

# **Mono 20**

Assembly and operating instructions  
USA & CANADA

**visplay**

These instructions facilitate the safe and effective use of the “Mono 20 ” product.

These instructions are part of the product and must be kept safely and in easy reach from the product at all times.

All persons who use or handle this product must have read these instructions. Observance of all the safety and handling instructions given in these instructions are a prerequisite for safe working.

The figures in these instructions serve for general understanding and may differ from the actual version.

All dimensions in these instructions are given in **millimeters** and inches.

### Quality assurance

All processes in our company are subject to a comprehensive management system, which conforms to the quality standard ISO 9001 and the environmental standard ISO 14001.

The management system is regularly inspected by the Zertifizierungs- und Umweltgutachter GmbH (BSI), which documents conformance to the standards by a certificate.

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Our General Terms and Conditions of Sale and Supply are valid for all orders.

Mono 20 is approved by the Underwriter Laboratories Inc.



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## 1 Safety

### 1.1 Explanation of symbols

Safety instructions are marked as follows in these instructions.

#### ⚠ WARNING

A safety instruction marked in this manner indicates a possible dangerous situation, which if not prevented may result in death or severe injury.

#### ⚠ NOTE

A safety instruction marked in this manner indicates a possible dangerous situation, which if not prevented may result in damage to property and the environment.

### 1.2 Intended use

The product is used exclusively for mounting merchandise supports, on which goods are presented. Merchandise supports permitted for this purpose are exclusively those that conform to the specification in these instructions.

#### Field of application

The product must be used exclusively in the commercial field.

#### Personnel

These instructions describe the assembly of the holder set as well as its handling and cleaning. Therefore these instructions must be handed on to the end user after assembly of the holder set.

The contents of the section on "Assembly" is directed at personnel, who undertake the assembly of the holder sets (e.g. shop fitters).

The contents of the section on "Handling" is directed at the end users (e.g. sales personnel, visual merchandisers).

#### ⚠ WARNING

**In the event of misuse, there is a danger that the merchandise supports will be damaged or fall. This may lead to injury and damage to the product.**

- > Use only approved accessories.
- > Comply with the maximum permitted load values.
- > Do not lean any ladders against the merchandise supports.

### 1.3 Fundamental dangers

#### ⚠ WARNING

- > Do not load the merchandise supports above the maximum load capacity.
- > Do not place any receptacles, from which fluids can escape, on the merchandise supports.
- > Keep moisture away from current conducting components.

## 2 Product description

### 2.1 Overview

Mono 20 is a support system that can be selectively aligned for mounting display supports on which products are presented.

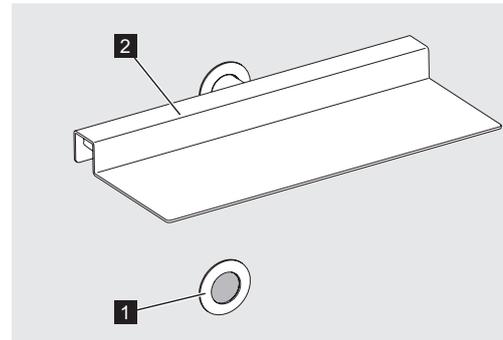


Fig. 1: Mono 20

### 2.2 Brief description

Contained in the electrified Mono 20 holder set (Fig. 1/1) is a power element, through which low voltage power can flow. This allows the use of shelves (Fig. 1/2) with integrated light fittings for additional illumination of the positioned goods.

The merchandise supports must be obtained from the manufacturer. The electrical devices must conform to the specification given in these instructions. One merchandise support can be hung per holder set.

#### Holder sets

The holder sets serve for mounting of the merchandise support. They are available in the following versions:

- Mono 20 holder set with power cable, electrified (Fig. 2/A) with separate cover clip.
- Mono 20 holder set, non-electrified (Fig. 2/B), with separate cover clip.
- Mono 20 light holder set with power cable, electrified (Fig. 2/C) with separate cover clip.
- Mono 20 light holder set, non-electrified (Fig. 2/D), with separate cover clip.

**NOTE! Non-electrified merchandise supports can be pushed into electrified holder sets without any problems.**

For the holder mounting in wood see section 3.4.1 on page 6.

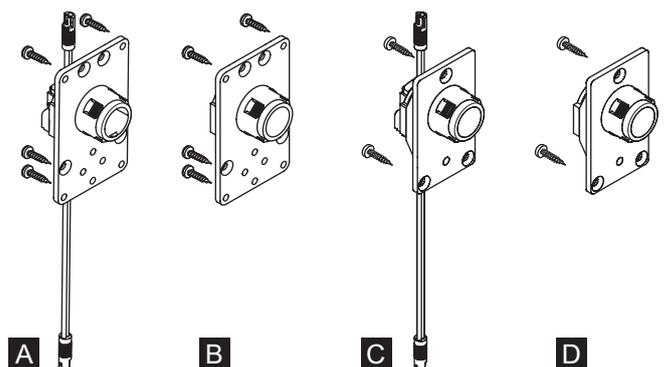


Fig. 2: Version of the various holder sets

## Power supply

The power element integrated in the holder set is supplied with power from a converter. This converts the mains power from 120 – 240 V AC to 24 V DC.

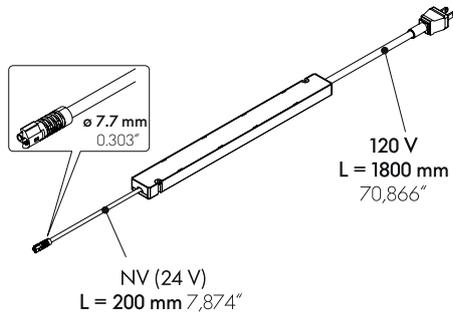


Fig. 3: Converter 24 V

For an overview of the electrical connection of the holder sets and the associated components see the section on Electrification 3.5 on page 7.

## 2.3 Scope of supply and accessories

### 2.3.1 Electrical connection set

The electrical connection set is a standard part of the electrified holder set. It serves for retrospective electrical connection of existing non-electrified Mono 20 holder sets.

Included in the electrical connection set is the electrical connection with the power cable (Fig. 4/1) and 2 counter-sunk fixing screws M5 x 16 Torx (Fig. 4/2).

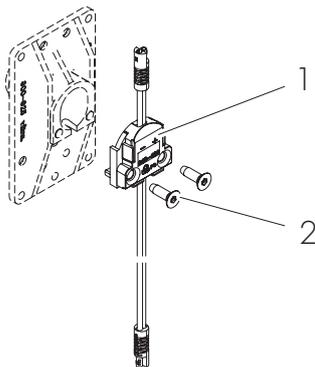


Fig. 4: Electrical connection set for non-electrified holder sets

For mounting the electrical connection set see section 3.4.2 on page 6

### 2.3.2 Cover clip



Fig. 5: Cover clip

The cover clip must be ordered separately.

### 2.3.3 Merchandise supports

The merchandise supports are used for displaying goods. Merchandise supports can have different shapes.

Examples of merchandise supports available:

- Hanging arms, straight
- Shoe shelves
  - for a single shoe or a pair
  - electrified or non-electrified
- Mounting bracket for wooden or glass shelf
- Support bar in connection with mounting bracket
- Single support bar

Further information on the individual merchandise supports as well as the specific product descriptions can be found in the product catalogue.

### Mounting brackets and shelves

Mounting brackets are for mounting support bars or shelves.

Shelves are trays or racks made of wood or glass. Drawings for producing shelves suitable for standard mounting brackets can be obtained from the manufacturer.

#### 2.3.4 Hanger sets for wooden panels, etc.

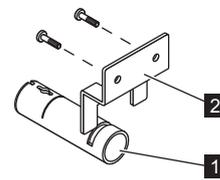


Fig. 6: Hanger sets for wooden panels

Instead of merchandise supports, wooden panels and placards, etc., can be fixed in the holder set with a hanger set. This consists of hanger adapter (Fig. 6/1) and hanger bracket (Fig. 6/2).

- Maximum load: **20 kg** ▶ 44 lbs

### 3 Assembly

**⚠ WARNING**

The system can fail if assembly is not carried out correctly or the base cannot support the necessary load. There is a danger of injury from goods or merchandise supports falling down.

- > Note and comply with all the following instructions on assembly.
- > Make sure that the base is suitable for the expected loads.

#### 3.1 Unpacking

Immediately on receipt, check the delivery is complete and intact.

If transport damage is noted, proceed as follows:

- Do not accept delivery or only under reservation.
- Make a note of the extent of the damage on the transport documents or the delivery note of the transport company.
- Initiate a complaint.

#### Packaging

The product is securely packed so that transport damage is unlikely.

- Store original packaging for subsequent transport.
- Only send product in original packaging.
- Take note of all instructions which are given on the packaging.

#### Disposing of packaging materials

If the packaging materials are no longer required, dispose of them according to local disposal regulations.

### 3.2 Requirements of installation location

The installation location must comply with the following requirements:

- The installation location must be dry. Construction outdoors is not permitted.
- The base (walls, columns, etc.) must be designed for and able to support the loads to be borne.
- The base must be level in order that the holder sets are fully supported after mounting.

### 3.3 Reinforcing of panels

The panels, in which the holder sets are mounted, must be reinforced. Otherwise the panels, together with the mounted holder sets, may buckle and break.

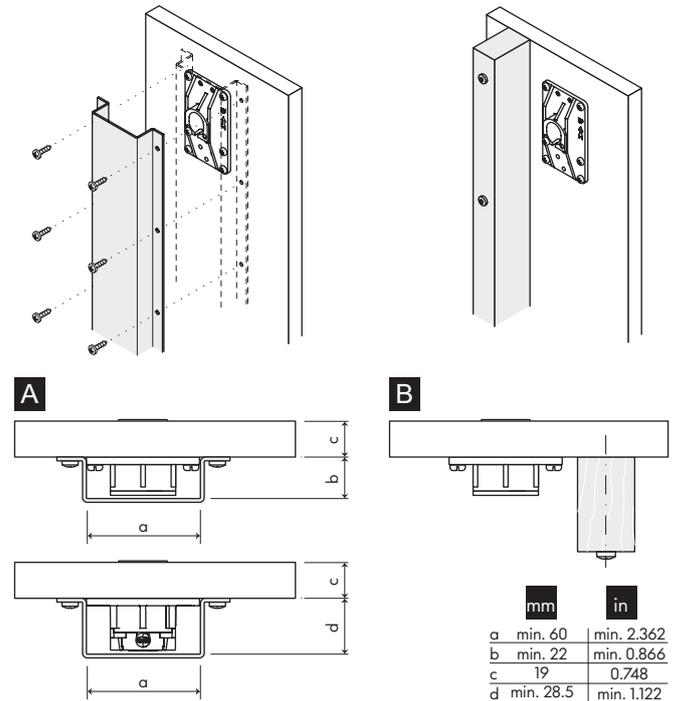


Fig. 7: Back panel reinforcement

Possible reinforcements:

- Angle sections (Fig. 7/A). Take note of the different heights of the holder sets (whether electrified or non-electrified).
- Wooden ribs (Fig. 7/B)
- Screw reinforcement on to the rear side of the panels and additionally glue wooden ribs. Make sure that the panels are supported evenly.

### 3.4 Mounting

**⚠ WARNING**

If fixing points are left out, the load carrying capacity of the holder sets provided for will not be achieved.

- > Use all fixing points of the holder sets.
- > Ensure the correct alignment of the holder sets.

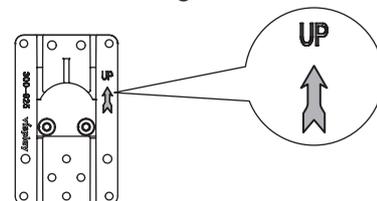


Fig. 8: Correct alignment of the holder sets

The fixing points, on which the holder sets are to be screwed, are prepared. The holder set is marked on the rear side with an arrow and the marking "UP" (Fig. 8).

### 3.4.1 Mounting holder set on wood

When using the fixings supplied, the holder set must only be mounted on wooden panels that are **19 mm ▶0.630"** thick.

The holder sets can be used both with or without the cover clip. Pay attention to the different milled form.

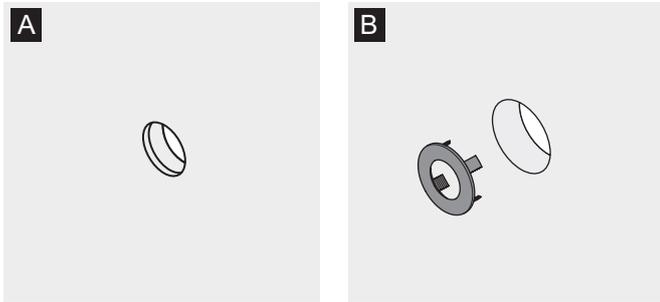


Fig. 9: Milled form without (a) and with cover clip (B)

Mounting for the non-electrified holder sets (Fig. 10/A) is identical to mounting for the electrified holder sets (Fig. 10/B).

1. Arrange for wooden panels with a milled form (see 6.1 on page 9) to be fabricated by a specialist works.

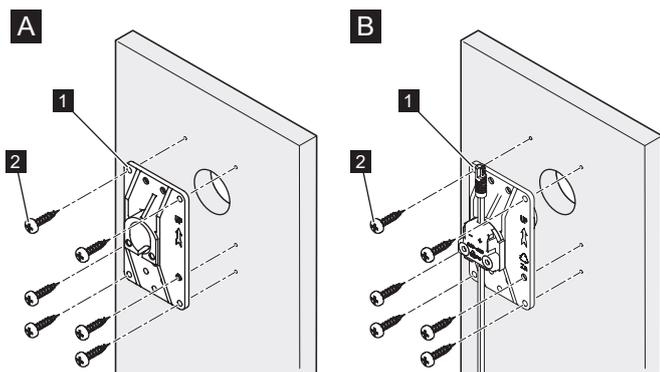


Fig. 10: Mounting on wooden panel

2. Apply holder set (Fig. 10/1).
3. Screw the wood screws (Fig. 10/2), through the holes provided in the holder set, into the panel and tighten to 3 Nm.
  - ➔ The holder set is fixed.

### Attaching cover clip

If the version with cover clip has been selected, the cover clip must finally be attached after mounting the holder set.

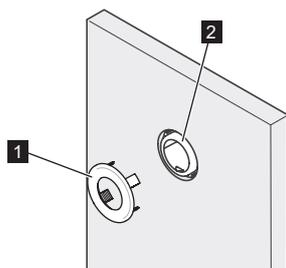


Fig. 11: Attaching cover clip

- Place the cover clip (Fig. 11/1) on the holder set (Fig. 11/2).

### 3.4.2 Holder sets to be retrospectively electrified

By using the electrical connection set 332-259.19, a non-electrified holder set (Fig. 12/A) can be retrospectively electrified (Fig. 12/B). The holder set does not need to be dismantled from the wooden panel for this procedure. Access to the back of the panel, however, must be ensured.

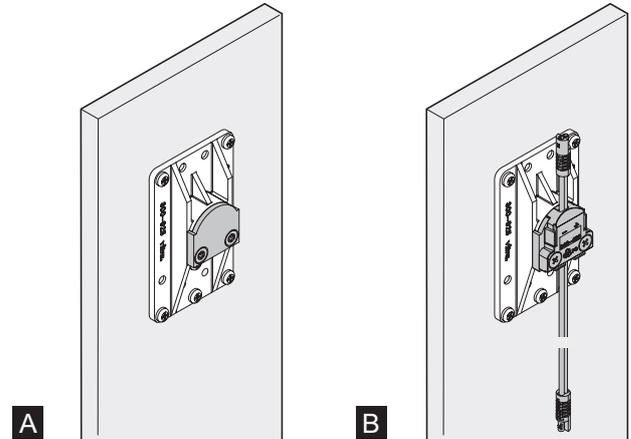


Fig. 12: Holder set, non-electrified (A) and electrified (B)

### Removing cover panel

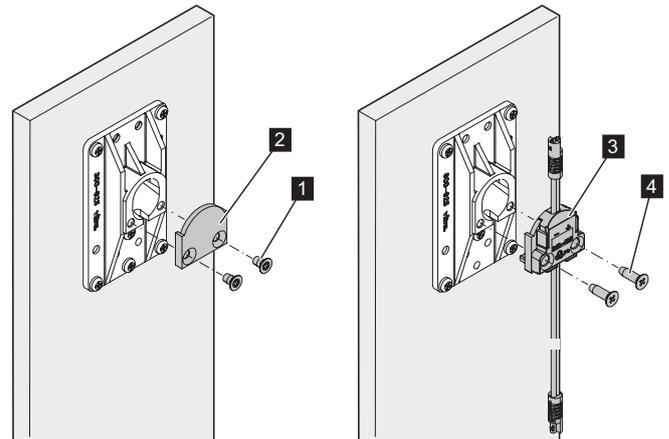


Fig. 13: Unscrewing cover panel

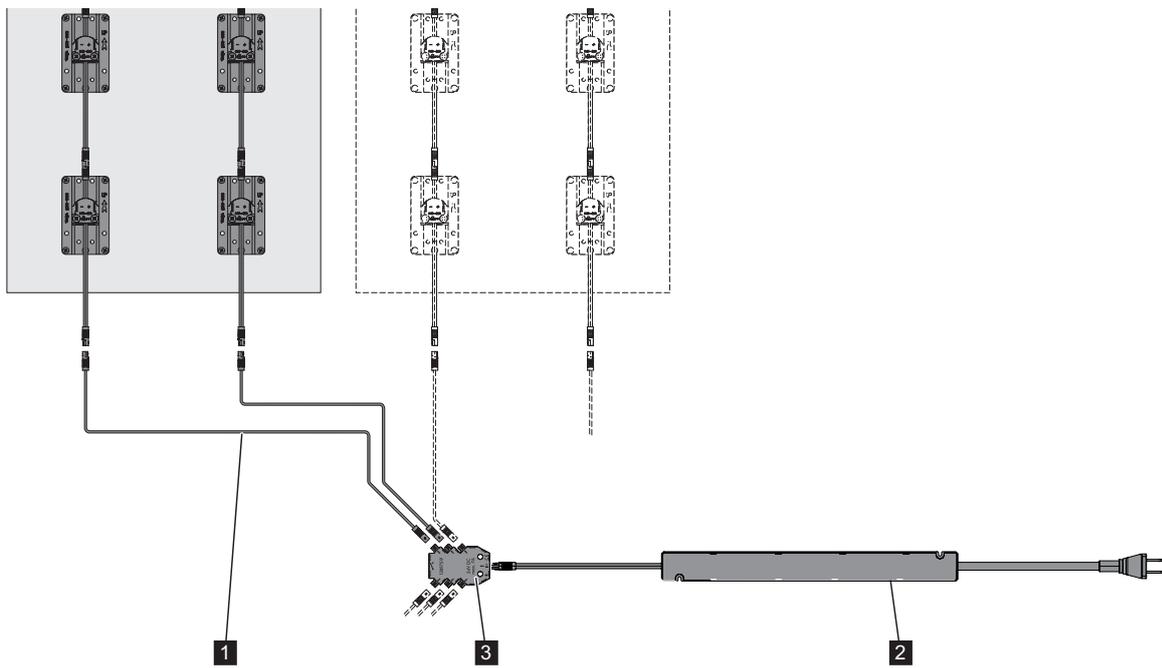
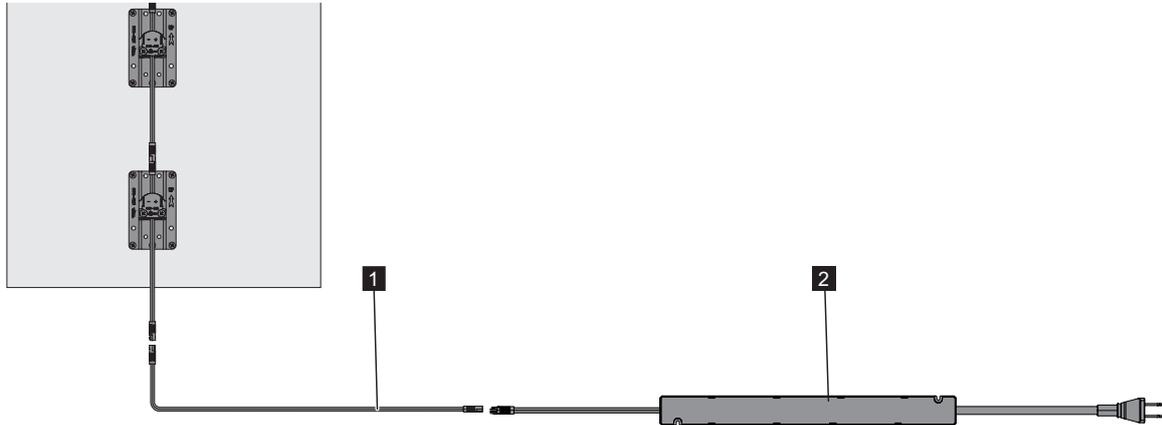
1. Loosen both screws (Fig. 13/1) with a Torx screwdriver. The screws and cover panel (Fig. 13/2) are no longer required and can be disposed of.
2. Fix the electrical connection set (Fig. 13/3) with the supplied countersunk screws (Fig. 13/4) to the holder set.
  - ➔ The holder set is electrified and can now be connected to the power supply.

### 3.5 Visplay plug system

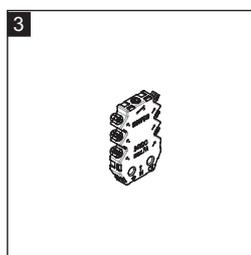
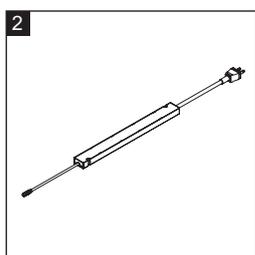
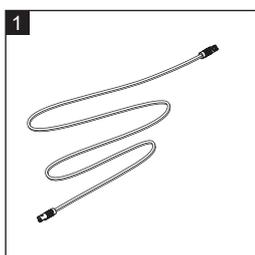
**⚠ NOTE**

It is imperative to take account of power consumption of the electrical devices! The maximum power consumption should be 10% below the nominal output rating of the converter.

#### Powering with 90 W converter



- 1 Extension cable 24 V
- 2 90 W LED converter
- 3 24 V distributor, 6 way - optional



## 4 Operation

### **⚠ WARNING**

**Injury can be caused and the merchandise supports and/or system can be damaged if the maximum load of the merchandise supports is exceeded.**

- > **Observe the maximum load values of the individual merchandise supports.**
- > **Do not exceed the maximum load of 40 kg ▶ 88 lbs per holder set.**

### 4.1 Attaching merchandise support

To insert the merchandise support, proceed as follows.

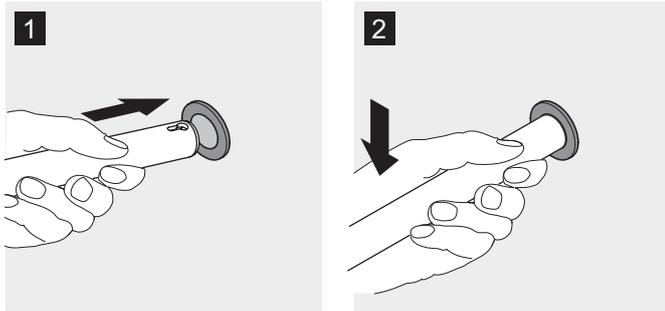


Fig. 14: Inserting merchandise support

1. Feed the merchandise support with a slight upward angle into the hole of the holder set up to the stop (Fig. 14/1), and then lower (Fig. 14/2).
2. Make sure that the merchandise support is correctly engaged in the holder set.
  - ➔ The merchandise support is securely fixed. It has a slight slope (approx. 1.5°).
3. Place goods evenly on the merchandise support and ensure that the maximum load is not exceeded. All load values are inclusive of the weight of the merchandise support.

### 4.2 Removing merchandise support

To remove the merchandise support, proceed as follows:

1. Remove goods from the merchandise support.
2. If a shelf is used, remove the shelf from the mounting bracket.

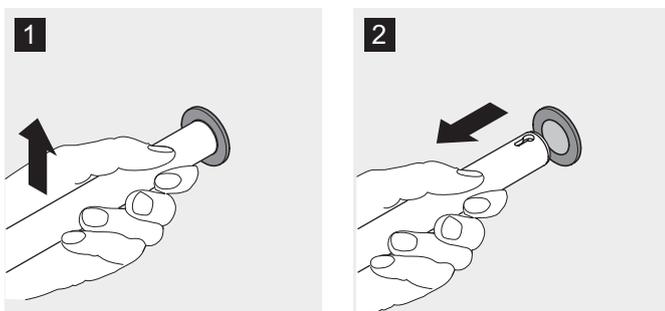


Fig. 15: Removing merchandise support

3. Slightly lift up the merchandise support/mounting bracket (Fig. 15/1) and pull away from the holder set (Fig. 15/2).
  - ➔ The merchandise support comes away from the holder set.

## 4.3 Cleaning

During the course of time, dust and deposits from clothes hangers can settle on the merchandise supports. In order that the goods on display do not become soiled, the merchandise supports must be regularly cleaned.

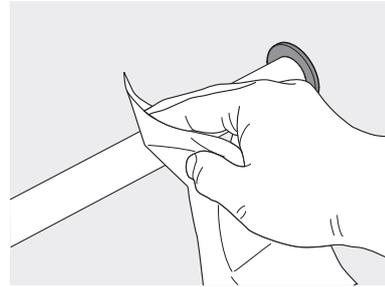


Fig. 16: Cleaning

1. Remove goods from the merchandise support.
2. Remove dirt on the merchandise support carefully with a soft, dry cloth (Fig. 16).
3. Remove stubborn dirt with a mild cleaning agent.

## 5 Dismantling and disposal

### 5.1 Dismantling

To dismantle the holder set, proceed as follows:

1. Remove goods from the merchandise supports.
2. Remove all merchandise supports (see section 4.2 on page 8).

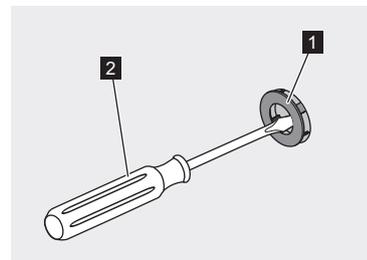


Fig. 17: Levering off cover clip

3. Lever off cover clip (Fig. 17/1) with a small slotted screwdriver (Fig. 17/2). The cover clip cannot be reused and must be replaced.
4. Unscrew screws.
5. Take off holder set.

### 5.2 Disposal

#### **⚠ NOTE**

**If product components are improperly disposed of they can pose a danger to the environment.**

- > **Ensure product components are disposed of in a proper environmental manner or through waste management specialists.**
- > **Send components that can be recycled for recycling.**

#### **Disposal rules**

Dispose of product components in line with the following principles:

- Send steel for recycling or scrapping.
- Send aluminium for recycling or scrapping.
- Send die cast zinc for recycling or scrapping.
- Send plastics for recycling.
- Dispose of remaining components sorted according to the type of material.

## 6 Technical data

### 6.1 Dimensions

#### 6.1.1 Installed dimensions, holder set

##### Mono 20

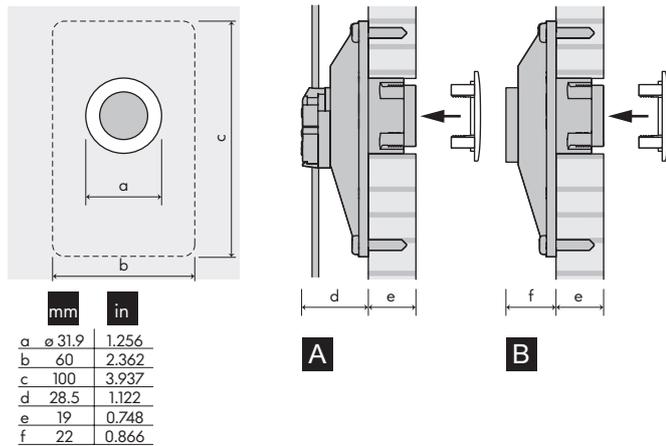


Fig. 18: Mono 20 with power cable (A) / non-electrified (B)

##### Mono 20 light

#### Installed dimensions, non-electrified holder set

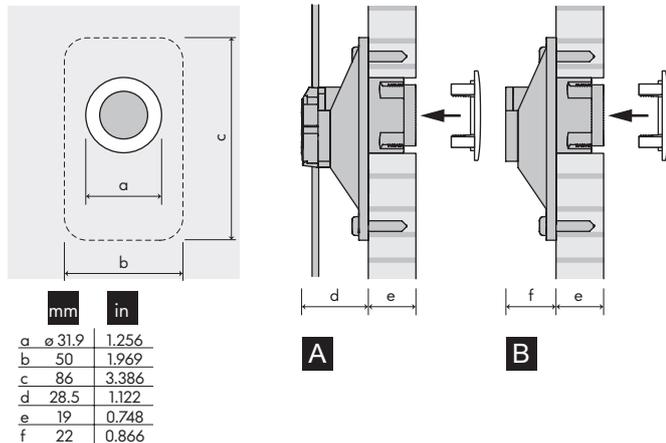


Fig. 19: Mono 20 light with power cable (A) / non-electrified (B)

#### 6.1.2 Milled form for holder set with cover clip

##### Mono 20

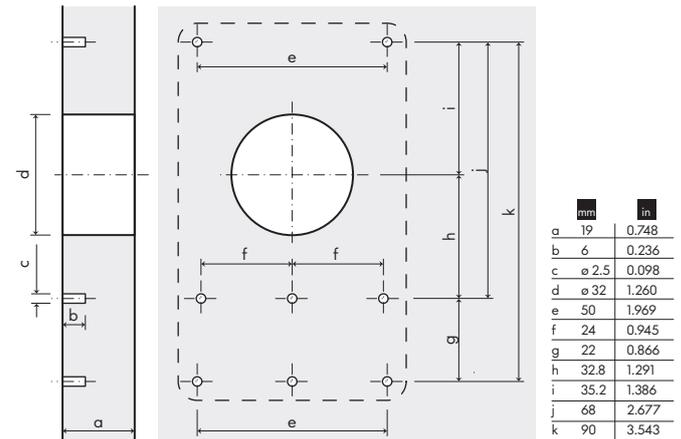


Fig. 20: Mono 20 with cover clip

##### Mono 20 light

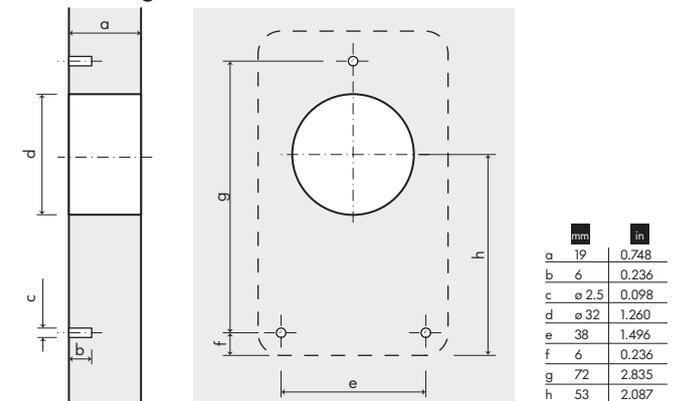


Fig. 21: Milled form for Mono 20 light with cover clip

#### 6.1.3 Milled form for holder set without cover clip

##### Mono 20

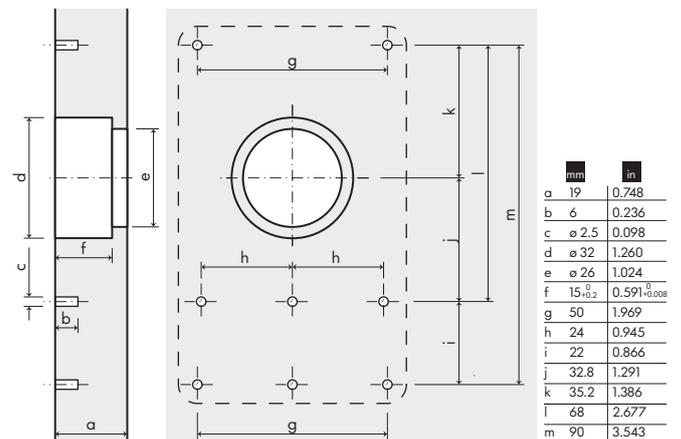


Fig. 22: Mono 20 without cover clip

## Mono 20 light

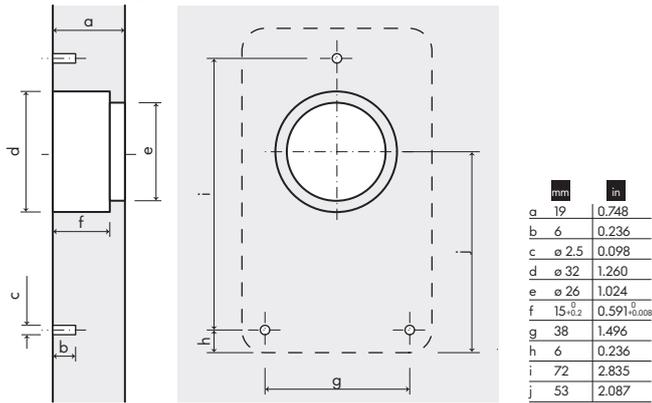


Fig. 23: Mono 20 without cover clip

### 6.1.4 Converter dimensions, power-dependent

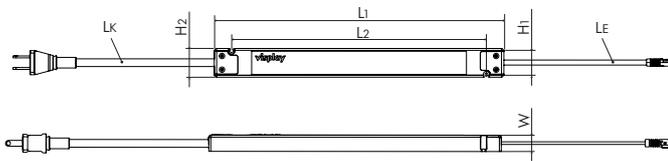


Fig. 24: Converter dimensions, power-dependent

Specification	96 W
Length [L1]	<b>298 mm</b> ▶ 11.732 inches
Length [L2]	<b>262 mm</b> ▶ 10.315 inches
Width [W]	<b>23 mm</b> ▶ 0.906 inches
Height [H1]	<b>16.5 mm</b> ▶ 0.649 inches
Height [H2]	<b>30 mm</b> ▶ 1.181 inches
Length - connecting cable to the infeed [LE]	<b>200 mm</b> ▶ 7.874 inches
Length - power cable [Lk]	<b>1800 mm</b> ▶ 70.866 inches

## 6.2 Connected loads

### General

Specification	Value	Unit
Operating voltage	120–240	V
Frequency	50–60	Hz
Nominal voltage (SELV)	24	V
Nominal current at power connection, maximum	6	A
Mains side protection class; converter 90 W	II	
Maximum housing temperature (converter)	<b>75</b> ▶ 167	°C °F

## 6.3 Load values

The maximum load applies including the dead weight and the weight of all components.

### Holder set

Specification	Value	Unit
Mono 20 holder set	<b>40</b> ▶ 88.185	kg/ lbs/ holder set
Mono 20 light holder set	<b>5</b> ▶ 11.023	kg/ lbs/ holder set

### Merchandise supports

Specification	Value	Unit
Shoe shelf for one shoe	<b>20</b> ▶ 44.092	kg lbs
Shoe shelf for a pair of shoes	<b>20</b> ▶ 44.092	kg lbs
Universal mounting bracket	<b>20</b> ▶ 44.092	kg lbs
Hanger arm Ø 20 mm	<b>20</b> ▶ 44.092	kg lbs
Single support bar Ø 20 mm	<b>15</b> ▶ 33.069	kg lbs
Mounting bracket for support bar Ø 20 mm	<b>15</b> ▶ 33.069	kg lbs
Mounting bracket for wooden or glass shelf	<b>15</b> ▶ 33.069	kg lbs
Mounting bracket for support bar 30 x 15 mm	<b>20</b> ▶ 44.092	kg lbs
Clamping mounting bracket for glass shelf	<b>10</b> ▶ 22.046	kg lbs
Single mounting bracket Ø 20 mm	<b>15</b> ▶ 33.069	kg lbs
Hanger set for wooden panel	<b>20</b> ▶ 44.092	kg lbs
Mounting bracket for wooden shelf	<b>15</b> ▶ 33.069	kg lbs
Hanger hook Ø 6 mm	<b>2</b> ▶ 4.409	kg lbs
Hanger hook Ø 7.5 mm	<b>2</b> ▶ 4.409	kg lbs

### Panel thickness

Specification	Value	Unit
Thickness of wooden panel, maximum	<b>19</b> ▶ 0.748	mm inches