ELMA
Your Solution Partner

Design and compact enclosures

PRODUCT OVERVIEW

SYSTEM SOLUTIONS

ENCLOSURE & COMPONENTS

ROTARY SWITCHES

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The enclosure platforms from Elma are specially designed to meet customer-specific requirements. The excellent design and high quality help customers to optimally position their own products in their markets and to differentiate them visually. This ensures that the high-quality technology of the customer is presented in the desired cover and feel. The enclosure platforms meet standards and norms for numerous areas of application, such as shock, vibration, EMC or IP class.

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THE 19" SYSTEM ENCLOSURE ACCORDING TO IEN60297

Elegant and high-quality design, variable sizes, versatile application options and ideal for 19" applications. The Stylebox 15 e-motion is an enclosure platform built to the IEC60297 standard. Depending on the size, the box can take up to 21 Eurocards in different heights. Thanks to the modular structure, it can also be used as a desktop or tower enclosure or as a 19" rack. Optional handles enable mobile use in the field. In addition, the scalable EMC protection, color and design variants make the Stylebox the first choice for high-end electronics. Except to the mentioned advantages, the versatile system offers a wide range of accessories, enabling opportunities for a large number of applications such as measuring devices or controls.

Main features

› Different sizes available
› Colors: White, silver (other colors on request)
› Customizations possible
› Standard or customized front panels
› Optional scalable EMC shielding
› Optional rear I/Os

Typical applications

› 19" rackmount applications
  (e.g. for IEC or IEEE controller cards)
› Test and measuring devices
› Laboratory or field instruments
› Medical equipment

Construction

› Cover plates screwed to the side
› Front can be optionally equipped with covers, front handles or 19'' mounting brackets
› Installation dimensions comply with the IEC60297 standard
› Clear passivated inner side walls
› Longitudinal profiles colorless passivated
› Top and bottom plates on the contact surfaces are colorfree (large-area contacts for sustainable EMC protection)
› Optional EMC seals for increased EMC protection
› Optional folding feet for use in installation angles
› Optional rear I/Os
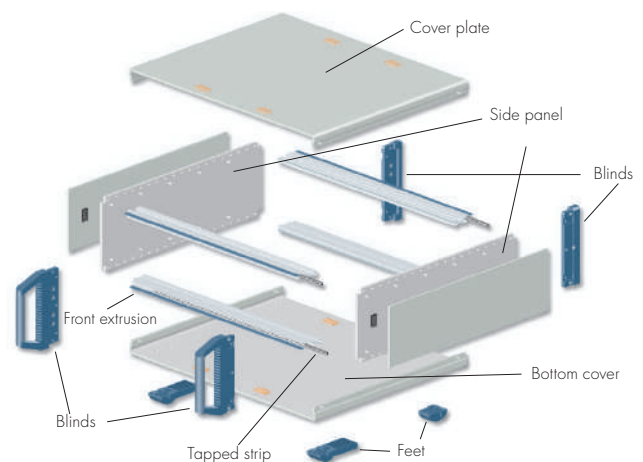
TECHNICAL SPECIFICATIONS

Possible versions
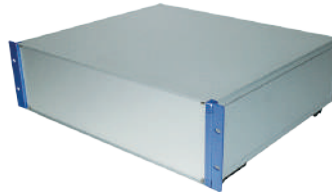
Desktop case without handles
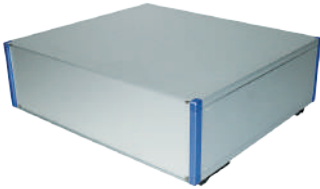
Desktop case with front handles

Portable desktop case

19" case with front handles

19" case without front handles

Sizes

Height	Width		
	42 HP	63 HP	84 HP
2 U			
3 U			
4 U			
6 U			
7 U			

Depth ☐ 245 mm 9.64" ■ 305 mm 12.00" ■ 395 mm 15.55" ■ 500 mm 19.68"

THE VERSATILE ENCLOSURE FOR HIGH-QUALITY ELECTRONIC COMPONENTS

The iD-Box 16 is a versatile enclosure for high-quality electronic components. Since this enclosure platform is independent of standards, it can not only be designed according to the individual wishes of the end customer, it also adapts in size to the application and customer needs.
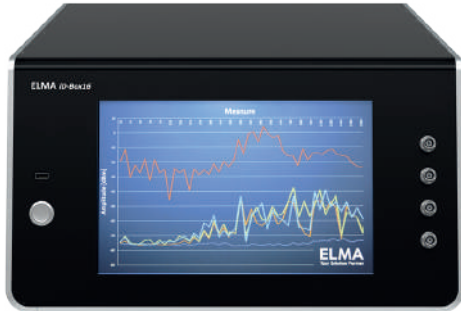
Main features

› High design aesthetics
› Standard independent system
› Customer-specific design fronts and HMI interface
› Ergonomic HMI interface with sloping front
› Selectable dimensions
› Different color combinations
› EMC level: Basic or Advanced
› Flexible mounting options

Typical applications

› Test and measuring devices
› Laboratory instruments
› Medical equipment
› Portable devices
› Control units

EMC protection

EMC protection is scalable depending on customer needs:

› Basic EMC level: Conductively connected enclosure parts, without additional EMC seal
› Advanced EMC level: Adapter plates with EMC contact points for adequate shielding

Cooling

› Thermal analysis: Heat dissipation and stress tests already in the design phase
› Convection cooling: We offer a wide range of built-in fan solutions

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ID-BOX 16

TECHNICAL SPECIFICATIONS

Sizes (mm)

› Height: 130 - 205 mm
› Width: 150 - 450 mm
› Depth: 150 - 500 mm

Colors

Colors can be selected for:

› Floor pan
› Cover
› Stand
› Rear panel
› Front panel

Standard colors are:

› Blue
› Green
› Red
› More colors on request

CUSTOMER-SPECIFIC ADAPTATIONS

The iD-Box 16 offers a wide range of adaptations:

› Sizes
› Colors
› Expansion variants

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SOPHISTICATED DESIGN WITH EXCEPTIONAL FUNCTIONALITY

The design enclosure iD-Case 18 combines an exceptionally functional construction with a sophisticated design. Thanks to its unique construction concept, access to the interior of the box is remarkably easy. The well thought-out design of the iD-Case 18 enables user-friendly operation.

Main features

› Exceptional design and high design aesthetics
› Ergonomic operation
› Four standard sizes
› Different color combinations
› Easily accessible inside the case
› EMC protection: Basic or Advanced

Typical applications

› Test and measuring devices
› Laboratory or field instruments
› Control units

EMC protection

EMC protection is scalable depending on customer needs:

› Basic EMC level: Electrically-connected enclosure parts, without additional gaskets
› Advanced EMC level: Electrically-connected enclosure parts, with contact points ensure adequate shielding

Cooling

› Thermal analysis service: Cooling and loading tests already in the design phase
› Convection cooled: Comprehensive range of built-in fan solutions
› Convection free solutions: We help you to make the right choice

Electronic system integration (interior of the enclosure)

› Installation options directly on the enclosure base
› Use of mounting plates
› Power supply
› Cabling

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TECHNICAL SPECIFICATIONS

Sizes (H x W x D)

› Size XS: 75 x 173 x 253 mm
› Size S: 90 x 208 x 288 mm
› Size M: 110 x 258 x 360 mm
› Size L: 140 x 308 x 450 mm

Colors

Colors can be selected for:

› Floor pan
› cover
› Backplate
› Front | stirrup

Standard colors are:

› Pastel orange
› White green
› Pastel blue
› Light gray (only for front and stirrup)
› Traffic white (only for front and stirrup)
› Other colors on request

## CUSTOMER-SPECIFIC ADAPTATIONS

Customizations are possible on request.

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THE PRACTICAL ENCLOSURE WITH AN EXCELLENT DESIGN

The perfect packaging makes electronics even more pleasant! Compact Case 20 combines flexibility, practicality and intelligent design. The enclosure is available in four different sizes and three different finishing options. Optionally also with EMC protection.
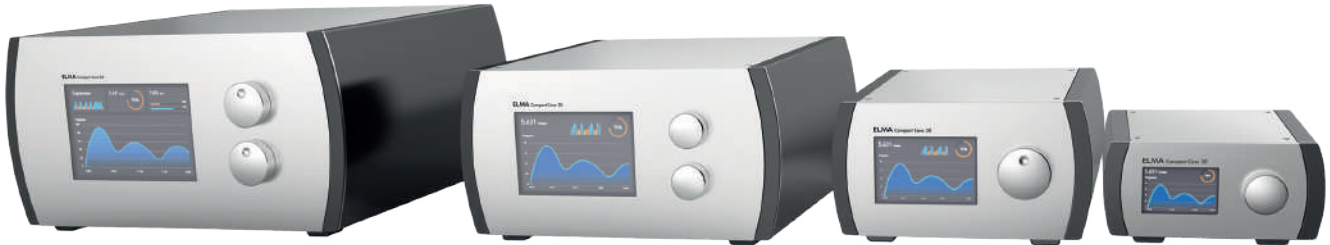
Main features

› Attractive design
› Aluminum sheet enclosure
› Extruded black anodized side panels, silver plates
› Four standard sizes with different depths
› Standard, comfort and rugged versions
› Only one type and size of screw
› Rugged version with covers made of elastomer, NBR 80 shore (RAL9005)
› Optional EMC protection
› Stackable

Typical applications

› Test and measuring devices
› Medical equipment
› Audio and studio equipment
› Applications in harsh environments

EMC protection

Optional versions with EMC shield are available to increase EMC protection.
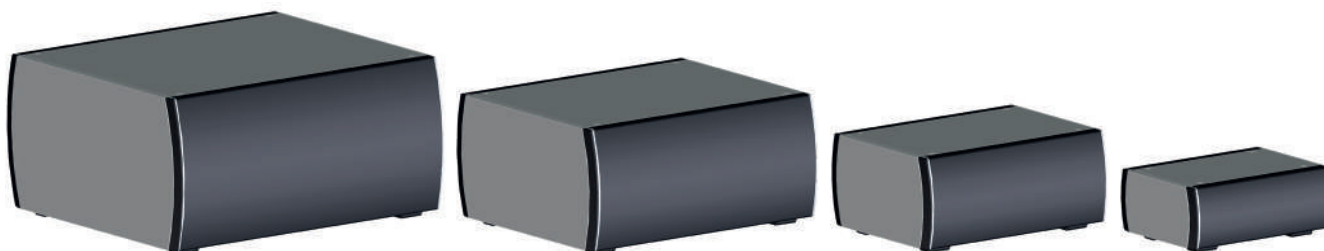
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TECHNICAL SPECIFICATIONS

Sizes

The depth is variable between 150 and 300 mm (in 10 mm steps). Width x height are available in four standard versions:

› 130 x 60 x 150 mm
› 170 x 90 x 200 mm
› 240 x120 x 250 mm
› 300 x150 x 300 mm
› Other sizes on request

Colors

You receive your Compact Case 20 in aluminum, silver with black anodized side wall profiles. Customizations are possible on request.

Possible versions

› As a basic enclosure - simple and practical
› With 2 plastic covers in PC | ABS1 - for higher comfort
› With 4 rugged covers in elastomers - for heavy duty use
› Optionally with increased EMC protection (Superior level)

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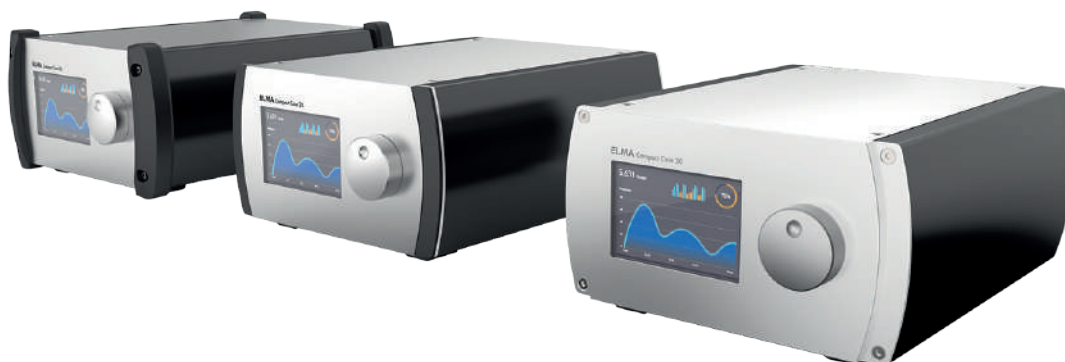
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[1] PC: Polycarbonat
   ABS: Acrylnitril-Butadien-Styrol

THE PLASTIC ENCLOSURE IN CUSTOMER-SPECIFIC FORM

Elma supplies individual plastic enclosures that can be manufactured without enclosure-specific tooling. This innovative manufacturing process does not require expensive molding tools. Therefore, prototypes are available quickly and in serial production - all at low initial costs.

Main features

› No molding or tooling costs
› Development, design and engineering
› Prototypes can be delivered in a short time
› Customer-specific enclosures from small quantities
› EMC protection possible
› Adjustments are usually possible without great expense and in a short time
› From prototypes to series production

Typical applications

› Desktop case
› Wall enclosure
› Monitor enclosure
› Control panel
› Laboratory enclosure
› Control units

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TECHNICAL SPECIFICATIONS

Versions

All Shapebox 22 products are customized. There are not based on any specific standards.

› Any shapes possible
› Base material plastic (polystyrene) with thickness 2, 3, 4, 6, 8, 10 mm
› Operating temperature between -30 and +80 °C
› EMC protection possible
› Different surface textures possible

Colors

› All RAL colors possible

SERVICES

› Enclosure design: Plastic enclosure according to your functional requirements
› Development and construction: Development of the best technical solutions
› Surface treatment: Plastic plate, surface coating for special environmental requirements, engravings,
› Screen, tampon and hot stamping processes, digital printing and / or surface flocking,
  as well as individual motifs or company branding
› Assembly
› Test

ADDITIONAL OPTIONS

› IP54 to IP65 on request
› Dirt and water repellent
› EMC protection

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A STANDARD ENCLOSURE FOR MANY APPLICATIONS

The BT Box 24 is a basic enclosure for a variety of applications. The enclosure made of coated sheet steel with aluminum front and back panel impresses with its simplicity. Screws are not visible as they disappear behind the frame. Integrated ventilation slots ensure that the heat generated inside is efficiently dissipated.

The tiltable feet allow the case to be inclined, making it ideal as a desktop case for test, measurement and other industrial equipment. With the optional handle, the device is even portable.

It is particularly cost-effective for larger quantities.

Main features

› Ventilation slots for controlled air circulation
› Easy assembly: Housing with separate mounting plates
› Mounting plate for individual mounting of the built-in parts
› Desktop and tower variant

Typical applications

› Test and measuring devices
› Laboratory equipment
› Industrial equipment
› Simple applications

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TECHNICAL SPECIFICATIONS

Sizes (mm)

The BT Box 24 is available in 13 different standard sizes.

Code	Height		Width		Depth	Height without frame	Width without frame	Feet	Base	White	Black	Orange	Yellow	Handle
	A	A1	B	B1	C	D	E							
22	106.2	80.2	256.2	230.2	300 / 350	100	250	*		*	*	*	*	O
24	106.2	80.1	356.2	330.2	300 / 350	100	350	*		*	*			
27	141.2	115.2	436.2	410.2	350 / 400	135	430	*		*	*			
20	156.2	130.2	186.2	160.2	300 / 350	150	180	*		*	*	*	*	O
23	156.2	130.2	256.2	230.2	300 / 350	100	250	*		*	*	*	*	O
25	156.2	130.2	356.2	330.2	300 / 350	150	350	*		*	*			
18	186.2	180.2	156.2	130.2	300 / 350	180	150	*		*	*	*	*	O
28	186.2	160.2	436.2	410.2	350 / 400	180	430	*		*	*			
21	206.2	180.2	186.2	330.2	300 / 350	200	180	*		*	*	*	*	O
26	206.2	180.2	356.2	330.2	300 / 350 / 400	200	350	*		*	*			
17	256.2	230.2	106.2	80.2	300 / 350	100	250		*	*	*	*	*	O
19	256.2	230.2	156.2	130.2	300 / 350	250	130	*		*	*	*	*	O
29	266.2	240.2	436.2	410.2	400 / 450	260	430	*		*	*			
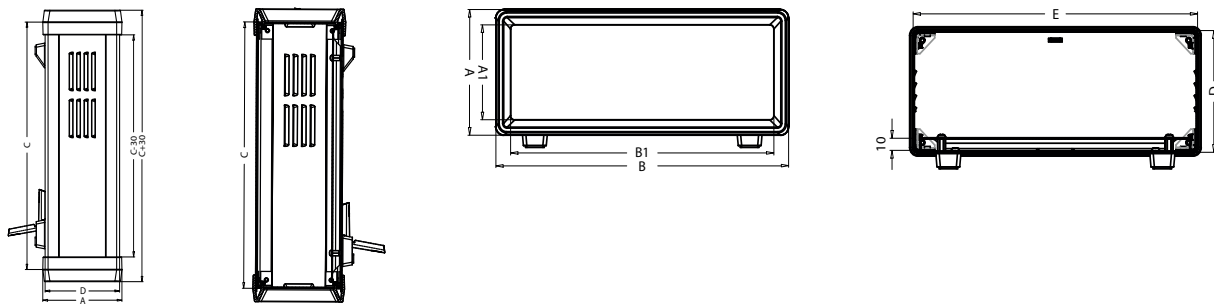
Colors

Most enclosures are available in the colors white, yellow, orange or dark gray as standard.
Colors can be customized as desired.

CUSTOMER-SPECIFIC ADAPTATIONS

Customizations are possible on request.

ROBUST ENCLOSURE IN VARIOUS SIZES AND WITH PROTECTION OPTIONS

The Elma Guardbox 33 is made of two aluminum profiles. The bottom is shaped as a U-profile and gives the box a stable hold. The lid is fixed with the front and back plate fastening. The robust and vibration-resistant enclosure is characterized by its simple structure and easy servicing. The aluminum construction enables an enclosure structure with high EMC shielding. With a special sealing set, an enclosure structure according to the degree of protection up to IP65 is possible.

Main features

› 6 different sizes
› Robust
› No visible screws
› Adjustable folding feet
› Optional handle
› Box, front and back plates completely anodized
› Bottom, front and back panels with or without ventilation slots
› Single or double Eurocards

Typical applications

› Measuring and testing devices
› Laboratory and service equipment
› Equipment on trains and trams

Versions

› Standard version
› IP54 combined with EMC protection
› IP65

TECHNICAL SPECIFICATIONS

Sizes

> Enclosure 0:   129.5 x 55 mm
> Enclosure 1:   129.5 x 71.5 mm
> Enclosure 2:   230.5 x 55 mm
> Enclosure 3:   230.5 x 89 mm
> Enclosure 4:   183.5 x 111 mm
> Enclosure 5:   230.5 x 41 mm

Tailored to customer needs, we offer the Guardbox 33 in six different sizes.

Colors (powder coating)

> Floor and cover profile: Light gray, black, stone gray other colors on request (MOQ: 10 pieces, no stock)
> Frame: Light gray, black, stone gray

ACCESSORIES

> Handles
> Mounting bracket for panel mounting
> Eurocards installation kits
> Card guides
> Card carrier for plug-in modules (single Eurocards)
> Profile front panels
> Card stopper
> Mounting plates
> Protective conductor connection

## A SIMPLE BUT ROBUST ENCLOSURE IN DIFFERENT SIZES

The Guardbox 33 easy is a small and robust enclosure, that is available in different sizes and designs. With its inner guide rails, it easily accommodates PCB cards (Eurocard format or other components). A wide range of accessories enables optimal adaptation to any application. The lid is fixed with the front and back plate fastening. The vibration-proof enclosure is characterized by its simple structure and easy servicing.

The small enclosure can be used for measuring, proof and testing devices. In addition to handiness, shape and color the robust, the construction is crucial.
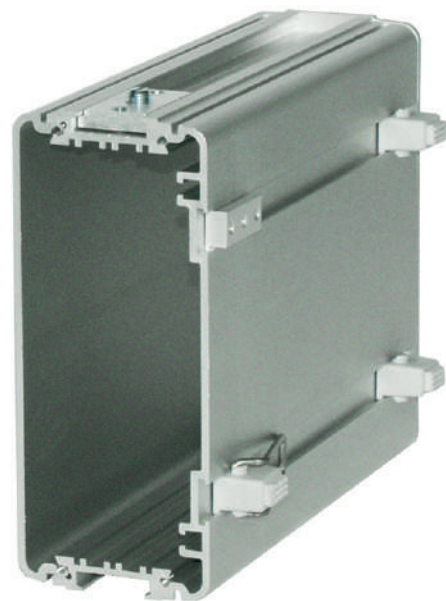
Main features

› 6 different sizes
› Robust
› Adjustable folding feet
› Optional handle
› Enclosure as well as front and back plates completely anodized
› Single or double Eurocards

Typical applications

› Measuring and testing devices
› Laboratory and service equipment
› Equipment on trains and trams

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GUARDBOX 33 EASY

TECHNICAL SPECIFICATIONS

Sizes

› Enclosure 0:   129.5 x 55 mm

› Enclosure 1:   129.5 x 71.5 mm

› Enclosure 2:   230.5 x 55 mm

› Enclosure 3:   230.5 x 89 mm

› Enclosure 4:   183.5 x 111 mm

› Enclosure 5:   230.5 x 41 mm

Tailored to customer needs, we offer the Guardbox 33 in six different standard sizes.

Enclosure 0

Enclosure 1

Enclosure 4

Enclosure 2

Enclosure 3

Enclosure 5
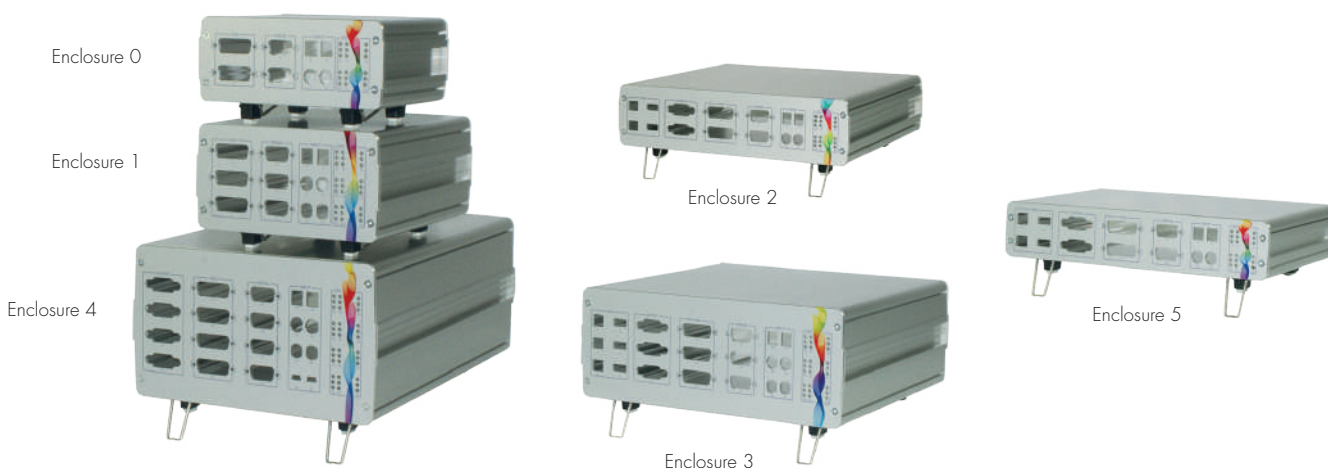
Colors

› Colorless anodized

› Color variants on request

ACCESSORIES

› Bow handles

› Handle channel and foot nuts

› Card stopper

› Protective conductor connection

SPECIAL ALUMINUM PROFILE ENABLES FULLY ADJUSTABLE SIZES

The Varietybox 35 is made up of 4 identical corner profiles and 6 flat sheets. The multifunctional corner profiles and flat sheets are made of aluminum. Thanks to the simple structure, assembly is extremely quick. The Varietybox 35 is a cost-effective solution and can be easily modified.

With ventilation slots, protection level of IP30 is achieved and IP40 without ventilation slots. A basic EMC level can be guaranteed by using colorless passivated corner profiles. The anodized corner profiles also allow a hard and scratch-resistant surface.

Main features

› Different sizes available
› Colors: White, silver (other colors on request)
› Customizations possible
› Standard or customized front panels
› Optional scalable EMC shielding
› Rear E / A possible

Typical applications

› Measuring and testing devices
› Control devices
› Service equipment

EMC sealing

› IP40 standard (no ventilation slots)
› IP30 with ventilation slots

Multifunctional corner profile

› Symmetric functions
› Holder for sliding blocks or PCBs
› Size approx. 30 mm
› Outside radius 5 mm
› Material: Aluminum
› Different colors (anodized or colored)
› Scratch-resistant surface on anodized profiles
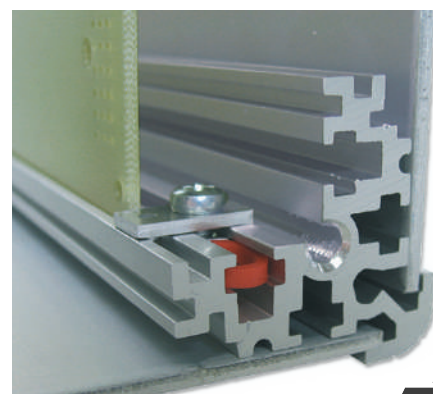
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TECHNICAL SPECIFICATIONS

Sizes

Height		Width		Depth	
mm	**inch**	**mm**	**inch**	**mm**	**inch**
74	2.91	74	2.91	64	2.52
104	4.09	104	4.09	94	3.7
125	4.92	125	4.92		
134	5.27	134	5.27	124	4.88
194	7.63	194	7.63	184	7.24
254	10			244	9.6
258.35	10.17	258.35	10.17		
314	12.36	314	12.36	304	11.96

Other dimensions on request

Colors

› Profile: Black or clear
› Cover sheets: Clear
› Other colors on request

Executions

› Desktop case
› DIN rail enclosure
› Wall mounting enclosure
› Flat enclosure
› Multi-purpose enclosure
› Handy small enclosure
› 19" installation enclosure (modified standard)

ACCESSORIES

› Bumpon (adhesive feet) and handles
› Seals
› Mounting plates
› Card stopper
› Protective conductor connection
› Fastening material
› Spacer bolts
› Cover caps
› Mounting brackets

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THE HIGH-QUALITY BOX SYSTEM FOR 19" PLUG-IN OR EMBEDDED APPLICATIONS

The ELOS Box 54 is an embedded enclosure for two to three controller cards. The enclosure consists of an aluminum profile and is especially developed for industrial applications of embedded controller cards. In addition to accommodating up to 3 Eurocard form factor board slots, the box can be equipped with a corresponding backplane (e.g. CompactPCI) as well as a suitable power supply. Optionally, a heat conductive cooling connection or active cooling with fan is possible. The design is ideally suited to excellent EMC protection.

Main features

› Extruded aluminum profile on aluminum base plate
› Black lacquered,
  other colors on request
› Ground connection on base plate
› Compact dimensions
› For 2 or 3 controller cards
› Excellent EMC shielding
› Various backplanes and power supplies available
› Special lengths optionally possible

Versions

› With cooling fins (IP40)
› Additional ventilation slots for cooling (IP30)
› Additional fan openings (IP30)

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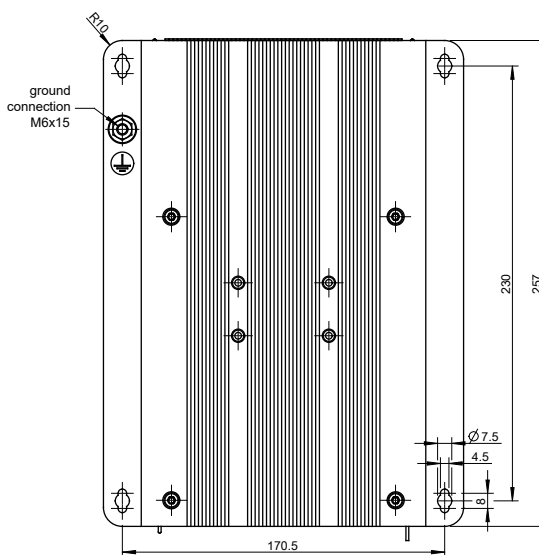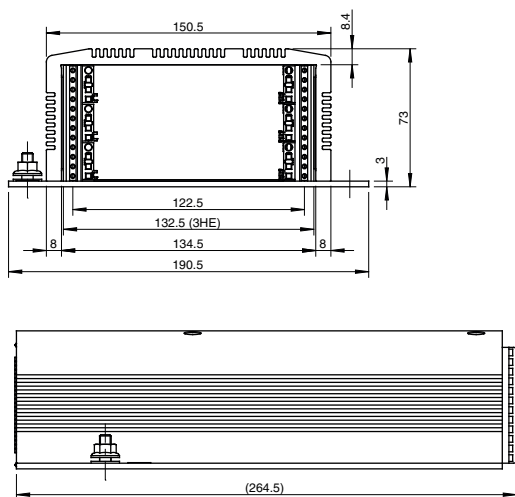
ELOS-BOX 54

TECHNICAL SPECIFICATIONS

Sizes

› Standard: 190.5 x 73 x 264.5 mm
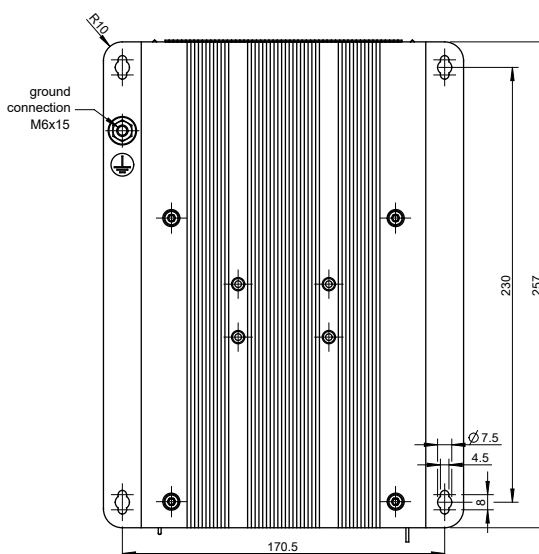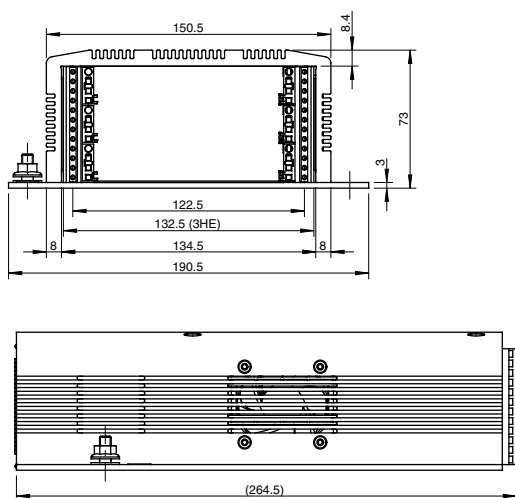 Card slot: 3 U
› Other sizes on request

Colors

› Black powder coated
› Other colors on request

DRAWINGS

Type ELOS-E1

Type ELOS-E3

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