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Operating instructions

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## Series S302

Numeric large size displays  
with frequency meter function

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**1 Contact**

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**[www.siebert-group.com](http://www.siebert-group.com)**

**GERMANY**

Siebert Industrieelektronik GmbH  
Siebertstrasse, D-66571 Eppelborn  
P.O. Box 11 30, D-66565 Eppelborn  
Phone +49 (0)6806 980-0, Fax +49 (0)6806 980-999  
email [info.de@siebert-group.com](mailto:info.de@siebert-group.com)

**AUSTRIA**

Siebert Österreich GmbH  
Mooslackengasse 17. A-1190 Wien  
Phone +43 (0)1 890 63 86-0, Fax +43 (0)14 890 63 86-99  
email [info.at@siebert-group.com](mailto:info.at@siebert-group.com)

**FRANCE**

Siebert France Sarl  
4 rue de l'Abbé Louis Verdet, F-57200 Sarreguemines  
P.O. Box 90 334, F-57203 Sarreguemines Cédex  
Phone +33 (0)3 87 98 63 68, Fax +33 (0)3 87 98 63 94  
email [info.fr@siebert-group.com](mailto:info.fr@siebert-group.com)

**THE NETHERLANDS**

Siebert Nederland B.V.  
Jadedreef 26, NL-7828 BH Emmen  
Phone +31 (0)591-633444, Fax +31 (0)591-633125  
email [info.nl@siebert-group.com](mailto:info.nl@siebert-group.com)

**SWITZERLAND**

Siebert AG  
Bützbergstrasse 2, P.O. Box 91, CH-4912 Aarwangen  
Phone +41 (0)62 922 18 70, Fax +41 (0)62 922 33 37  
email [info.ch@siebert-group.com](mailto:info.ch@siebert-group.com)

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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](mailto:editing@siebert-group.com)

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### 3 Safety precautions

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#### Important information

Read these operating instructions before starting the unit. They provide you with important information on the use, safety and maintenance of the units. This helps you to protect yourself and prevent damage to the unit.



Information intended to help you to avoid death, bodily harm or considerable damage to property is highlighted by the warning triangle shown here; it is imperative that this information be properly heeded.

The operating instructions are intended for trained professional electricians familiar with the safety standards of electrical technology and industrial electronics.

Store these operating instructions in an appropriate place.

The manufacturer is not liable if the information in these operating instructions is not complied with.

#### Safety



Components inside the units are energized with electricity during operation. For this reason, mounting and maintenance work may only be performed by professionally-trained personnel while observing the corresponding 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 units do not have a power switch. They are operative as soon as the operating voltage is applied.

#### Intended use

The units 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 units, 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 units.

#### 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 attachment hardware, the unit carrier and the anchoring at the unit carrier are sufficient to securely support the unit under the given surrounding conditions.

The units 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 units 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 EU Directive 2004/108/EC (EMC Directive) and provide the required interference immunity. Observe the following when connecting the operating voltage and data cables:

Use shielded data cables.

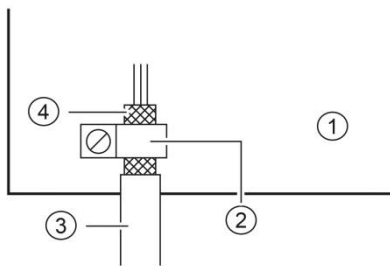
The data and operating voltage cables must be laid separately. They may not be laid together with heavy-current cables or other interference-producing cables.

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

Units or unit parts which are no longer needed are to be disposed of in accordance with the regulations in effect in your country.

## 4 Unit description

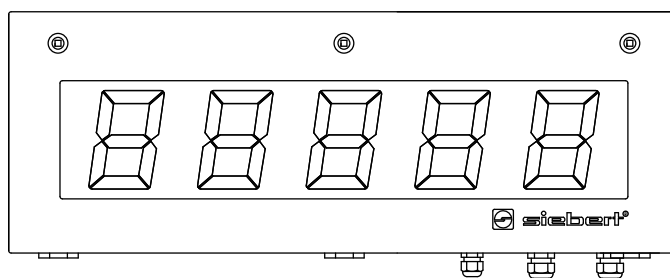
### Model designation

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 (see Chapter 8):

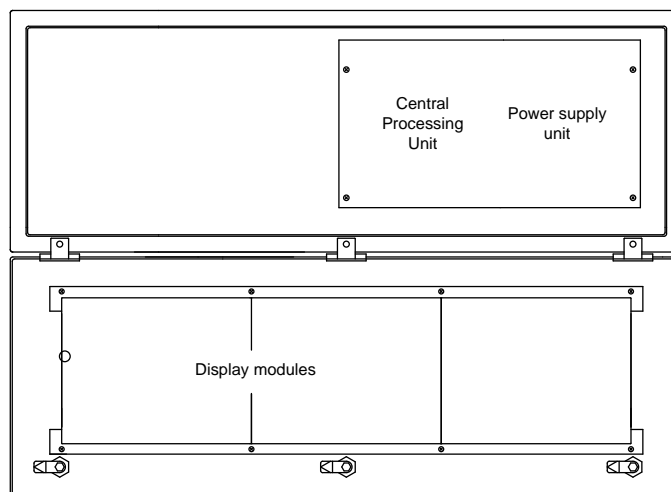
S302-xx/xx/xx-xxx/xx-Z2 (opto-coupler input, frequency measurement)

### Unit construction

The following figure shows model type S302-05/10/xx-xxx/xx-xx as example for the other model types. The front frame of the housing is locked with quick-action releases. When opening the unit the front frame hinges downward.



The following figure shows the unit when open.



Units with double-sided display show the same information on the front and on the rear side.

### Power supply

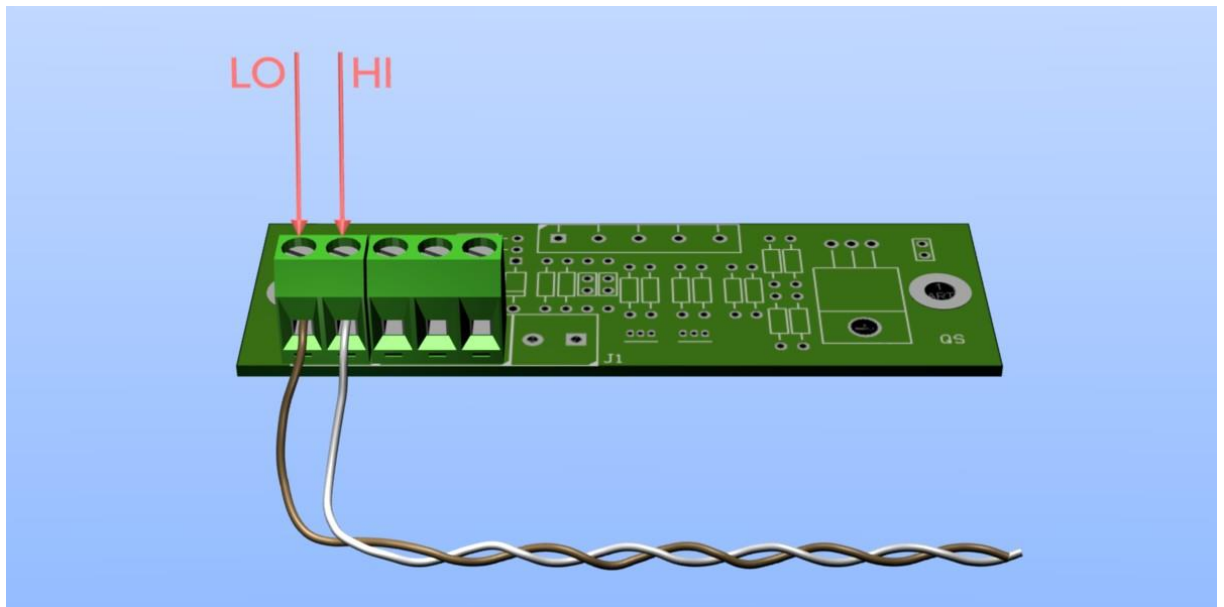
The screw-type terminals for the power supply are located on the power supply unit in the bottom section of the housing. They have the following designations:

Devices for a power supply 115 V AC or 230 V AC	L, N and PE
Devices for a power supply 24 V DC	+, – and PE

## 5 Control

### Pin assignment

The following figure shows the printed circuit board with the two terminals to which the pulse generator is connected to. The terms HI (white cable) and Lo (brown cable) are found in Chapter Notes.



### Galvanic isolation

The input circuit consists of an opto-coupler for galvanic isolation. As dropping resistor 1,0 kilohm  $k\Omega$  is used.

### Electrical properties

The input has the following properties:

Electrical properties	min.	typ.	max.
Input voltage Low ( $V_{in,lo}$ )			2 V
Input voltage High ( $V_{in,hi}$ )	12 V		26 V
Minimum measurable frequency ( $F_{min}$ )	0,01 Hz		
Maximum measurable frequency ( $F_{max}$ )			250 Hz
Rise time			100 $\mu$ s
Fall time			100 $\mu$ s
Time base for time measurement		100 $\mu$ s	

### Update rate

To measure with the display at very low frequencies with sufficient accuracy a long measurement interval is required. This results in a low update rate. This would be disruptive at high input frequencies.

By an adaptive measuring procedure it is achieved that the display updates itself as fast as possible.

If the frequency at the input fell below the lower limit, the display mode switches to the value 0 after a few seconds. If still no frequency is recognized the display switches to a mode in which only the decimal points with varying brightness light up.



This results in the following combinations:

<b>Frequency range</b>	<b>Course of updating</b>
>200 Hz	Last valid value
1Hz...200 Hz	Once every second
0,01 Hz...1Hz	With the next edge of the input signal
<0,01 Hz	<ol style="list-style-type: none"><li>1. Display remains on its value</li><li>2. After a few seconds it is switched to 0</li><li>3. After a few minutes the points are shown in varying intensity</li></ol>

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## 6 Parametrization

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### Configuration

If necessary the display can be configured via serial interface or via Bluetooth, after consultation with our support.

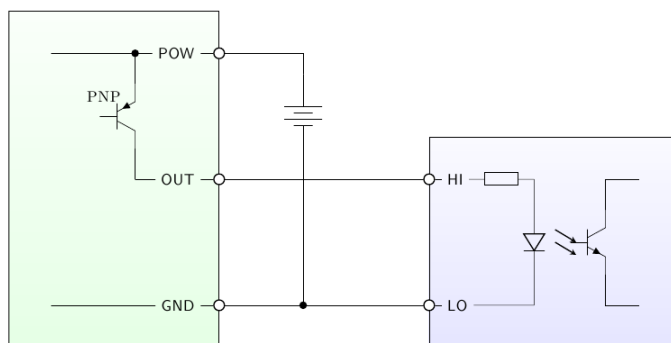
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## 7 Configuration note

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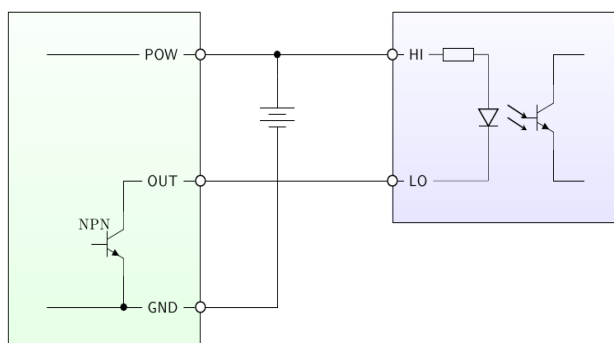
### PNP exit

For signal generators with PNP exit the display is connected between the frequency output (OUT) and the reference potential (GND), see picture.



### NPN exit

For signal generators with NPN exit the display is connected between the power supply (POW) and the frequency output (OUT), see picture.



## 8 Technical data

### Unit properties

The model designation is structured as follows:

S302	-	<input type="text"/>	/	<input type="text"/>	/	<input type="text"/>	-	<input type="text"/>	/	<input type="text"/>	-	<input type="text"/>
No dimension symbol	0	:	:	:	:	:	:	:	:	:	:	:
Dimension symbol	F	:	:	:	:	:	:	:	:	:	:	:
1 Digit	1	:	:	:	:	:	:	:	:	:	:	:
2 Digits	2	:	:	:	:	:	:	:	:	:	:	:
↓	↓	:	:	:	:	:	:	:	:	:	:	:
8 Digits	8	:	:	:	:	:	:	:	:	:	:	:
Character height 57 mm	0	6	:	:	:	:	:	:	:	:	:	:
Character height 100 mm	1	0	:	:	:	:	:	:	:	:	:	:
Character height 160 mm	1	6	:	:	:	:	:	:	:	:	:	:
Character height 250 mm	2	5	:	:	:	:	:	:	:	:	:	:
LED Standard	0	:	:	:	:	:	:	:	:	:	:	:
LED for outdoor use	2	:	:	:	:	:	:	:	:	:	:	:
Character color red												R
Character color green												G
Character color white												W
Display readable on one side	1	:	:	:	:	:	:	:	:	:	:	:
Display readable on both sides	2	:	:	:	:	:	:	:	:	:	:	:
Steel sheet housing, coated	0	:	:	:	:	:	:	:	:	:	:	:
Steel sheet housing, bilayer painting	1	:	:	:	:	:	:	:	:	:	:	:
Stainless steel housing V2A, coated	2	:	:	:	:	:	:	:	:	:	:	:
Stainless steel housing V2A, brushed	3	:	:	:	:	:	:	:	:	:	:	:
Stainless steel housing V4A, brushed	5	:	:	:	:	:	:	:	:	:	:	:
Protection type IP54	0	:	:	:	:	:	:	:	:	:	:	:
Protection type IP65	1	:	:	:	:	:	:	:	:	:	:	:
Protection type IP54 with climate adjustment	2	:	:	:	:	:	:	:	:	:	:	:
Protection type IP54 with climate adjustment and heating	4	:	:	:	:	:	:	:	:	:	:	:
Wall mounting, cable entry point from the bottom	0	:	:	:	:	:	:	:	:	:	:	:
Wall mounting, cable entry point from the top	1	:	:	:	:	:	:	:	:	:	:	:
Hanging installation, cable entry point from the bottom	2	:	:	:	:	:	:	:	:	:	:	:
Hanging installation, cable entry point from the top	3	:	:	:	:	:	:	:	:	:	:	:
Wall mounting and hanging installation, cable entry point from the bottom	4	:	:	:	:	:	:	:	:	:	:	:
Wall mounting and hanging installation, cable entry point from the top	5	:	:	:	:	:	:	:	:	:	:	:
Power supply 230 V AC ±15 %, 50 Hz												A
Power supply 24 V DC ±15 %												B
Power supply 115 V AC ±15 %, 60 Hz												C
Display for frequency measurement											Z	2

## Max. power consumption

Units with one-sided display	
1 digit	
S302-x1/10/0x-1xx/xx-xx	approx. 12 VA
S302-x1/10/4x-1xx/xx-xx	approx. 50 VA
S302-x1/16/0x-1xx/xx-xx	approx. 22 VA
S302-x1/16/4x-1xx/xx-xx	approx. 50 VA
S302-x1/25/0x-1xx/xx-xx	approx. 26 VA
S302-x1/25/4x-1xx/xx-xx	approx. 85 VA
2 digits	
S302-x2/06/0x-1xx/xx-xx	approx. 12 VA
S302-x2/10/0x-1xx/xx-xx	approx. 15 VA
S302-x2/10/4x-1xx/xx-xx	approx. 50 VA
S302-x2/16/0x-1xx/xx-xx	approx. 37 VA
S302-x2/16/4x-1xx/xx-xx	approx. 50 VA
S302-x2/25/0x-1xx/xx-xx	approx. 46 VA
S302-x2/25/4x-1xx/xx-xx	approx. 85 VA
3 digits	
S302-x3/06/0x-1xx/xx-xx	approx. 13 VA
S302-x3/10/0x-1xx/xx-xx	approx. 17 VA
S302-x3/10/4x-1xx/xx-xx	approx. 50 VA
S302-x3/16/0x-1xx/xx-xx	approx. 51 VA
S302-x3/16/4x-1xx/xx-xx	approx. 50 VA
S302-x3/25/0x-1xx/xx-xx	approx. 63 VA
S302-x3/25/4x-1xx/xx-xx	approx. 85 VA
4 digits	
S302-x4/06/0x-1xx/xx-xx	approx. 14 VA
S302-x4/10/0x-1xx/xx-xx	approx. 21 VA
S302-x4/10/4x-1xx/xx-xx	approx. 50 VA
S302-x4/16/0x-1xx/xx-xx	approx. 64 VA
S302-x4/16/4x-1xx/xx-xx	approx. 50 VA
S302-x4/25/0x-1xx/xx-xx	approx. 79 VA
S302-x4/25/4x-1xx/xx-xx	approx. 85 VA
5 digits	
S302-x5/06/0x-1xx/xx-xx	approx. 15 VA
S302-x5/10/0x-1xx/xx-xx	approx. 23 VA
S302-x5/10/4x-1xx/xx-xx	approx. 50 VA
S302-x5/16/0x-1xx/xx-xx	approx. 77 VA
S302-x5/16/4x-1xx/xx-xx	approx. 50 VA
S302-x5/25/0x-1xx/xx-xx	approx. 96 VA
S302-x5/25/4x-1xx/xx-xx	approx. 85 VA
6 digits	
S302-x6/06/0x-1xx/xx-xx	approx. 16 VA
S302-x6/10/0x-1xx/xx-xx	approx. 26 VA
S302-x6/10/4x-1xx/xx-xx	approx. 50 VA
S302-x6/16/0x-1xx/xx-xx	approx. 91 VA
S302-x6/16/4x-1xx/xx-xx	approx. 50 VA
S302-x6/25/0x-1xx/xx-xx	approx. 113 VA
S302-x6/25/4x-1xx/xx-xx	approx. 85 VA
7 digits	
S302-x7/06/0x-1xx/xx-xx	approx. 17 VA
S302-x7/10/0x-1xx/xx-xx	approx. 30 VA
S302-x7/10/4x-1xx/xx-xx	approx. 50 VA
S302-x7/16/0x-1xx/xx-xx	approx. 104 VA
S302-x7/16/4x-1xx/xx-xx	approx. 50 VA
S302-x7/25/0x-1xx/xx-xx	approx. 130 VA
S302-x7/25/4x-1xx/xx-xx	approx. 85 VA
8 digits	
S302-x8/06/0x-1xx/xx-xx	approx. 18 VA
S302-x8/10/0x-1xx/xx-xx	approx. 32 VA
S302-x8/10/4x-1xx/xx-xx	approx. 50 VA

Units with double-sided display	
1 digits	
S302-x1/10/0x-2xx/xx-xx	approx. 16 VA
S302-x1/10/4x-2xx/xx-xx	approx. 91 VA
S302-x1/16/0x-2xx/xx-xx	approx. 35 VA
S302-x1/16/4x-2xx/xx-xx	approx. 91 VA
S302-x1/25/0x-2xx/xx-xx	approx. 42 VA
S302-x1/25/4x-2xx/xx-xx	approx. 164 VA
2 digits	
S302-x2/06/0x-2xx/xx-xx	approx. 15 VA
S302-x2/10/0x-2xx/xx-xx	approx. 21 VA
S302-x2/10/4x-2xx/xx-xx	approx. 91 VA
S302-x2/16/0x-2xx/xx-xx	approx. 66 VA
S302-x2/16/4x-2xx/xx-xx	approx. 91 VA
S302-x2/25/0x-2xx/xx-xx	approx. 83 VA
S302-x2/25/4x-2xx/xx-xx	approx. 164 VA
3 digits	
S302-x3/06/0x-2xx/xx-xx	approx. 17 VA
S302-x3/10/0x-2xx/xx-xx	approx. 26 VA
S302-x3/10/4x-2xx/xx-xx	approx. 91 VA
S302-x3/16/0x-2xx/xx-xx	approx. 92 VA
S302-x3/16/4x-2xx/xx-xx	approx. 91 VA
S302-x3/25/0x-2xx/xx-xx	approx. 116 VA
S302-x3/25/4x-2xx/xx-xx	approx. 164 VA
4 digits	
S302-x4/06/0x-2xx/xx-xx	approx. 19 VA
S302-x4/10/0x-2xx/xx-xx	approx. 33 VA
S302-x4/10/4x-2xx/xx-xx	approx. 91 VA
S302-x4/16/0x-2xx/xx-xx	approx. 119 VA
S302-x4/16/4x-2xx/xx-xx	approx. 91 VA
S302-x4/25/0x-2xx/xx-xx	approx. 150 VA
S302-x4/25/4x-2xx/xx-xx	approx. 164 VA
5 digits	
S302-x5/06/0x-2xx/xx-xx	approx. 21 VA
S302-x5/10/0x-2xx/xx-xx	approx. 38 VA
S302-x5/10/4x-2xx/xx-xx	approx. 91 VA
S302-x5/16/0x-2xx/xx-xx	approx. 146 VA
S302-x5/16/4x-2xx/xx-xx	approx. 91 VA
S302-x5/25/0x-2xx/xx-xx	approx. 184 VA
S302-x5/25/4x-2xx/xx-xx	approx. 164 VA
6 digits	
S302-x6/06/0x-2xx/xx-xx	approx. 23 VA
S302-x6/10/0x-2xx/xx-xx	approx. 43 VA
S302-x6/10/4x-2xx/xx-xx	approx. 91 VA
S302-x6/16/0x-2xx/xx-xx	approx. 173 VA
S302-x6/16/4x-2xx/xx-xx	approx. 91 VA
S302-x6/25/0x-2xx/xx-xx	approx. 217 VA
S302-x6/25/4x-2xx/xx-xx	approx. 164 VA
7 digits	
S302-x7/06/0x-2xx/xx-xx	approx. 25 VA
S302-x7/10/0x-2xx/xx-xx	approx. 51 VA
S302-x7/10/4x-2xx/xx-xx	approx. 91 VA
S302-x7/16/0x-2xx/xx-xx	approx. 200 VA
S302-x7/16/4x-2xx/xx-xx	approx. 91 VA
S302-x7/25/0x-2xx/xx-xx	approx. 250 VA
S302-x7/25/4x-2xx/xx-xx	approx. 164 VA
8 digits	
S302-x8/06/0x-2xx/xx-xx	approx. 27 VA
S302-x8/10/0x-2xx/xx-xx	approx. 55 VA
S302-x8/10/4x-2xx/xx-xx	approx. 91 VA

The power consumption for the device model S302-xx/xx/0x-xxx/xx-xx is also valid for the device model S302-xx/xx/2x-xxx/xx-xx (LEDs for external use).

For units with built-in heating, the values for power consumption specified in the table increase by approx. 10 – 100 VA (exact values on request), depending on the unit size).

#### **Screw-type terminals**

Control computer	Capacity of terminals 0,14...1,5 mm <sup>2</sup>
Power supply	Capacity of terminals 0,2...4 mm <sup>2</sup>

#### **Housing colors**

Case front	RAL 5002 ultramarine
Case rear part	RAL 7035 light grey

#### **Front frame**

S302-xx/xx/xR-xxx/xx-xx	Plastic, tinted red, non-reflective
S302-xx/06/xG-xxx/xx-xx	Plastic, tinted green, non-reflective
S302-xx/10/xG-xxx/xx-xx	Plastic, tinted green, non-reflective
Other model types	Plastic, clear, non-reflective

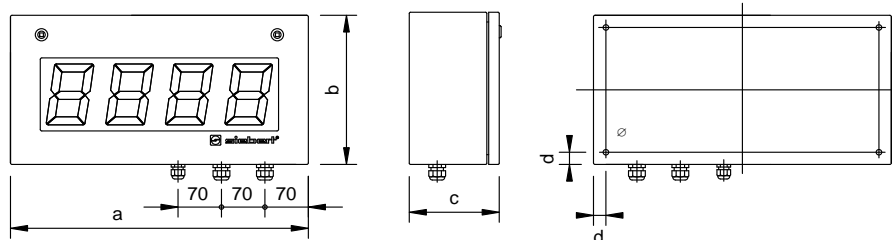
#### **Ambient conditions**

Operating temperature	0...55 °C
Storage temperature	-30...85 °C
Relative humidity	max. 95 % (non-condensing)

## Measurements and weights

### Units with one-sided display

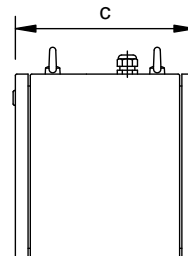
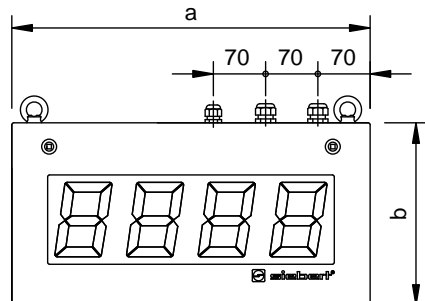
The following figure shows unit version S302-04/10/4x-1xx/xx-xx, representing the other unit versions listed in the following table.



1 digit	a	b	c	d	Ø	Weight
S302-01/10/xx-1xx/xx-xx	330 mm	245 mm	145 mm	32 mm	7 mm	approx. 7 kg
S302-01/16/xx-1xx/xx-xx	390 mm	300 mm	145 mm	40 mm	9 mm	approx. 9 kg
S302-01/25/xx-1xx/xx-xx	570 mm	400 mm	165 mm	40 mm	9 mm	approx. 14 kg
<b>2 digits</b>						
S302-02/06/xx-1xx/xx-xx	300 mm	185 mm	110 mm	32 mm	7 mm	approx. 5 kg
S302-02/10/xx-1xx/xx-xx	330 mm	245 mm	145 mm	32 mm	7 mm	approx. 7 kg
S302-02/16/xx-1xx/xx-xx	390 mm	300 mm	145 mm	40 mm	9 mm	approx. 9 kg
S302-02/25/xx-1xx/xx-xx	570 mm	400 mm	165 mm	40 mm	9 mm	approx. 15 kg
<b>3 digits</b>						
S302-03/06/xx-1xx/xx-xx	300 mm	185 mm	110 mm	32 mm	7 mm	approx. 5 kg
S302-03/10/xx-1xx/xx-xx	480 mm	245 mm	145 mm	32 mm	7 mm	approx. 7 kg
S302-03/16/xx-1xx/xx-xx	670 mm	300 mm	145 mm	40 mm	9 mm	approx. 13 kg
S302-03/25/xx-1xx/xx-xx	1030 mm	400 mm	165 mm	40 mm	9 mm	approx. 22 kg
<b>4 digits</b>						
S302-04/06/xx-1xx/xx-xx	300 mm	185 mm	110 mm	32 mm	7 mm	approx. 5 kg
S302-04/10/xx-1xx/xx-xx	480 mm	245 mm	145 mm	32 mm	7 mm	approx. 9 kg
S302-04/16/xx-1xx/xx-xx	670 mm	300 mm	145 mm	40 mm	9 mm	approx. 15 kg
S302-04/25/xx-1xx/xx-xx	1030 mm	400 mm	165 mm	40 mm	9 mm	approx. 24 kg
<b>5 digits</b>						
S302-05/06/xx-1xx/xx-xx	400 mm	185 mm	110 mm	32 mm	7 mm	approx. 6 kg
S302-05/10/xx-1xx/xx-xx	680 mm	245 mm	145 mm	32 mm	7 mm	approx. 12 kg
S302-05/16/xx-1xx/xx-xx	960 mm	300 mm	145 mm	40 mm	9 mm	approx. 18 kg
S302-05/25/xx-1xx/xx-xx	1500 mm	400 mm	165 mm	40 mm	9 mm	approx. 33 kg
<b>6 digits</b>						
S302-06/06/xx-1xx/xx-xx	400 mm	185 mm	110 mm	32 mm	7 mm	approx. 6 kg
S302-06/10/xx-1xx/xx-xx	680 mm	245 mm	145 mm	32 mm	7 mm	approx. 12 kg
S302-06/16/xx-1xx/xx-xx	960 mm	300 mm	145 mm	40 mm	9 mm	approx. 19 kg
S302-06/25/xx-1xx/xx-xx	1500 mm	400 mm	165 mm	40 mm	9 mm	approx. 34 kg
<b>7 digits</b>						
S302-07/06/xx-1xx/xx-xx	510 mm	185 mm	110 mm	32 mm	7 mm	approx. 7 kg
S302-07/10/xx-1xx/xx-xx	870 mm	245 mm	145 mm	32 mm	7 mm	approx. 14 kg
S302-07/16/xx-1xx/xx-xx	1100 mm	300 mm	145 mm	40 mm	9 mm	approx. 21 kg
S302-07/25/xx-1xx/xx-xx	1730 mm	400 mm	165 mm	40 mm	9 mm	approx. 40 kg
<b>8 digits</b>						
S302-08/06/xx-1xx/xx-xx	510 mm	185 mm	110 mm	32 mm	7 mm	approx. 7 kg
S302-08/10/xx-1xx/xx-xx	870 mm	245 mm	145 mm	32 mm	7 mm	approx. 14 kg

### Units with double-sided display

The following figure shows unit version S302-04/10/4x-2xx/xx-xx, representing the other unit versions listed in the following table.

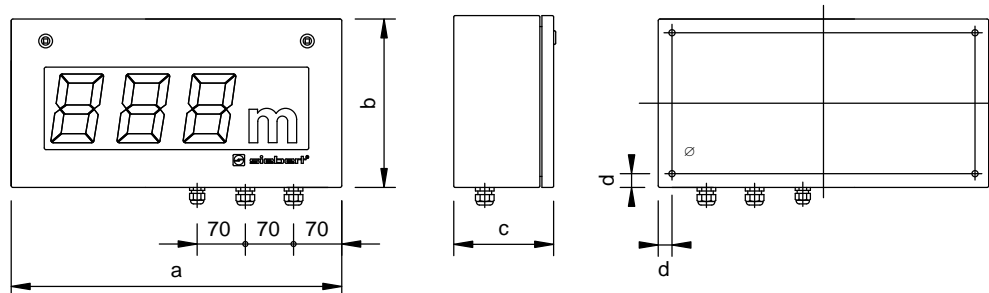


Units with character height of 57 mm (S302-xx/06/xx-2xx/xx-xx) are provided with 2 eyes instead of 4

1 digit	a	b	c	Weight
S302-01/10/xx-2xx/xx-xx	330 mm	245 mm	240 mm	approx. 11 kg
S302-01/16/xx-2xx/xx-xx	390 mm	300 mm	240 mm	approx. 14 kg
S302-01/25/xx-2xx/xx-xx	570 mm	400 mm	270 mm	approx. 24 kg
<b>2 digits</b>				
S302-02/06/xx-2xx/xx-xx	300 mm	185 mm	150 mm	approx. 9 kg
S302-02/10/xx-2xx/xx-xx	330 mm	245 mm	240 mm	approx. 11 kg
S302-02/16/xx-2xx/xx-xx	390 mm	300 mm	240 mm	approx. 14 kg
S302-02/25/xx-2xx/xx-xx	570 mm	400 mm	270 mm	approx. 23 kg
<b>3 digits</b>				
S302-03/06/xx-2xx/xx-xx	300 mm	185 mm	150 mm	approx. 9 kg
S302-03/10/xx-2xx/xx-xx	480 mm	245 mm	240 mm	approx. 15 kg
S302-03/16/xx-2xx/xx-xx	670 mm	300 mm	240 mm	approx. 21 kg
S302-03/25/xx-2xx/xx-xx	1030 mm	400 mm	270 mm	approx. 36 kg
<b>4 digits</b>				
S302-04/06/xx-2xx/xx-xx	300 mm	185 mm	150 mm	approx. 9 kg
S302-04/10/xx-2xx/xx-xx	480 mm	245 mm	240 mm	approx. 16 kg
S302-04/16/xx-2xx/xx-xx	670 mm	300 mm	240 mm	approx. 23 kg
S302-04/25/xx-2xx/xx-xx	1030 mm	400 mm	270 mm	approx. 39 kg
<b>5 digits</b>				
S302-05/06/xx-2xx/xx-xx	400 mm	185 mm	150 mm	approx. 10 kg
S302-05/10/xx-2xx/xx-xx	680 mm	245 mm	240 mm	approx. 20 kg
S302-05/16/xx-2xx/xx-xx	960 mm	300 mm	240 mm	approx. 30 kg
S302-05/25/xx-2xx/xx-xx	1500 mm	400 mm	270 mm	approx. 54 kg
<b>6 digits</b>				
S302-06/06/xx-2xx/xx-xx	400 mm	185 mm	150 mm	approx. 11 kg
S302-06/10/xx-2xx/xx-xx	680 mm	245 mm	240 mm	approx. 20 kg
S302-06/16/xx-2xx/xx-xx	960 mm	300 mm	240 mm	approx. 32 kg
S302-06/25/xx-2xx/xx-xx	1500 mm	400 mm	270 mm	approx. 56 kg
<b>7 digits</b>				
S302-07/06/xx-2xx/xx-xx	510 mm	185 mm	150 mm	approx. 12 kg
S302-07/10/xx-2xx/xx-xx	870 mm	245 mm	240 mm	approx. 22 kg
S302-07/16/xx-2xx/xx-xx	1100 mm	300 mm	240 mm	approx. 36 kg
S302-07/25/xx-2xx/xx-xx	1730 mm	400 mm	270 mm	approx. 67 kg
<b>8 digits</b>				
S302-08/06/xx-2xx/xx-xx	510 mm	185 mm	150 mm	approx. 12 kg
S302-08/10/xx-2xx/xx-xx	870 mm	245 mm	240 mm	approx. 24 kg

## Units with one-sided display and dimension symbol

The following figure shows unit version S302-F3/10/4x-1xx/xx-xx, representing the other unit versions listed in the following table.

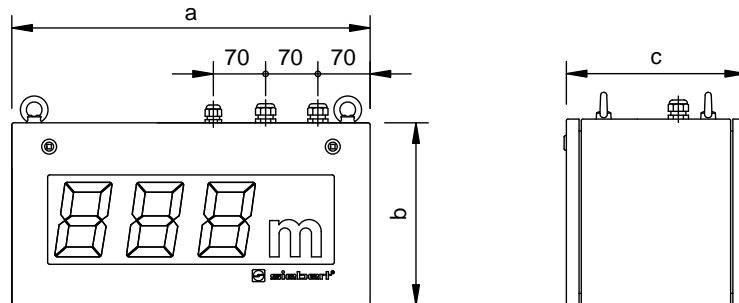


1 digit + dimension	a	b	c	d	Ø	Weight
S302-F1/10/xx-1xx/xx-xx	330 mm	245 mm	145 mm	32 mm	7 mm	approx. 7 kg
S302-F1/16/xx-1xx/xx-xx	390 mm	300 mm	145 mm	40 mm	9 mm	approx. 9 kg
S302-F1/25/xx-1xx/xx-xx	570 mm	400 mm	165 mm	40 mm	9 mm	approx. 14 kg
<b>2 digits + dimension</b>						
S302-F2/06/xx-1xx/xx-xx	300 mm	185 mm	110 mm	32 mm	7 mm	approx. 5 kg
S302-F2/10/xx-1xx/xx-xx	480 mm	245 mm	145 mm	32 mm	7 mm	approx. 7 kg
S302-F2/16/xx-1xx/xx-xx	670 mm	300 mm	145 mm	40 mm	9 mm	approx. 12 kg
S302-F2/25/xx-1xx/xx-xx	1030 mm	400 mm	165 mm	40 mm	9 mm	approx. 21 kg
<b>3 digits + dimension</b>						
S302-F3/06/xx-1xx/xx-xx	300 mm	185 mm	110 mm	32 mm	7 mm	approx. 5 kg
S302-F3/10/xx-1xx/xx-xx	480 mm	245 mm	145 mm	32 mm	7 mm	approx. 9 kg
S302-F3/16/xx-1xx/xx-xx	670 mm	300 mm	145 mm	40 mm	9 mm	approx. 13 kg
S302-F3/25/xx-1xx/xx-xx	1030 mm	400 mm	165 mm	40 mm	9 mm	approx. 22 kg
<b>4 digits + dimension</b>						
S302-F4/06/xx-1xx/xx-xx	400 mm	185 mm	110 mm	32 mm	7 mm	approx. 8 kg
S302-F4/10/xx-1xx/xx-xx	680 mm	245 mm	145 mm	32 mm	7 mm	approx. 11 kg
S302-F4/16/xx-1xx/xx-xx	960 mm	300 mm	145 mm	40 mm	9 mm	approx. 18 kg
S302-F4/25/xx-1xx/xx-xx	1500 mm	400 mm	165 mm	40 mm	9 mm	approx. 32 kg
<b>5 digits + dimension</b>						
S302-F5/06/xx-1xx/xx-xx	400 mm	185 mm	110 mm	32 mm	7 mm	approx. 6 kg
S302-F5/10/xx-1xx/xx-xx	680 mm	245 mm	145 mm	32 mm	7 mm	approx. 11 kg
S302-F5/16/xx-1xx/xx-xx	960 mm	300 mm	145 mm	40 mm	9 mm	approx. 19 kg
S302-F5/25/xx-1xx/xx-xx	1500 mm	400 mm	165 mm	40 mm	9 mm	approx. 33 kg
<b>6 digits + dimension</b>						
S302-F6/06/xx-1xx/xx-xx	510 mm	185 mm	110 mm	32 mm	7 mm	approx. 8 kg
S302-F6/10/xx-1xx/xx-xx	870 mm	245 mm	145 mm	32 mm	7 mm	approx. 13 kg
S302-F6/16/xx-1xx/xx-xx	1100 mm	300 mm	145 mm	40 mm	9 mm	approx. 21 kg
S302-F6/25/xx-1xx/xx-xx	1730 mm	400 mm	165 mm	40 mm	9 mm	approx. 34 kg
<b>7 digits + dimension</b>						
S302-F7/06/xx-1xx/xx-xx	510 mm	185 mm	110 mm	32 mm	7 mm	approx. 8 kg
S302-F7/10/xx-1xx/xx-xx	870 mm	245 mm	145 mm	32 mm	7 mm	approx. 13 kg



### Units with double-sided display and dimension symbol

The following figure shows unit version S302-F3/10/4x-2xx/xx-xx, representing the other unit versions listed in the following table.



Units with character height of 57 mm (S302-xx/06/xx-2xx/xx-xx) are provided with 2 eyes instead of 4

1 digit + dimension	a	b	c	Weight
S302-F1/10/xx-2xx/xx-xx	330 mm	245 mm	145 mm	approx. 11 kg
S302-F1/16/xx-2xx/xx-xx	390 mm	300 mm	145 mm	approx. 13 kg
S302-F1/25/xx-2xx/xx-xx	570 mm	400 mm	165 mm	approx. 21 kg
<b>2 digits + dimension</b>				
S302-F2/06/xx-2xx/xx-xx	300 mm	185 mm	110 mm	approx. 9 kg
S302-F2/10/xx-2xx/xx-xx	480 mm	245 mm	145 mm	approx. 15 kg
S302-F2/16/xx-2xx/xx-xx	670 mm	300 mm	145 mm	approx. 20 kg
S302-F2/25/xx-2xx/xx-xx	1030 mm	400 mm	165 mm	approx. 34 kg
<b>3 digits + dimension</b>				
S302-F3/06/xx-2xx/xx-xx	300 mm	185 mm	110 mm	approx. 9 kg
S302-F3/10/xx-2xx/xx-xx	480 mm	245 mm	145 mm	approx. 15 kg
S302-F3/16/xx-2xx/xx-xx	670 mm	300 mm	145 mm	approx. 22 kg
S302-F3/25/xx-2xx/xx-xx	1030 mm	400 mm	165 mm	approx. 37 kg
<b>4 digits + dimension</b>				
S302-F4/06/xx-2xx/xx-xx	400 mm	185 mm	110 mm	approx. 10 kg
S302-F4/10/xx-2xx/xx-xx	680 mm	245 mm	145 mm	approx. 21 kg
S302-F4/16/xx-2xx/xx-xx	960 mm	300 mm	145 mm	approx. 30 kg
S302-F4/25/xx-2xx/xx-xx	1500 mm	400 mm	165 mm	approx. 52 kg
<b>5 digits + dimension</b>				
S302-F5/06/xx-2xx/xx-xx	400 mm	185 mm	110 mm	approx. 11 kg
S302-F5/10/xx-2xx/xx-xx	680 mm	245 mm	145 mm	approx. 22 kg
S302-F5/16/xx-2xx/xx-xx	960 mm	300 mm	145 mm	approx. 32 kg
S302-F5/25/xx-2xx/xx-xx	1500 mm	400 mm	165 mm	approx. 54 kg
<b>6 digits + dimension</b>				
S302-F6/06/xx-2xx/xx-xx	510 mm	185 mm	110 mm	approx. 13 kg
S302-F6/10/xx-2xx/xx-xx	870 mm	245 mm	145 mm	approx. 24 kg
S302-F6/16/xx-2xx/xx-xx	1100 mm	300 mm	145 mm	approx. 37 kg
S302-F6/25/xx-2xx/xx-xx	1730 mm	400 mm	165 mm	approx. 65 kg
<b>7 digits + dimension</b>				
S302-F7/06/xx-2xx/xx-xx	510 mm	185 mm	110 mm	approx. 13kg
S302-F7/10/xx-2xx/xx-xx	870 mm	245 mm	145 mm	approx. 25 kg