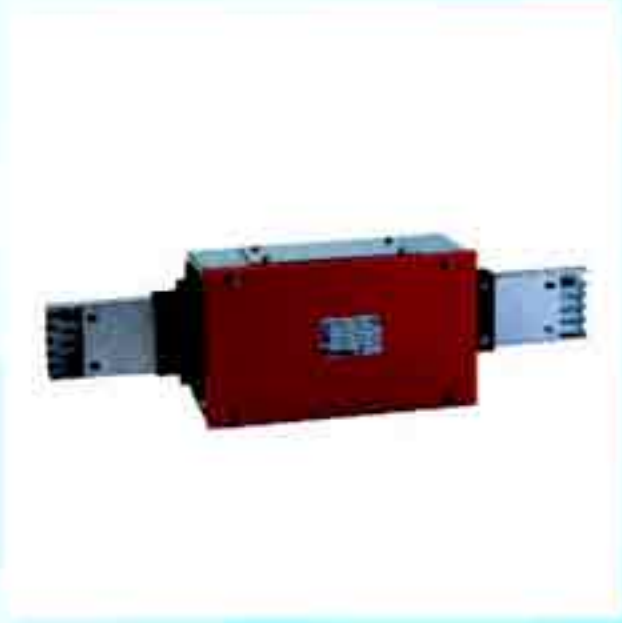


63 - 160 A



GPD



NOVA
ELECTRICAL CO.

20 Dixon Place, College Milton, East Kilbride G74 JF
Tel: +44(0)1355 234443 Fax: +44(0)1355 247301
email: info@nova.uk.com www.novaelectrical.co.uk

63 - 100 - 160 A

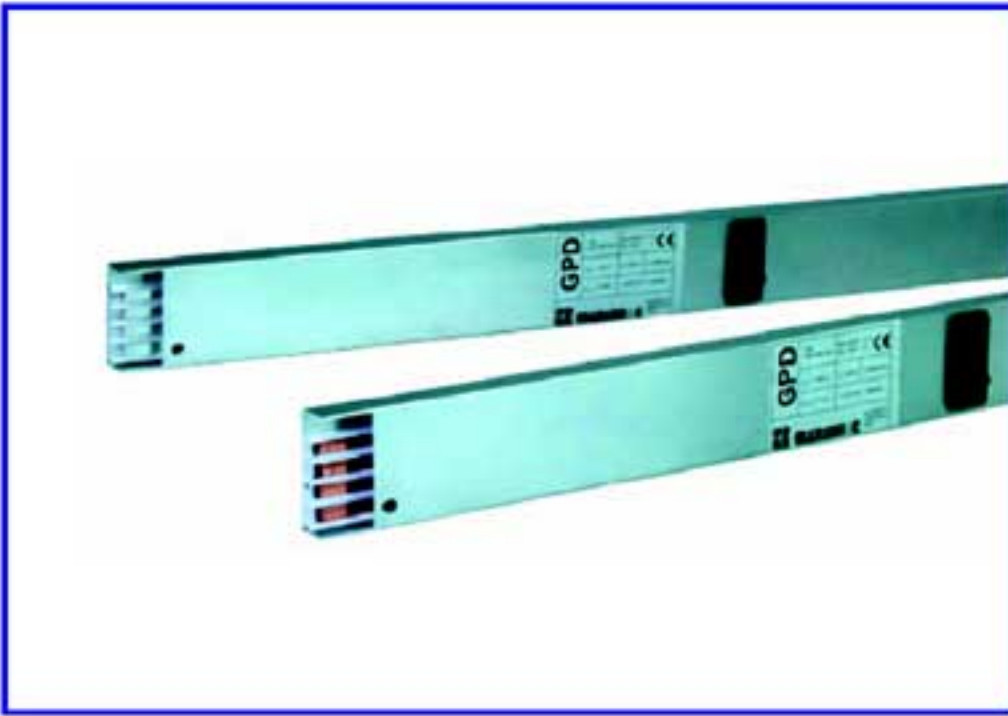


CE **LOW POWER BUSBAR SYSTEMS**



GPD complies with the following standard:
IEC 60439-1, IEC 60439-2, CEI EN 60439-1, CEI EN 60439-2, DIV VDE 0660 part 500, DIN VDE 0660 part 502

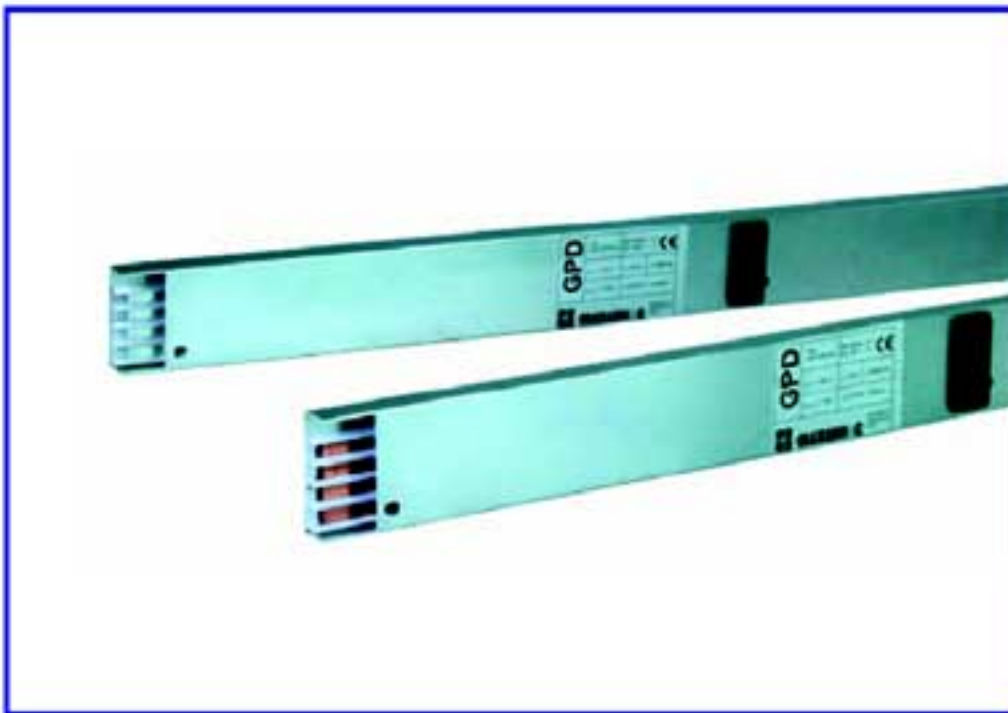
- **Aluminium external housing in one extrusion**
- **Aluminium conductors (63-100 A) and in copper (160 A)**
- **3 metres standard straight elements**
- **GPD 4: PE housing with section always bigger than phase section**
- **GPD 5: PE dedicated conductor**
- **Neutral section always like the phase section**
- **PE section always > 200% phase section**
- **Fast mounting push in coupling joint**



Straight elements (3 m)

A	GPD 4		GPD 5		Tap off points
	kg/m	Code	kg/m	Code	
63	1,21	GPD406R3D3	1,34	GPD506R3D3	4
100	1,31	GPD410R3D3	1,44	GPD510R3D3	4
160	2,30	GPD416R3D3	2,43	GPD516R3D3	4
63	1,24	GPD406R3D6	1,37	GPD506R3D6	6
100	1,33	GPD410R3D6	1,46	GPD510R3D6	6
160	2,33	GPD416R3D6	2,46	GPD516R3D6	6

The joint is always included in each element.



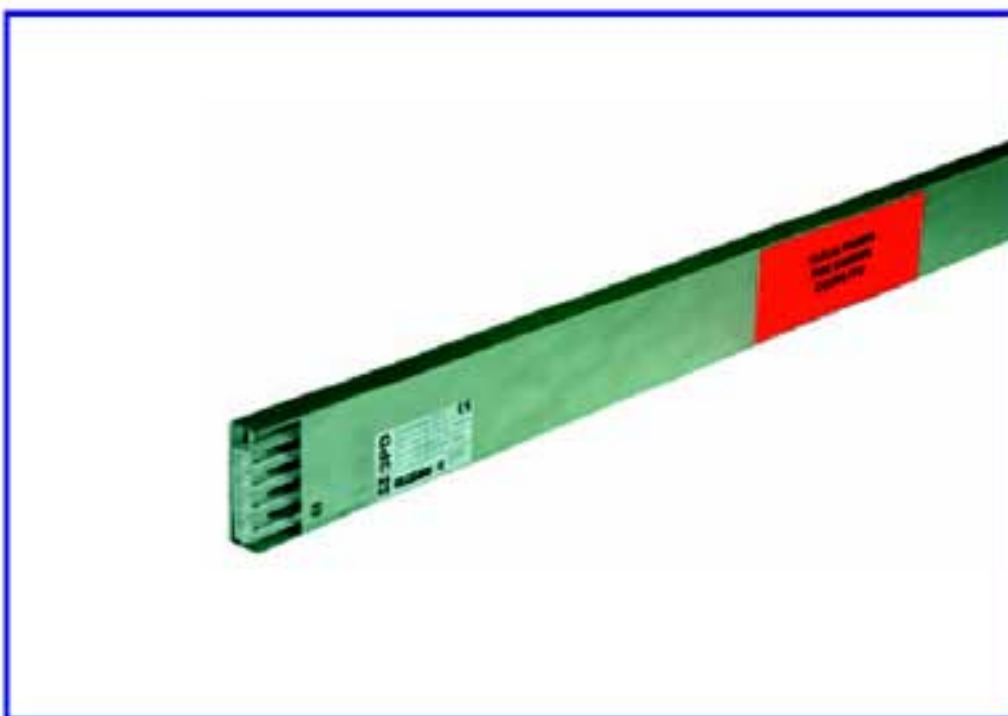
Straight elements (2 m)

A	GPD 4		GPD 5		Tap off points
	kg/m	Code	kg/m	Code	
63	1,21	GPD406R2	1,34	GPD506R2	2
100	1,31	GPD410R2	1,44	GPD510R2	2
160	2,30	GPD416R2	2,43	GPD516R2	2

Straight elements (1 m)

63	1,21	GPD406R1	1,34	GPD506R1	1
100	1,31	GPD410R1	1,44	GPD510R1	1
160	2,30	GPD416R1	2,43	GPD516R1	1

The joint is always included in each element.



Straight elements (1 m) with fire barrier

A	GPD 4		GPD 5	
	kg	Code	kg	Code
63	1,24	GPD406R1TF	1,37	GPD506R1TF
100	1,34	GPD410R1TF	1,47	GPD510R1TF
160	2,37	GPD416R1TF	2,50	GPD516R1TF

The fire barrier, REI120 (2 h), is prefitted in the center of the 1 m straight element.



IP55 execution

GPD 4/5	
A	Code
63 } 100 } 160 }	GPDCGIP55 Kit IP55 for straight elements (3-2-1 m).

For all the others accessories in IP55 add at the end of each code the number 5.

Ex: IP42 = GPD***** → IP55 = GPD***** 5



End feed unit

A	GPD 4		GPD 5	
	SX LH	DX RH	SX LH	DX RH
63	GPD406ATS	GPD406ATD	GPD506ATS	GPD506ATD
100	GPD410ATS	GPD410ATD	GPD510ATS	GPD510ATD
160	GPD416ATS	GPD416ATD	GPD516ATS	GPD516ATD

Cables entrance: 70x50 mm

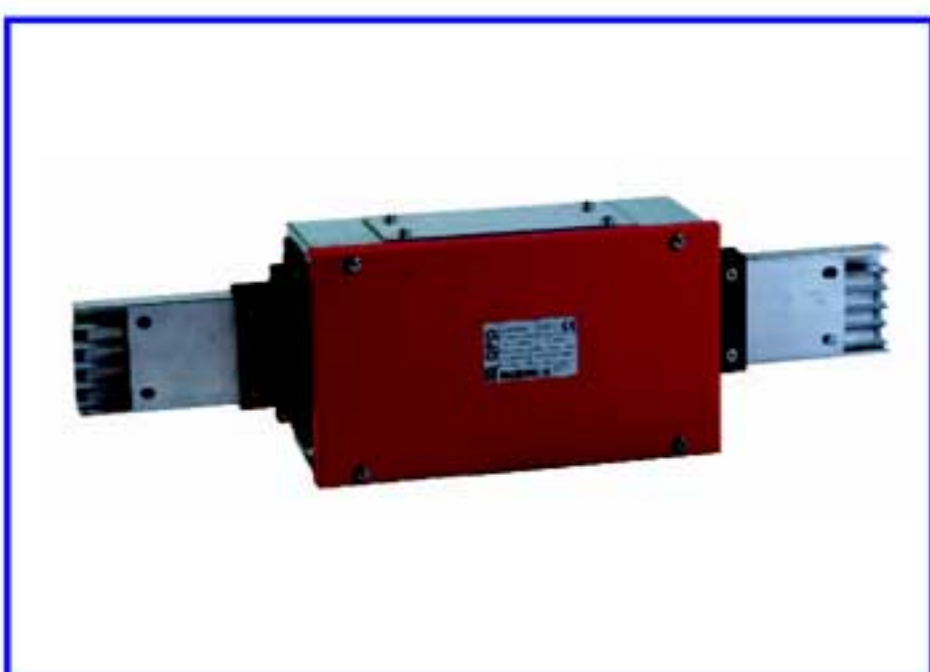


End feed unit with switch

A	GPD 4		GPD 5	
	SX LH	DX RH	SX LH	DX RH
63	GPD406ATSI	GPD406ATDI	GPD506ATSI	GPD506ATDI
100	GPD410ATSI	GPD410ATDI	GPD510ATSI	GPD510ATDI
160	GPD416ATSI	GPD416ATDI	GPD516ATSI	GPD516ATDI

Cables entrance: 70x50 mm

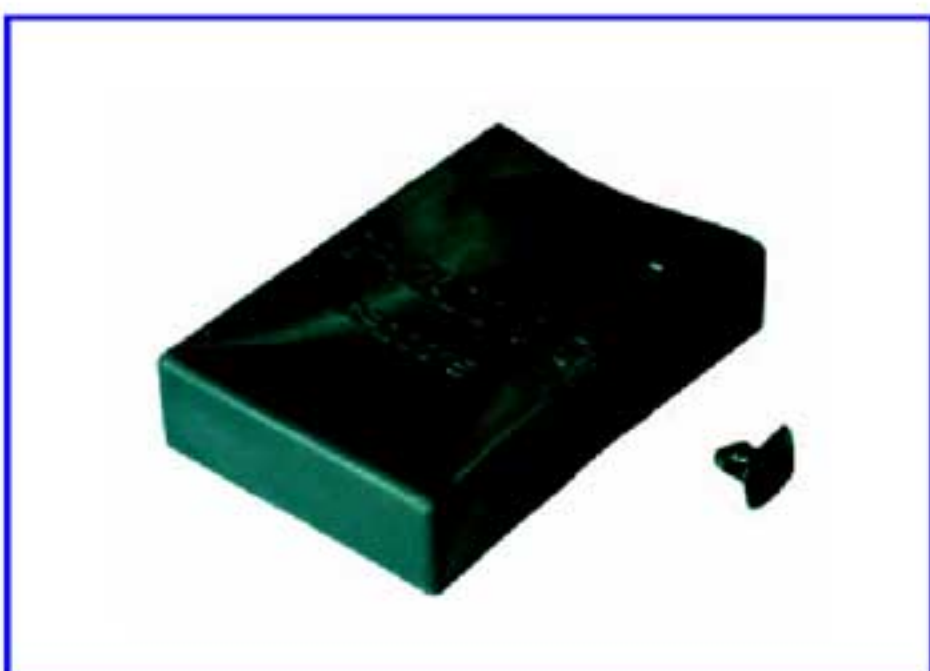
The switch mounted is without fuse bases, on request it is possible to have switch with fuse-bases.



Centre feed unit

A	GPD 4	GPD 5
	Code	Code
63	GPD406AI	GPD506AI
100	GPD410AI	GPD510AI
160	GPD416AI	GPD516AI

Cables entrance: 100x50 mm



End cap

A	GPD 4/5
	Code
63 } 100 } 160 }	GPDCT



Tap off box 16 A direct		
	GPD 4	GPD 5
	GPD16CDDI	GPD516CDDI
Tap off material	Plastic	Plastic
Conductor material	Al+Sn	Al+Sn
Max cable section	2,5 mm ²	2,5 mm ²
Maximum entrance cable	13 Ø mm	13 Ø mm
Fuse-base type	Not present	Not present
Execution	2P+PE	2P+PE

The tap off could be moved under voltage.



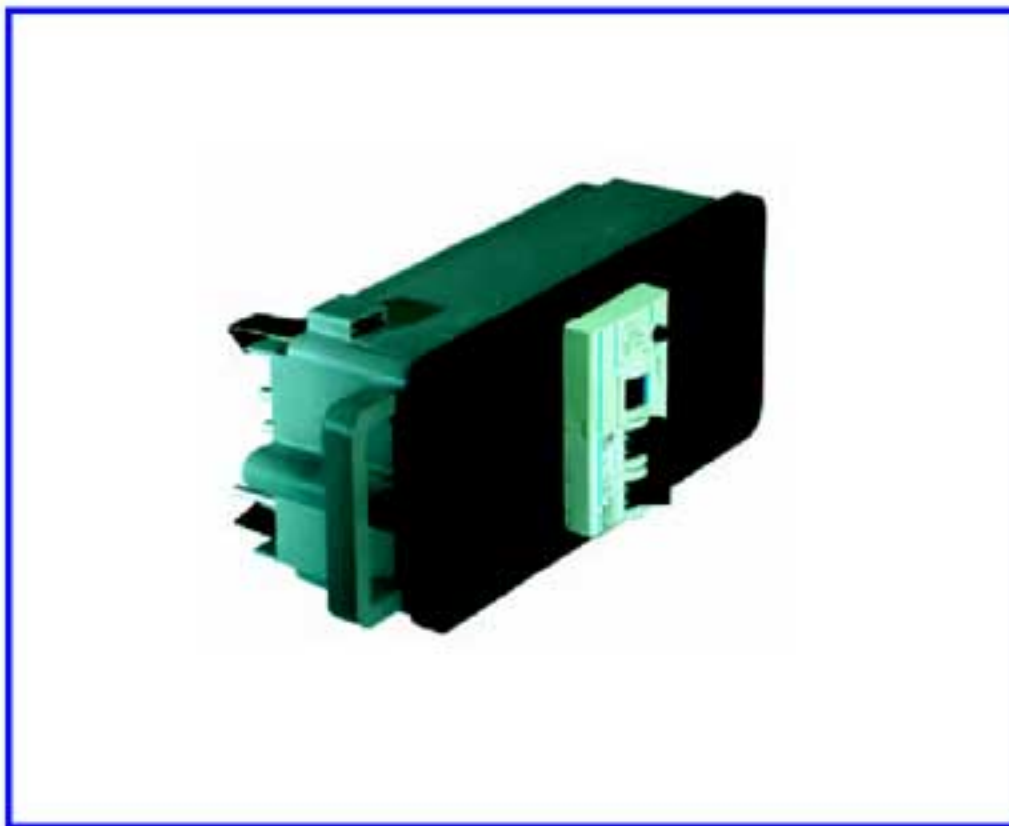
Tap off box 16 A with phase selection		
	GPD 4	GPD 5
	GPD16CDL*	GPD516CDL*
Tap off material	Plastic	Plastic
Conductor material	Al+Sn	Al+Sn
Max cable section	2,5 mm ²	2,5 mm ²
Maximum entrance cable	13 Ø mm	13 Ø mm
Fuse-base type	6,3x32	6,3x32
Fuse	Non inclusio Not included	Non inclusio Not included
* Execution GPD16CDL	{ 1 = L1+N+PE 2 = L2+N+PE 3 = L3+N+PE	L1+N+PE L2+N+PE L3+N+PE



Tap off box 16 A		
	GPD 4	GPD 5
	GPD16CDFU	GPD516CDFU
Tap off material	Plastic	Plastic
Conductor material	Al+Sn	Al+Sn
Max cable section	2,5 mm ²	2,5 mm ²
Maximum entrance cable	13 Ø mm	13 Ø mm
Fuse-base type	6,3x32	6,3x32
Fuse	Not included	Not included
Execution	4P+PE	4P+PE



Tap off box 32 A with off load isolator		
	GPD 4	GPD 5
	GPD32CDFU	GPD532CDFU
Tap off material	Plastic	Plastic
Conductor material	Al+Sn	Al+Sn
Max cable section	6 mm ²	6 mm ²
Maximum entrance cable	38 Ø mm	38 Ø mm
Fuse-base type	CF 10x38	CF 10x38
Fuse	Not included	Not included
Execution	4P+PE	4P+PE



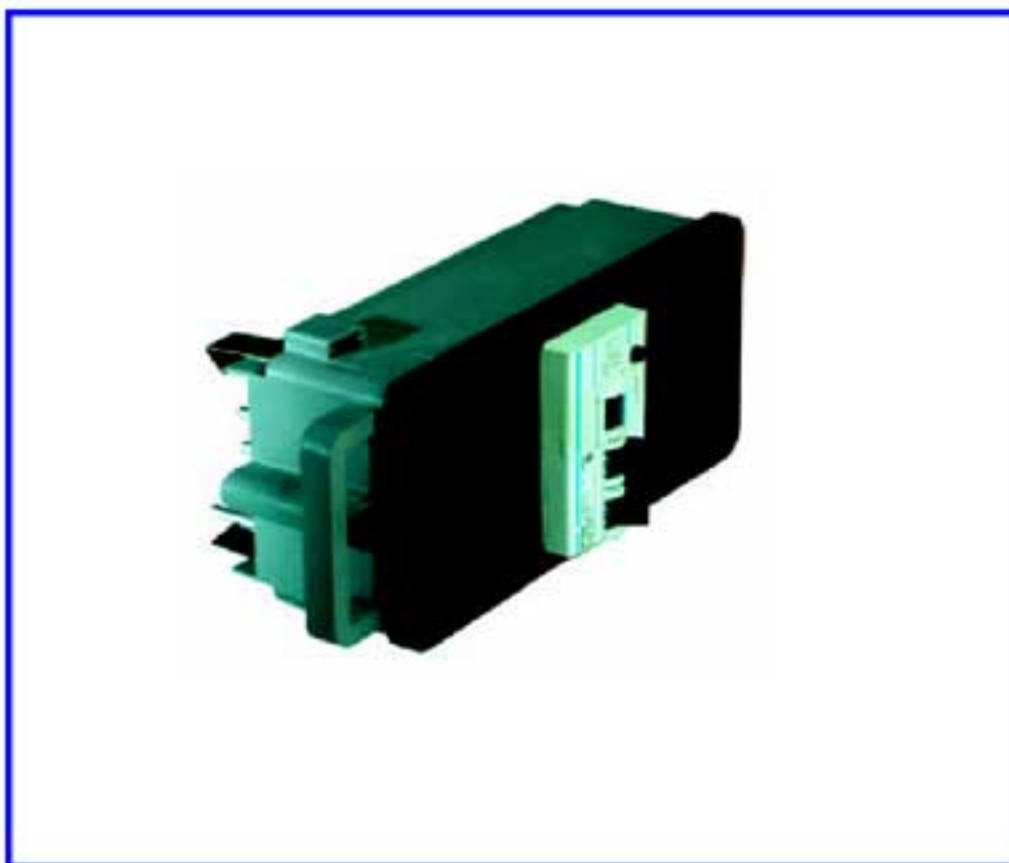
Tap off box 32 A modular

	GPD 4 GPD32CDMD	GPD 5 GPD532CDMD
Tap off material	Plastic	Plastic
Conductor material	Al+Sn	Al+Sn
Max cable section	6 mm ²	6 mm ²
Maximum entrance cable	38 Ø mm	38 Ø mm
MCB number of modules on DIN rail	4	4
MCB Execution	Not included 4P+PE	Not included 4P+PE



Tap off box 63 A with off load isolator

	GPD 4 GPD63CDFU	GPD 5 GPD563CDFU
Tap off material	Metal	Metal
Conductor material	CU+Sn	CU+Sn
Max cable section	16 mm ²	16 mm ²
Maximum entrance cable	45x35 mm	45x35 mm
Fuse-base type	14x51	14x51
Fuse Execution	Not included 4P+PE	Not included 4P+PE



Tap off box 63 A - 4 modules

	GPD 4 GPD63CDMD	GPD 5 GPD563CDMD
Tap off material	Plastic	Plastic
Conductor material	CU+Sn	CU+Sn
Max cable section	10 mm ²	10 mm ²
Maximum entrance cable	38 Ø mm	38 Ø mm
MCB number of modules on DIN rail	4	4
MCB Execution	Not included 4P+PE	Not included 4P+PE



Tap off box 63 A - 8 modules

	GPD 4 GPD63CDMD8	GPD 5 GPD563CDMD8
Tap off material	Metal	Metal
Conductor material	CU+Sn	CU+Sn
Max cable section	16 mm ²	16 mm ²
Maximum entrance cable	140x30 mm	140x30 mm
MCB number of modules on DIN rail	8	8
MCB Execution	Not included	Not included



Fixing hanger

GPD 4/5		
A	Code	Kg
63	GPDSSU	0.200
100	GPDSSU	0.200
160	GPDSSU	0.200

Every GPD element length requires 2 fixing hangers.



Flexible element for elbows

GPD 4		GPD 5	
A	kg	kg	Code
63	1,69	1,75	GPD4FX06
100	1,74	1,77	GPD4FX10
160	2,13	2,30	GPD4FX16

In every flexible element is always included one joint.



"T" element

GPD 4		GPD 5	
A	Code	Code	
63	GPD406T	GPD506T	
100	GPD410T	GPD510T	
160	GPD416T	GPD516T	

In every "T" element are included 2 joints.



Spare joint

GPD 4/5	
A	Code
63/100	GPDO017
160	GPDO022

The coupling joint is included with each straight element, for the spare part see above.

GPD Technical data

<i>Nominal current</i>	I_n	[A]	63	100	160
<i>Material of phase and neutral conductor</i>			Al	Al	Cu
<i>Operational voltage</i>	U_e	[V]	500	500	500
<i>Insulation voltage</i>	U_i	[V]	750	750	750
<i>Frequency</i>	f	[Hz]	50	50	50
<i>Cross section phases</i>	S_F	[mm ²]	30	40	40
<i>Cross section neutral</i>	S_N	[mm ²]	30	40	40
<i>Cross section of protective conductor (Al housing)</i>	S_{PE}	[mm ²]	222(Al)	222(Al)	222(Al)
<i>Cross section of hearth bar (5th bar)</i>	S_{PE}	[mm ²]	48	48	48
<i>Phase resistance (20°C)</i>	R_{20}	[mΩ/m]	0,9	0,675	0,425
<i>Phase reactance</i>	X	[mΩ/m]	1,57	1,18	0,51
<i>Phase Impedance (20°C)</i>	Z	[mΩ/m]	1,81	1,36	0,66
<i>PE Resistance (housing)</i>	R_{PE}	[mΩ/m]	0,122	0,122	0,122
<i>PE Reactance (housing)</i>	X_{PE}	[mΩ/m]	0,014	0,014	0,014
<i>PE Impedance (housing)</i>	Z_{PE}	[mΩ/m]	0,123	0,123	0,123
<i>Losses for the Joule effect at nominal current</i>	P_i	[W/m]	10,72	20,25	32;64
<i>Rated short circuit time current</i>	I_{cw} (1s)	[kA]	3,5	5	6
<i>Peak current</i>	I_{pk} (1s)	[kA]	5,3	7,5	10,2
<i>Rated short circuits time of neutral bar</i>	I_{cw} (1s)	[kA]	2,1	3	3,6
<i>Peak current of neutral bar</i>	I_{pk} (1s)	[kA]	3,2	4,5	5,4
<i>Rated short circuit time of PE</i>	I_{cw} (1s)	[kA]	3,5	5	6
<i>Peak current of PE</i>	I_{pk}	[kA]	5,3	7,5	10,2
<i>IP degree of protection</i>	IP	-	42/55	42/55	42/55
<i>IK degree of protection</i>	IK	-	09	09	09
<i>Calorific power</i>		kcal/m	1071	1071	1071

Voltage drop with distributed load [ΔV]

			63 [A]	100 [A]	160 [A]
$\cos\varphi = 0,7$		[mV/m]	99,5	119,0	96,5
$\cos\varphi = 0,8$		[mV/m]	95,4	113,5	95,0
$\cos\varphi = 0,9$		[mV/m]	87,0	103,5	90,0
$\cos\varphi = 1,0$		[mV/m]	55,0	65,5	66,0

Schedule of ratings for the ambient temperature on average 24 h

	18°C	25°C	30°C	35°C	41°C	45°C	50°C
K	1,16	1,12	1,08	1,04	1	0,84	0,70

Conformity declaration

GPD busbar described in this publication complies with the following standards

IEC60439-1 IEC60439-2 IEC60529 CEI EN50102 DIN VDE 0660 parte 500
CEI EN60439-1 CEI EN60439-2 CEI EN60529 DIN VDE 0660 parte 502

Test types

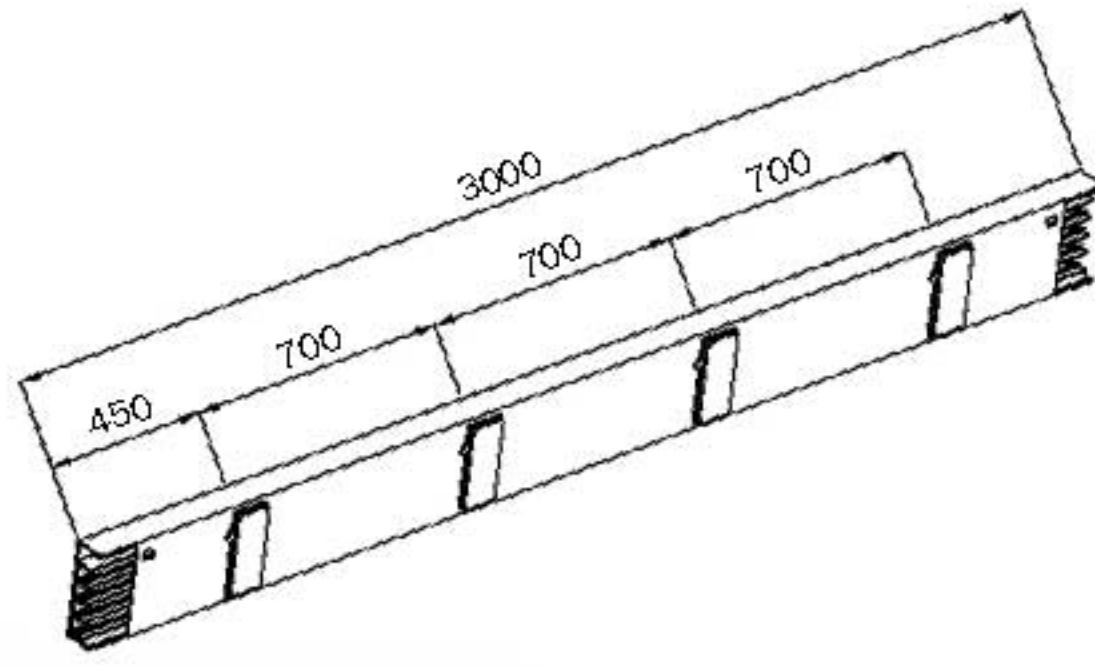
- | | |
|---------------------------------------|---------------------------------------|
| Short-circuit resistance | Resistance to heavy loads |
| Casing degree of protection (IP code) | Protection countermeasures |
| Insulation resistance | Protective circuit efficiency |
| Overheating limit | Air and surface distances |
| Wiring, electrical operation | Insulation |
| Applied voltage resistance | Casing degree of protection (IK code) |
| Operation: | |

The product object of this declaration exceeds the test types above mentioned and therefore this material is marked:

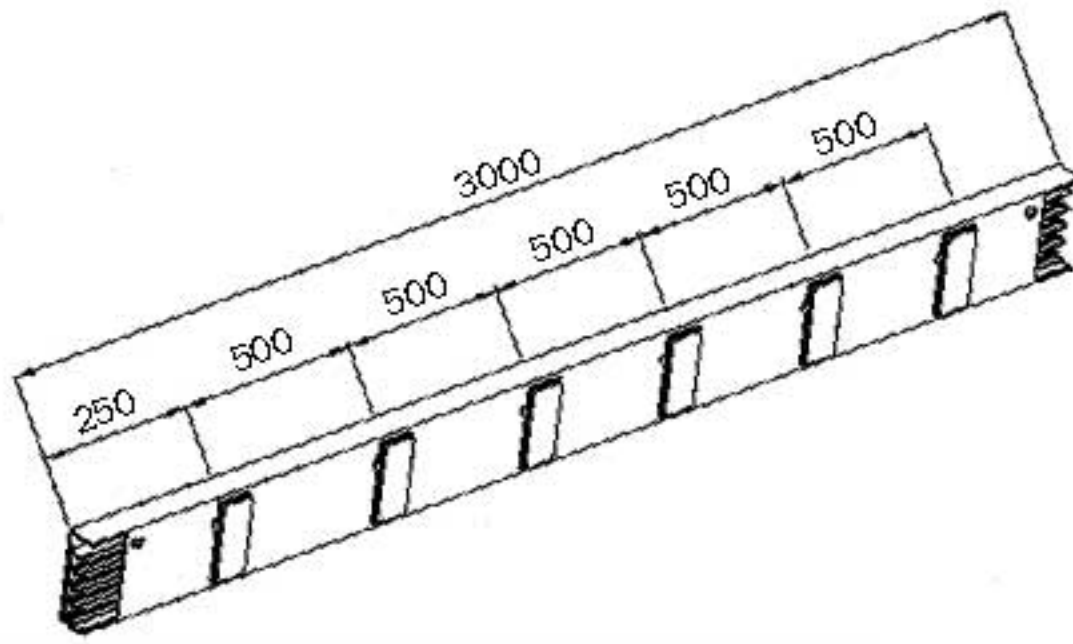


Certifications

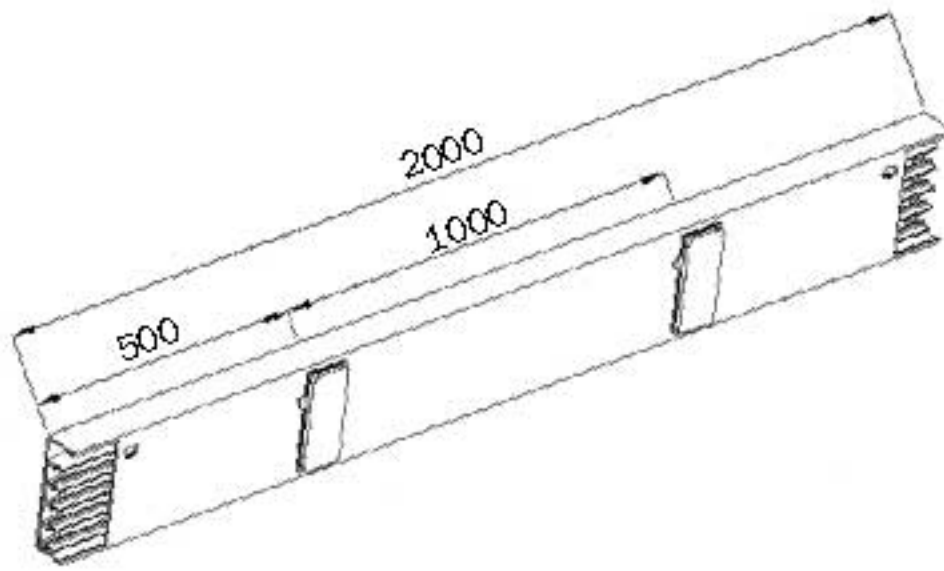




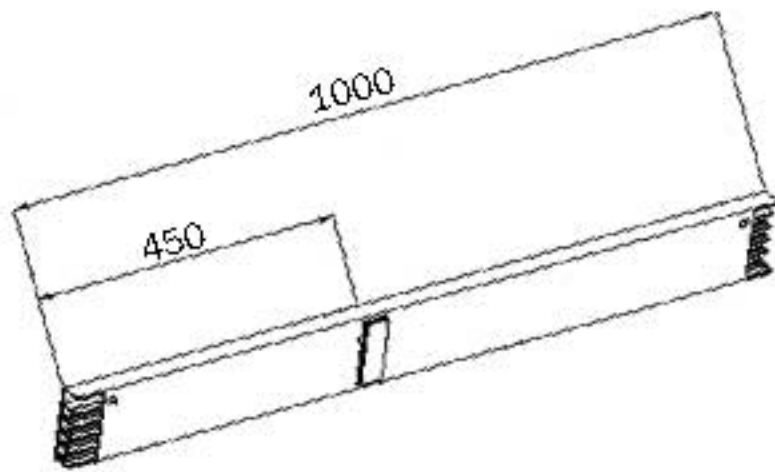
■ **Straight element 3 m**



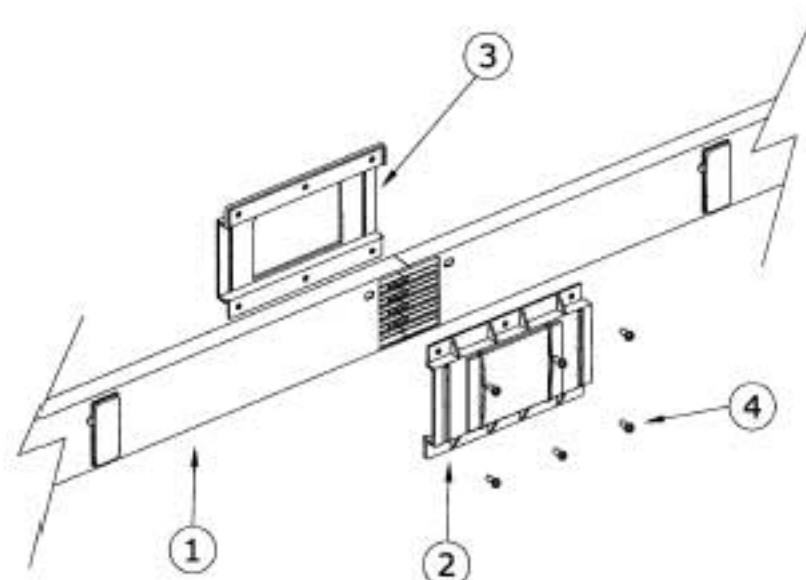
■ **Straight element 3 m - 6 plug-in points**



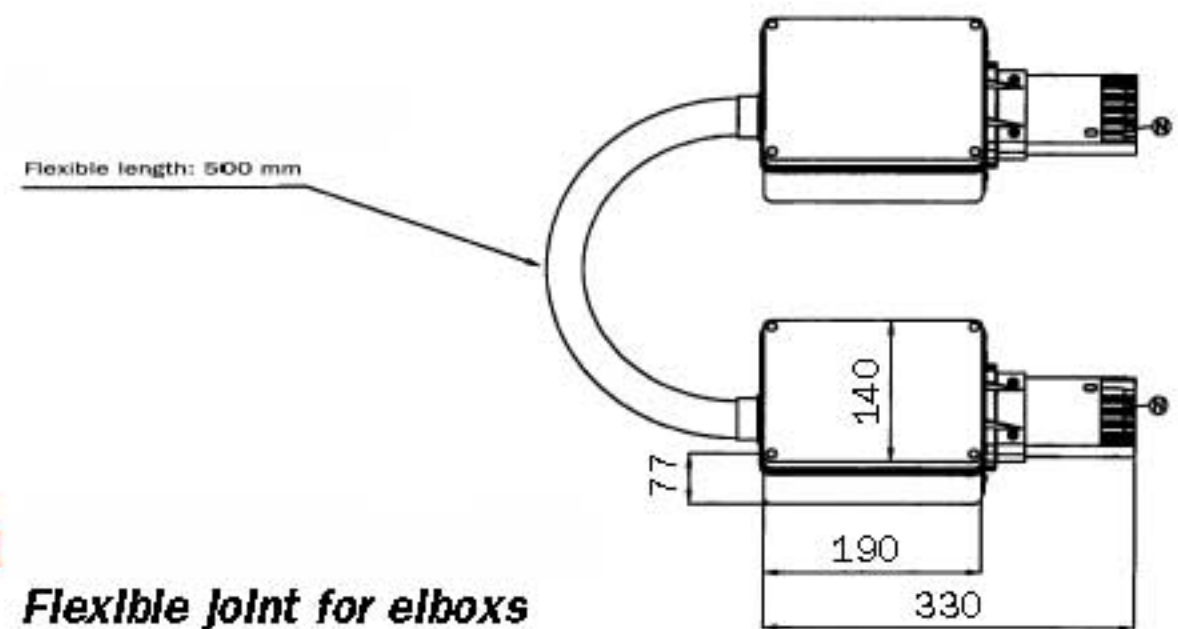
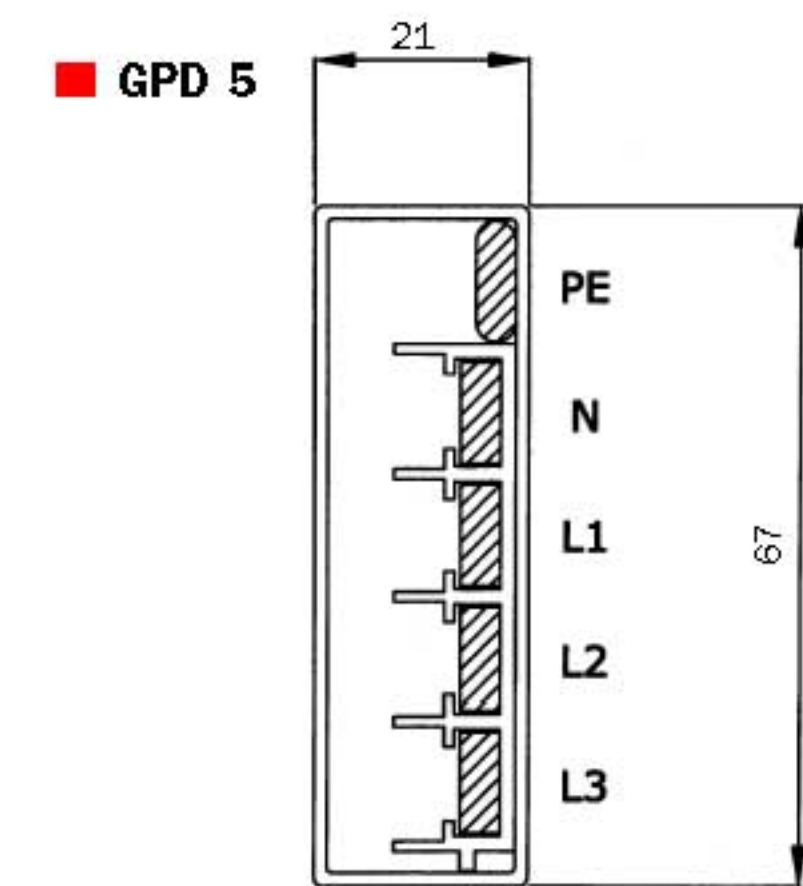
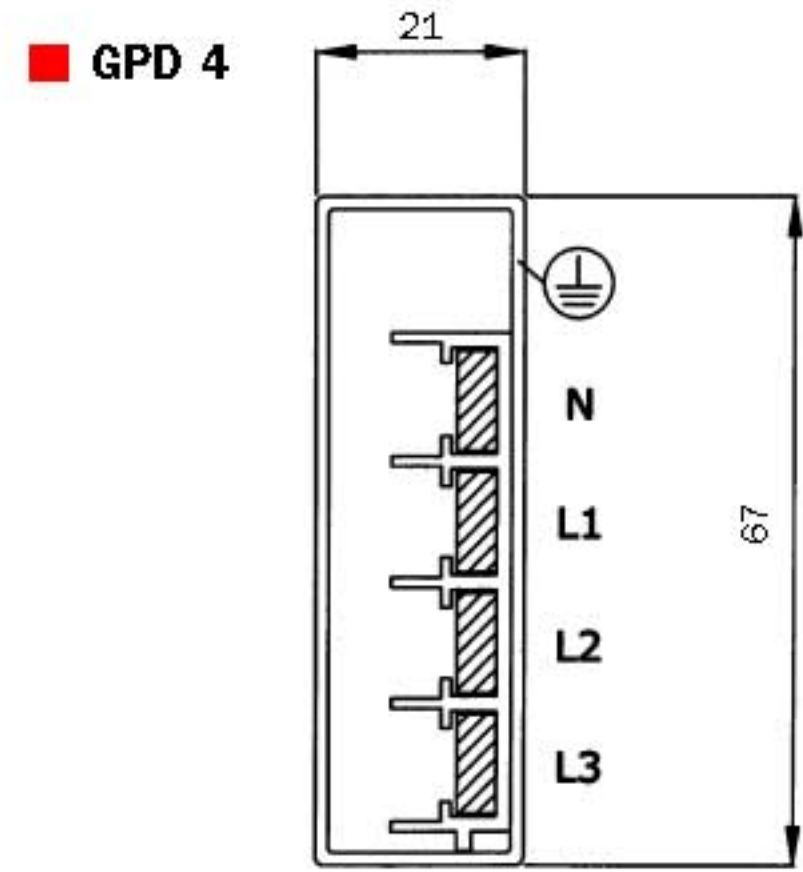
■ **Straight element 2 m**



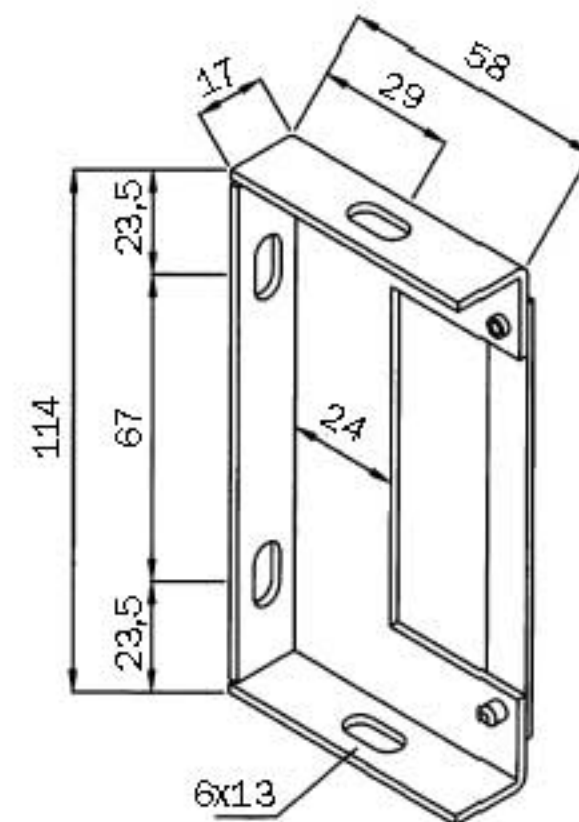
■ **Straight element 1 m**



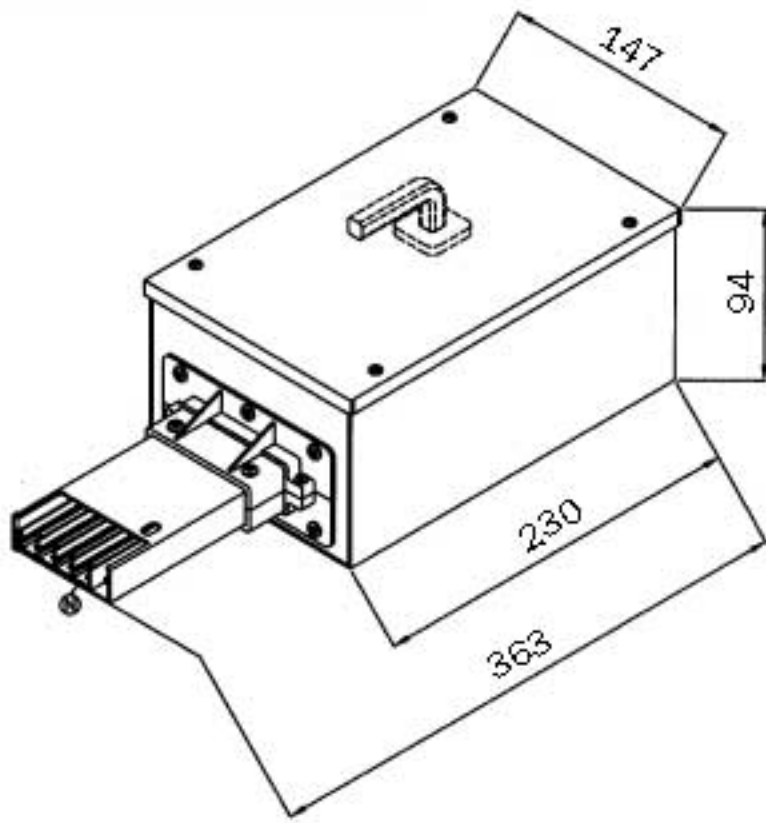
■ **Joint**



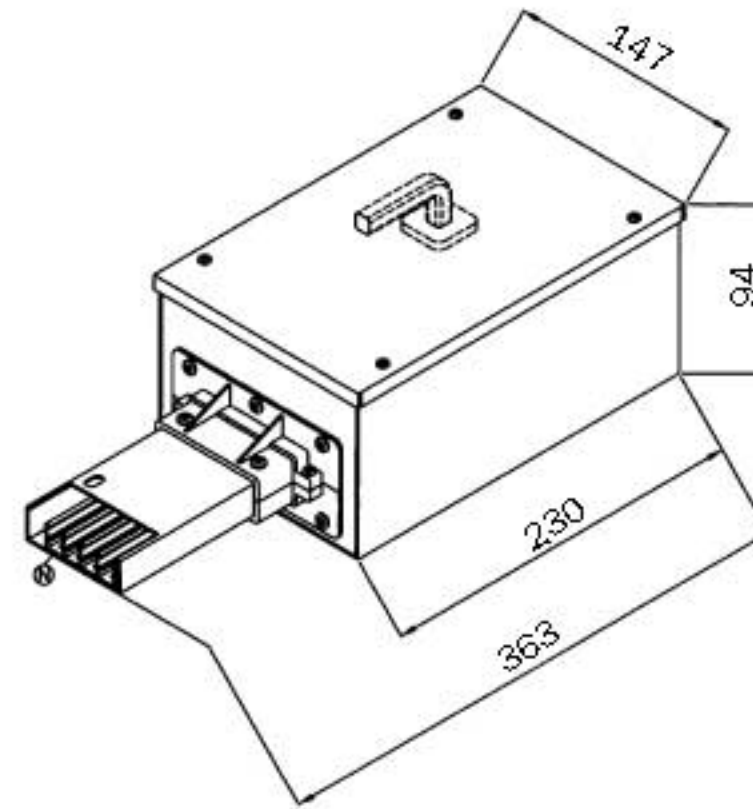
■ **Flexible joint for elbows**



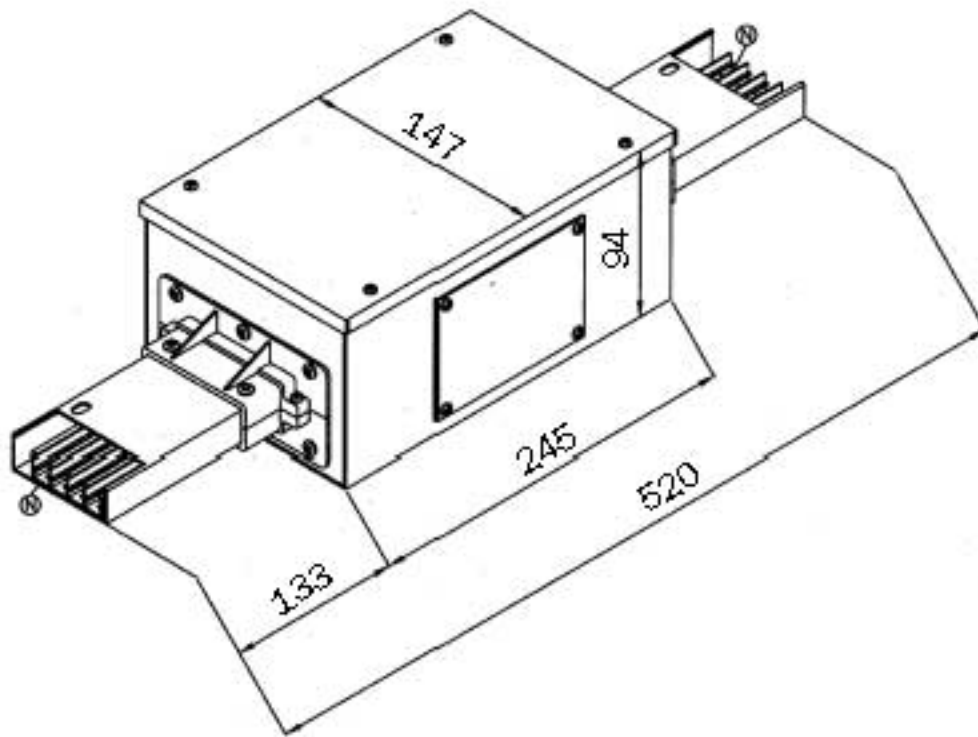
■ **Fixing hanger**



End feed box LH



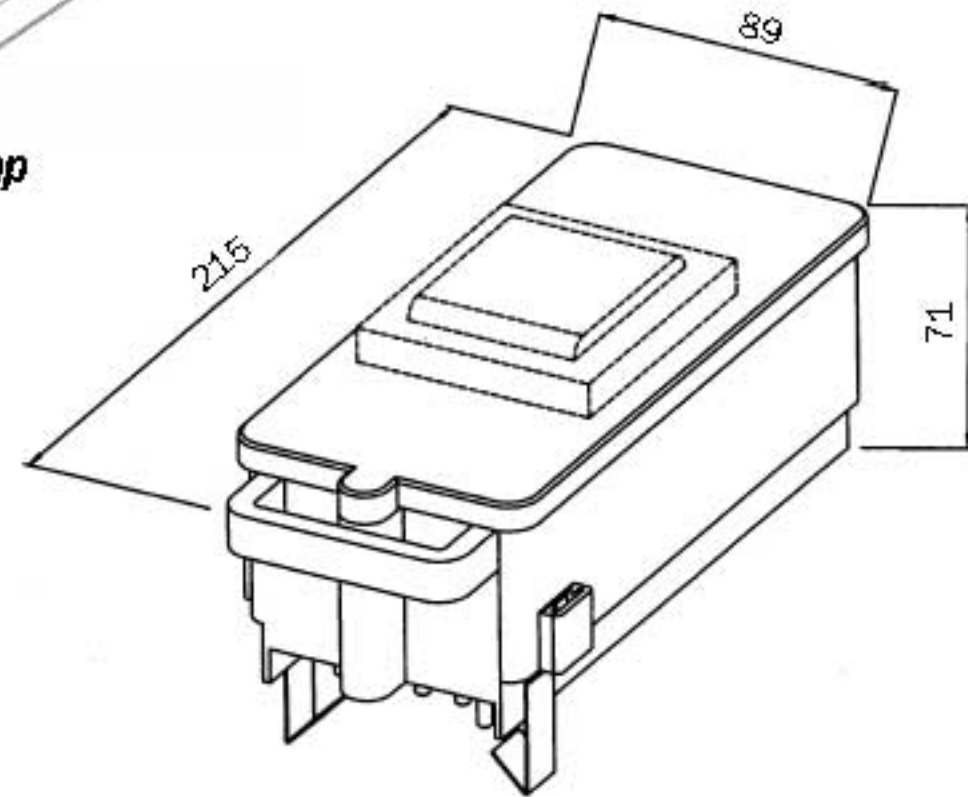
End feed box RW



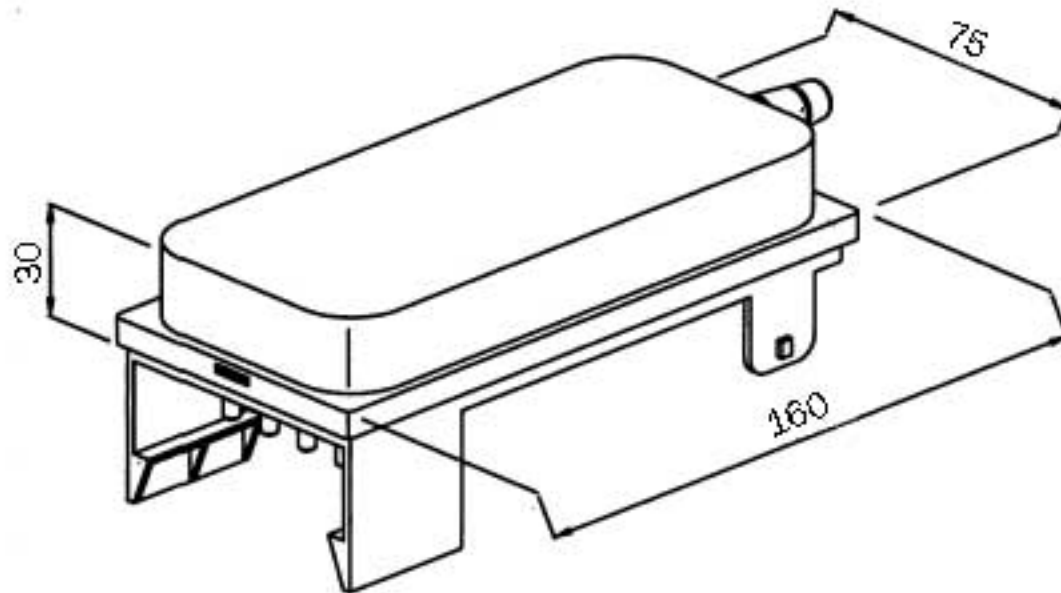
Centre feed unit



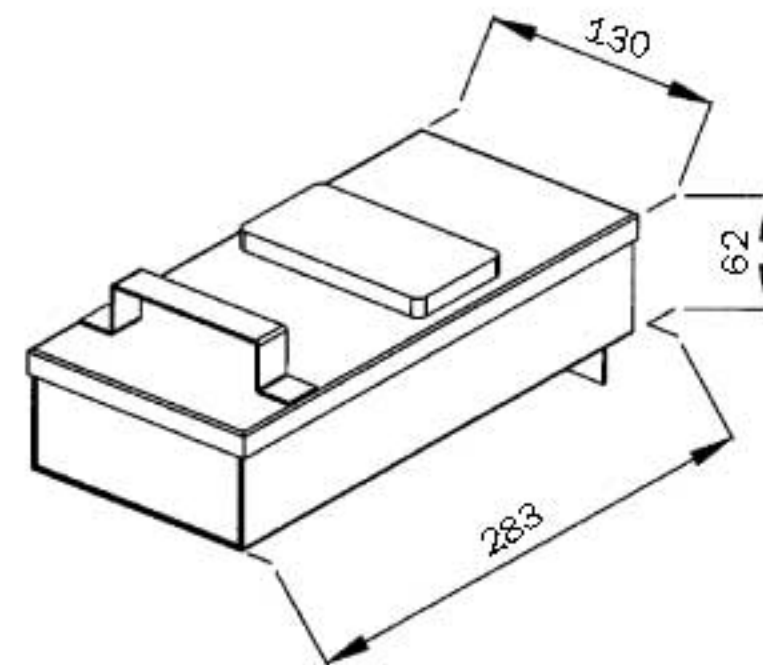
End cap



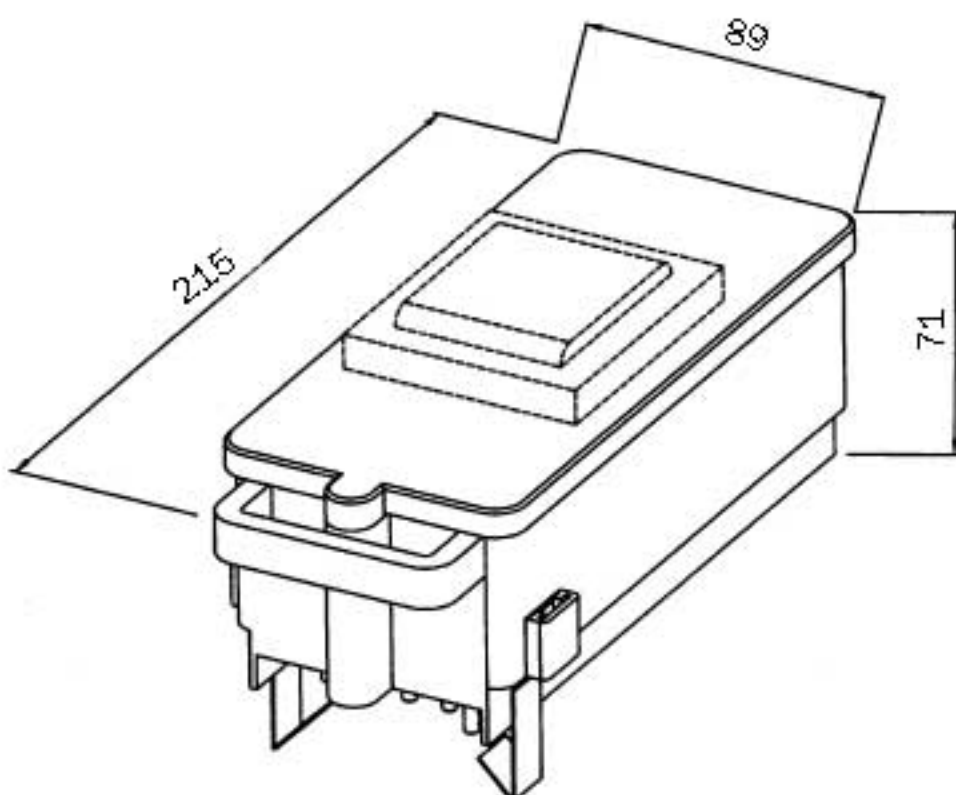
Tap off box 32 A



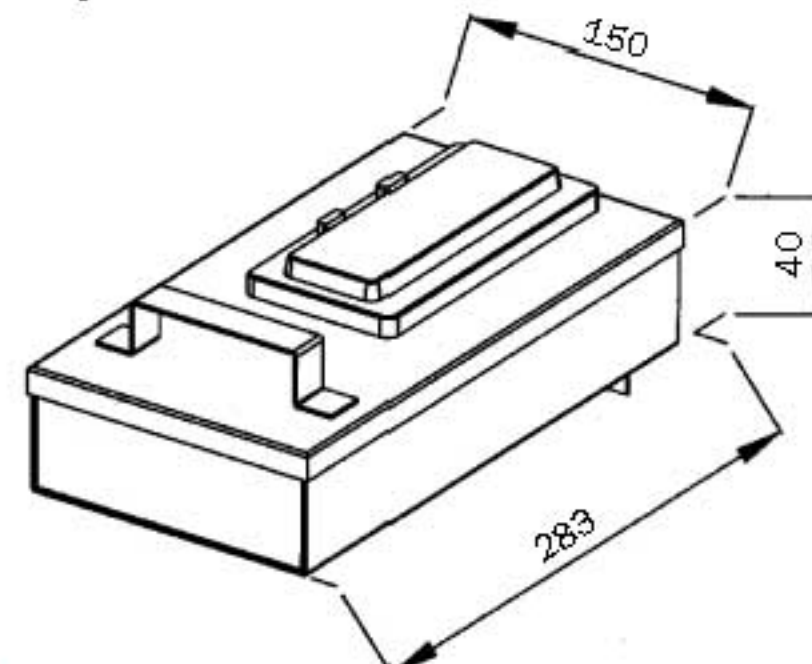
Tap off box 16 A



Tap off box 63 A with fuse bases



Tap off box 63 A - 4 modules



Tap off box 63 A - 8 modules