:	:		:	:			:	:		:	:
Character height 50 mm			0	5		:	:		:	:		:	:			:	:		:	:
			:	:		:	:		:	:		:	:			:	:		:	:
Character color red																				R
Character color green																				G
																				:
Protection type IP54																				0
Protection type IP65																				1

8 Dimensions, power consumption, weight



Panel cut-out (W x H): A – 7 mm x 89 mm

	A [mm]	B [mm]	Weight [g] ¹⁾	max. power consumption [VA] ²⁾
4 digits				
SX202-04/05/xx-xxx/xx-xx	240	96	840	6
6 digits				
SX202-06/05/xx-xxx/xx-xx	336	96	1120	6
8 digits				
SX202-08/03/xx-xxx/xx-xx	264	96	650	5
SX202-08/05/xx-xxx/xx-xx	432	96	1400	8
12 digits				
SX202-12/03/xx-xxx/xx-xx	384	96	900	5
SX202-12/05/xx-xxx/xx-xx	624	96	1960	8
16 digits				
SX202-16/03/xx-xxx/xx-xx	480	96	1150	6
SX202-16/05/xx-xxx/xx-xx	809	96	2550	10
20 digits				
SX202-20/03/xx-xxx/xx-xx	600	96	1400	6
24 digits				
SX202-24/03/xx-xxx/xx-xx	696	96	1650	7

¹⁾ approximate values

²⁾ approximate values, depending on the displayed characters