05/2008

Flexibility and efficiency - your advantage

ible and efficient

Custom made solutions





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Technical notes

Perfect, systemised power branching

Casing

The casings have a tried and trusted design and offer maximum material quality. Ten casings are available in different sizes and shapes, and in the colours electric grey RAL 7035 and black.



Terminals

Only high quality connection and junction terminals are used for the installation.





Cable couplings

For installation there is a hand-picked range of equipment available with special material features. A strong seal (IP 68) and resistance to chemical influences are key features of these cable couplings.

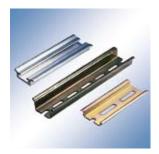


Accessories

The accessories available include mounting plates or brackets made from rust-free metal (V2A/V4A) for uneven bases or where space is at a premium.

Rails

Standardised DIN rails are ideal for the easy and rapid installation of terminals or command and messaging equipment. Retrofitting or add-on installations are possible.



Labelling

An engraved or inscription plate is possible for clear identification of technical operating notes on request.



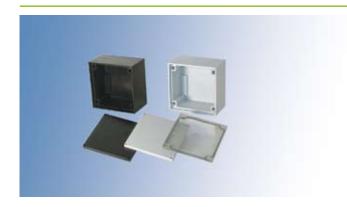
With our system you can stay flexible!

Sealing groove, sealing part and rubber seal guarantee a high protection rating (IP 65)
 Fitting holes outside the terminal area for complete safety insulation
 Wall thickness from 7 to 15 mm, also for use in extreme conditions
 Casing: Special mixture of butyl rubber, which makes it self-extinguishing and halogen-free
 Cover: made from polycarbonate, self-extinguishing and halogen-free

The notes given on this page relate to the solid rubber junction boxes. This information applies to fire-proof junction boxes (from page 9) in a limited way only.



Solid rubber clamp distributor: Type 1010 / type 1212



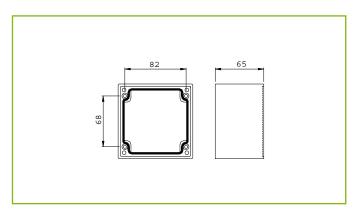
Type 1010

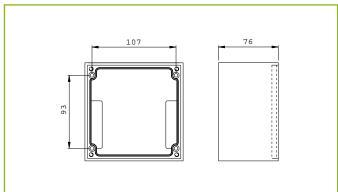
for cable Ø up to Max. $5 \times 2,5 \, \text{mm}^2$ External dimensions: $100 \times 100 \times 65 \, \text{mm}$ Internal dimensions: $83 \times 83 \times 52 \, \text{mm}$



Type 1212

for cable Ø up to Max. $5 \times 6 \text{ mm}^2$ External dimensions: $125 \times 125 \times 76 \text{ mm}$ Internal dimensions: $108 \times 108 \times 64 \text{ mm}$





Designs with the following component fittings on request:

Component fitting 3 x M16x1.5 4 x M16x1.5 2 x M20x1.5 Empty casing Colour grey or black

Designs with the following component fittings on request:

Component fitting	Terminals
4 x M16x1.5	3 x 6 mm ²
2 x M20x1.5	5 x 2.5 mm ²
3 x M20x1.5	5 x 6 mm ²
4 x M20x1.5	5 x 6 mm ²
1 x M25x1.5 / 2 x M20x1.5	5 x 6 mm ²
1 x M25x1.5 / 3 x M20x1.5	5 x 6 mm ²
2 x M25x1.5	5 x 6 mm ²

Colour grey or black

Order no.	Description
207630	Empty casing, grey
206660	Empty casing, black



Solid rubber clamp distributor: Type 1616 / type 1812



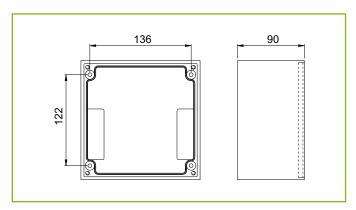
Type 1616

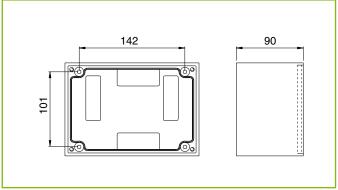
for cable Ø up to Max. $5 \times 16 \text{ mm}^2$ External dimensions: $160 \times 160 \times 90 \text{ mm}$ Internal dimensions: $142 \times 142 \times 74 \text{ mm}$



Type 1812

for cable Ø up to Max. $5 \times 10 \text{ mm}^2$ External dimensions: $180 \times 125 \times 90 \text{ mm}$ Internal dimensions: $157 \times 107 \times 74 \text{ mm}$





Designs with the following component fittings on request:

Component fitting	Terminals
3 x M20x1.5	5 x 6 mm ²
4 x M20x1.5	5 x 6 mm ²
6 x M20x1.5	5 x 6 mm ²
3 x M25x1.5	5 x 6 mm ²
4 x M25x1.5	5 x 10 mm ²
2 x M32x1.5	5 x 10 mm ²
2 x M32x1.5 / 2 x M20x1.5	5 x 16 mm ²
2 x M32x1.5 / 2 x M25x1.5	5 x 16 mm ²

Colour grey or black

Designs with the following component fittings on request:

Component fitting	Terminals
3 x M20x1.5	5 x 6 mm ²
4 x M20x1.5	5 x 6 mm ²
2 x M25x1.5	5 x 6 mm ²
3 x M25x1.5	5 x 6 mm ²
2 x M32x1.5	5 x 16 mm ²
2 x M25x1.5 / 2 x M20x1.5	5 x 10 mm ²
2 x M25x1.5 / 3 x M20x1.5	5 x 16 mm ²

Colour grey or black

Order no.	Description	Order no.	Description
207631	Empty casing, grey	207633	Empty casing, grey
206662	Empty casing, black	206663	Empty casing, black



Solid rubber clamp distributor: Type 2516 / type 3020



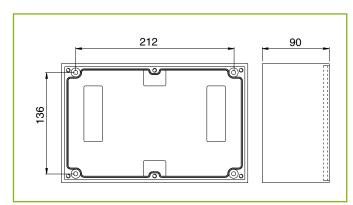
Type 2516

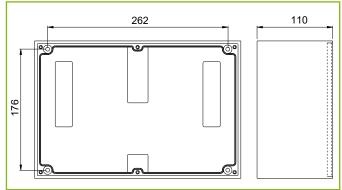
for cable Ø up to Max. $5 \times 25 \text{ mm}^2$ External dimensions: $250 \times 160 \times 90 \text{ mm}$ Internal dimensions: $229 \times 141 \times 74 \text{ mm}$



Type 3020

for cable Ø up to Max. 5 x 35 mm² External dimensions: 300 x 200 x 110 mm Internal dimensions: 281 x 182 x 94 mm





Designs with the following component fittings on request:

Component fitting	Terminals
6 x M20x1.5	18 x 2.5 mm ²
3 x M25x1.5	5 x 10 mm ²
4 x M25x1.5	5 x 10 mm ²
5 x M25x1.5	5 x 16 mm ²
3 x M32x1.5	5 x 16 mm ²
4 x M32x1.5	5 x 35 mm ²
2 x M40x1.5	5 x 35 mm ²
3 x M40x1.5	5 x 35 mm ²

Colour grey or black

Designs with the following component fittings on request:

Component	fitting	Terminals
3 x M32x1.5		5 x 35 mm ²
2 x M50x1.5		5 x 70 mm ²
10 x M20x1.5		10 x 6 mm ²
Colour grey o	or black	
Order no.	Description	
233882	Empty casing, grey	
233861	Empty casing, black	

Order no. Description
207634 Empty casing

207634 Empty casing, grey 206665 Empty casing, black



Solid rubber clamp distributor: Type 3800 / type 3900

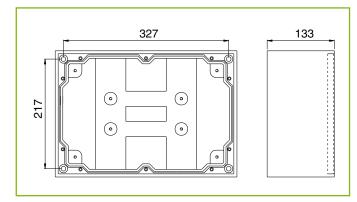


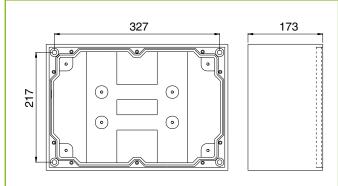
Type 3800

for cable Ø up to Max. 5 x 70 mm² External dimensions: 360 x 250 x 133 mm Internal dimensions: 327 x 220 x 106 mm

Type 3900

for cable Ø up to Max. $5 \times 95 \text{ mm}^2$ External dimensions: $360 \times 250 \times 173 \text{ mm}$ Internal dimensions: $327 \times 220 \times 144 \text{ mm}$





Designs with the following component fittings on request:

Component fitting	Terminals
4 x M40x1.5	5 x 70 mm ²
2 x M63x1.5	5 x 120 mm ²

Colour grey or black

Order no.	Description
208449	Empty casing, grey
207848	Empty casing, black

The casing type 3900 has a larger installation depth than type 3800 (\pm 40 mm). It is used for special requirements such as all cable couplings in the same side wall, terminals installed at different heights, etc.

Type 3900 is only available in the black version.

For special applications we recommend using a mounting plate to fit series type 3800 and type 3900.





Solid rubber clamp distributor: Type 7800 / type 7900

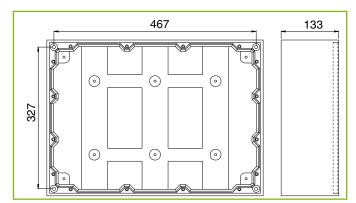


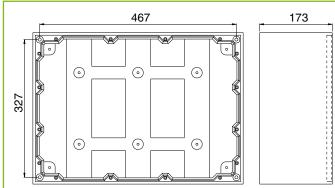
Type 7800

for cable Ø up to Max. $5 \times 150 \text{ mm}^2$ External dimensions: $500 \times 360 \times 133 \text{ mm}$ Internal dimensions: $447 \times 327 \times 106 \text{ mm}$

Type 7900

for cable Ø up to Max. $5 \times 240 \text{ mm}^2$ External dimensions: $500 \times 360 \times 173 \text{ mm}$ Internal dimensions: $447 \times 327 \times 144 \text{ mm}$





Designs with the following component fittings on request:

Component fitting	Terminals
4 x M50x1.5	5 x 120 mm ²
1 x cable coupling special	
(cableØ46-60 cm) / 4 x M50x1.5	5 x 120 mm ²
10 x M32x1.5	5 x 240 mm ²

Colour grey or black

Order no.	Description
237992	Empty casing, grey
207846	Empty casing, black

The casing type 7900 has a larger installation depth than type 7800 $(+\ 40\ \text{mm})$. It is used for special requirements such as all cable couplings in the same side wall, terminals installed at different heights, etc.

Type 7900 is only available in the black version.

For special applications we recommend using a mounting plate to fit series type 7800 and type 7900.





Fire-proof clamp distributors: Technical notes

Why fire-proof junction boxes?

Profit from our experience!

Following some disastrous fire catastrophes (Düsseldorf airport, tunnel fires in France, Austria and Switzerland), the interest in fire-proof electrical installations has increased greatly. GIFAS-Electric GmbH has tried to give the final word on the topic of "distribution" with the development of a fire-proof junction box. We are able to offer a tested product.

Thanks to our experience and our close collaboration with renowned providers of fire-proof cables or systems, we are able to solve your problem! In collaboration with our partners we are pleased to advise you. Contact us!



General technical specifications

Fire protection distributors E30 are available with decentral or central fuses in various component fittings and dimensions.

Important: The manufacture and supply of fire-proof sockets is limited by specific technical conditions to ensure the preservation of functionality! (System test required!)

Requirements

Material features Halogen-free, flame-resistant, special compound

System tests Test report number P-MPA-E-02-019

Versions

Internal wiring customised to customer requirements

Cable inlets depending on the project, different sized cable couplings are available

Wall fixing plate Fixing plate V2A/V4A or suspension lugs V2A/V4A

Technical data

 Range
 BFA 1313-E30
 BFA 1616-E30
 BFA 2020-E30

 External socket dimensions
 130 x 130 x 92 mm
 160 x 160 x 108 mm
 200 x 200 x 108 mm

Colour Orange

General features

Protection rating IP 65 (in connected status)

Preservation of functionality E30 to DIN 4102 part 12 (depends on the cable design and on the cable manufacturer)



Technical principles / Notes on standards

The preservation of insulation (FE) and of functionality (E) are not identical!!

Preservation of insulation (FE)

The test to determine the insulation preservation (FE) is carried out using a single cable only.

In the event of a fire, however, the power supply can only be ensured using an intact cable system, in other words using:

- ♦ Safety cable in combination with
- ♦ The relevant fixing elements!!

Preservation of functionality (E)

- ♦ Low voltage cable up to 1 kV
- Installation and telecommunication cable
- Including the relevant fixing elements
 - Cable channels, cable conductors, clamps, sockets, etc.

The preservation of functionality is divided into the following classes according to the duration measured:

- ♦ E30 > 30 minutes
- ♦ E60 > 60 minutes
- ♦ E90 > 90 minutes

Safety considerations	Required
	properties
No risk to health or intrinsic values from corrosive gases	Halogen-free, none corrosive gases
Use of barely flammable materials	flame-resistance
No fire conduction via beyond the local ignition source	Low fire conductance
No impairment of the escape routes and rescue measures	Minimum smoke development

	Preservation of	Preservation
	insulation (FE)	of functiona-
		lity (E)
Test standard	IEC 60331 / BS 6387	DIN 4102 part 12 (CWZ)
Test specimen	single cable	entire cable system
Tested length	= 0.6 m	2 x 4 m / Installation type
Fixing system	not relevant	various configurations
Test parameters	180 min. at 750° C	30/90 min. / 950°C to ISO 834
Note	static test	realistic conditions

Applications

- 30 minutes (E30) to evacuation
 - Fire notification systems
 - Alarm devices
 - Safety lighting
 - Passenger lifts with evacuation switch
- 90 minutes (E90) to fire-fighting
 - Water pressure intensifier systems
 - Smoke and heat extraction flaps
 - Fire service and lifts for injured persons

General applications

- Establishments with high personnel requirements and limited escape options
 - High-rise buildings, offices, hospitals, tunnels (railway, road), airports, etc.
- Establishments with high levels of material assets
 - IT and computer centres, museums, etc.
- Establishments with maximum safety requirements
 - Offshore industry, chemicals, petrochemicals, etc.



Fire-proof clamp distributors: BFA 1313 / BFA 1616



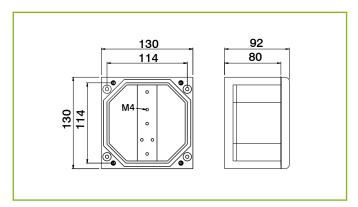
Type 1313

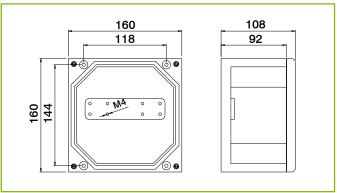
External dimensions: 130 x 130 x 92 mm Internal dimensions: 106 x 106 x 63 mm



Type 1616

External dimensions: 160 x 160 x 108 mm Internal dimensions: 138 x 138 x 79 mm





Designs with the following component fittings on request:

Component fittingTerminals3 x M20x1.53 x 2.5mm² Steatite1 x safety terminal 1A-T

Designs with the following component fittings on request:

 Component fitting
 Terminals

 2 x M25x1.5
 5 x 6 mm² Steatite

 1 x M20x1.5
 5 x 6 mm² Steatite

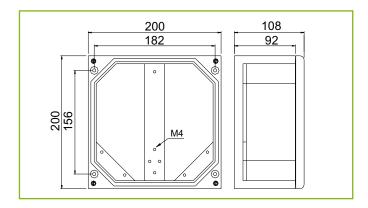


Fire-proof clamp distributors: BFA 2020



Type 2020

External dimensions: 200 x 200 x 108 mm Internal dimensions: 176 x 176 x 79 mm

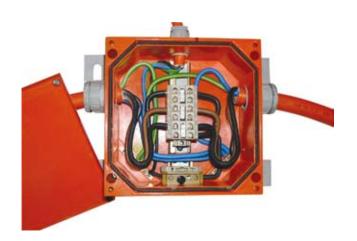


Designs with the following component fittings on request:

Component fittingTerminals2 x M32x1.55 x 10 mm² Steatite

1 x M20x1.5

1 x safety terminal 1A-T





Accessories



Mounting, adapter and fitting plates in different versions. Make use of our specialists' experience!

Mounting plates for solid rubber junction boxes:

Solid steel plates which can be mounted all-over onto the rear socket wall. Given at the top is the attachment or fitting plate with one, two or three fixing holes (large "key" holes).

⇒ For complex mounting conditions such as shafts, tight ⇒ For clean permanent installation with 4 mounting holes spaces, etc.

Fitted left and right across the casing rear wall are brackets. At

the top and bottom is a protruding fitting area with generous

Fitting brackets for solid rubber junction boxes:

for type	Design options	for type	Design options	
1010	square	1010	lengthwise/diagonal	
1212	square	1212/1812	lengthwise/diagonal	
1616	square	1616/2516	lengthwise/diagonal	
1812	diagonal or vertical	1812	lengthwise/vertical	
2516	diagonal or vertical	2516	lengthwise/vertical	
3020	diagonal or vertical	3020	lengthwise/diagonal	
3800/3900	diagonal	3020	lengthwise/vertical	
		3800/3900	lengthwise/diagonal	
		7800/7900	lengthwise/diagonal	

mounting holes.

Fitting accessories for fire-proof junction boxes:

In the fire-proof clamp distributors area E30 we develop your very special mounting system for you. For bomb-shaped tunnel walls, spaced for the lead-through of cables, flat or folded mounting plates in V2A or V4A rust-free design.

Coordinated and tested for the project

Suspension lugs V2A rust-free for BFA 2020, can be suspended, simple assembly





Practical examples



Sewage plants

Simple - Fast - Durable

Connection of pumps, indicator and monitoring units: With our hard rubber clamp distributors they are flexible in any installation!

Rust-free, UV-resistant, and resistant to most chemical substances. For use in the toughest conditions!



Industry Your control and distribution problem – our expertise

Various casing shapes and sizes give you the options you need. Sensitive controls or terminal strips for combining connection lines can be integrated into our junction boxes in a impact-proof and

compact way.







National highways / road maintenance We'll keep you on the right track!

Connection and junction boxes for steering, control and maintenance. Customised component fitting conforming



to the standards of the relevant road traffic office. Resistant to continually changing environmental and weather conditions.

Flexibility in usage

Flexibility

The cleverly developed design and the perfect processing of the GIFAS clamp distributors guarantee maximum flexibility in usage. Whether on uneven surfaces or where space is tight, whether in industry, chemistry or in tunnels: with our boxes your installations are flexible and efficient.

All boxes are fitting precisely according to your needs and specifications. Profit from the tried and trusted GIFAS – quality and our experience.



A full spectrum of expertise

- Standard components for customised expansion
- Wall assembly via internal fixing holes separated from the wiring space
- Subsequent modification possible on-site
- Easy installation of command and messaging devices
- All leadthroughs on the casing with thread
- Wall thickness of 7–15 mm, reinforced corner design
- Cover screws, rust-free A4, cannot be lost
- Sealing groove, sealing part and rubber seal ensure a high protection rating
- Clamp distributors can be combined with one another

Varied applications

- Sewage plants
- Chemical industry
- Tunnel construction
- Finishing industry
- Tunnels / caverns
- Road and garden construction
- Food and luxury food industry
- Mines
- Transport systems
- Electroplating works
- Technical fire safety systems in tunnel construction (railway, national highways) and much more

Tested quality

-conforms to standards

Applications

We can offer you solutions for terminals and distributors. Make us of the advantages offered by our innovative quality products, and profit from our experienced advice. GIFAS-ELECTRIC has made its name thanks to expert services. Our solid rubber clamp distributors can be fitted according to your technical specifications – individual, flexible and fast.

In the area of E30 installations we develop tailor-made solutions in collaboration with our partners: from the junction box to many different types of cable fittings – tested and ready for connection!

Colours

- Electric grey RAL7035
- Black
- Orange (area E30)
- Other colours on request

Contact us We look forward to become acquainted with you personally! Custom made solutions

GIFAS W.J. Gröninger ELECTRIC GmbH Borsigstrasse 9 • D-41469 Neuss Postfach 21 03 63 • D-41429 Neuss Phone 02137 105-0 • Fax 02137 105-230 http://www.gifas.de • verkauf@gifas.de

