

Product Overview International Edition

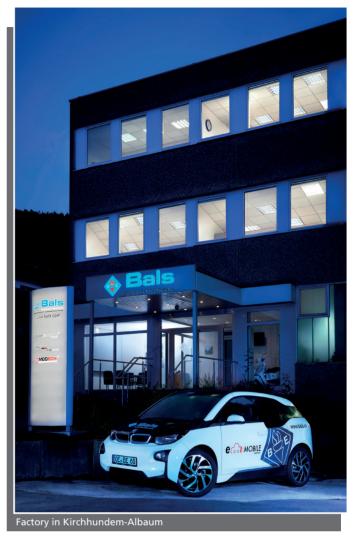


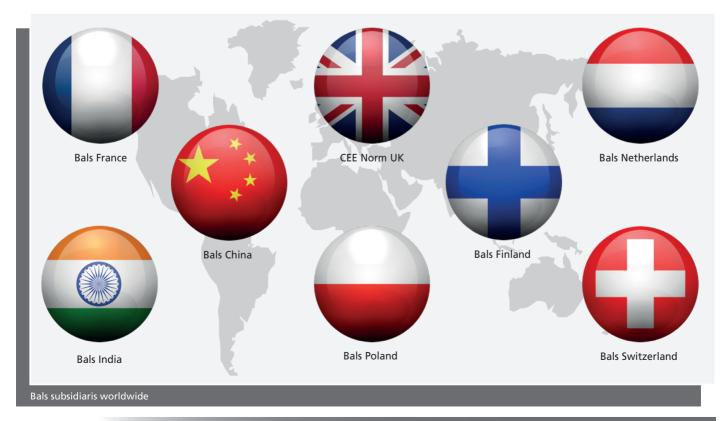
BALS ELEKTROTECHNIK - THE RIGHT CONNECTION - MADE IN GERMANY -

With half a century of expertise and experience, Bals has become a quality brand all over the world and is renowned for its innovation, reliability and service.

For more than 50 years, we have been producing CEE plugs and connectors for the world markets. From day one we have focussed on the highest level of quality "Made in Germany". Our factories in Kirchhundem-Albaum and Freiwalde have highly skilled and motivated teams, the very latest manufacturing facilities and a highly efficient logistics system.

Our product portfolio ranges from plugs, phase inverters, connectors, sockets outlets and combinations units to special application devices. Numerous certifications from German and foreign certification institutes, as well as registered designs and patents, document the high technical standard of our products. A unique quality feature which has been developed exclusively by Bals is the maintenance-free Quick-Connect technology.





A MODERN PRODUCTION PROCESS - PREMIUM QUALITY FOR INDUSTRIAL REQUIREMENTS -

The ISO-9001-certified production process in all factories ensures the high product quality typical for which Bals is famous.

Modern injection moulding machines and automatic production lines guarantee the consistently high level of quality that you expect from a cableing manufacturer.

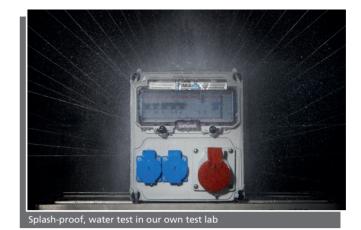
Selected raw materials, a modern production process as well as continuous inspection and quality control ensure that you can rely on our combination units, plugs and sockets – one hundred percent, day by day, in every situation.

The high quality of the Bals devices, is reflected in their quality features:

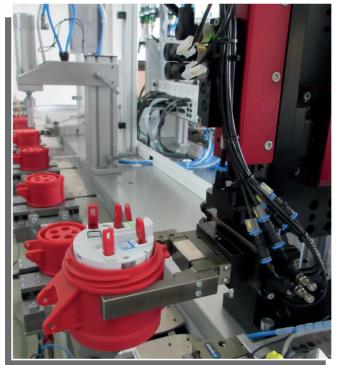
break-proof, dimensionally stable, self-extinguishing, abrasion-, cold-, and heat-resistant.

Bals products convince by long service life and reliable operation.

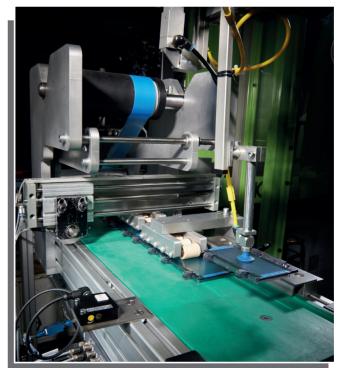
Our presence in more than 80 countries worldwide means that we are always close to the needs of customers. Bals products are also approved in North America, China and South Africa and are therefore ideal for use worldwide.







State-of-the-art assembly lines with integrated automatic testing machines



... and integrated removal function

16A and 32A	MADE IN	GERMANY	QUI	CK≣	CO	NNECT by Bals
Quick-Connect Surface Mounting Socket Outlet • Screwless terminals • Kontex contact • Protection degree IP44	QUICK CONNECT by Bak		5 3 72,4 79,1 7 90,0 92,0 9 131,0 142,0 1 98,0 131,0 142,0 1 98,0 34,5 8,6 3 99,0 98,0 9,0 9 9,0 9,0 9,0 9 9,0 9,0 9,0 9 9,0 9,0 9,0 9 9,0 9,0 9,0 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0 9,0 9 9 9,0	2,0 92,0 42,0 142,0 03,0 106,0 4,0 84,0 0,0 30,0 ,0 9,0 ,5 5,5 ,0 9,0 1,0 21,0	16 5 4 32 3 2 32 4 4	V Art. No. Qty 230 118955 10 400 11905 10 400 112001 10 230 11919 10 400 11922 10 400 11922 10
Quick-Connect Surface Mounting Socket Outlet • Screwless terminals • Kontex contact • Protection degree IP44	QUICK CONNECT by Bals	d 103,0 108, e 51,0 59,0 f - 11,0 h e 4,1 5,1 i 4,5 4,5 k 40,0 - l M20 M20	5 3 75,0 83,0 8 0 10,0 126,0 1 0 131,0 130,0 1 0 141,0 130,0 1 0 15,0 1,0 1 0 59,0 68,0 6 1,1,0 1,0 1 5,1 5,5 5 4,5 6,5 6	26,0 126,0 55,0 155,0 30,0 136,0 8,0 68,0 1,0 11,0 ,5 5,5 ,5 6,5 0,0 80,0 125 M25	16 4 4 16 5 4 32 3 2 32 4 4	V Art. No. Qty 230 11930 10 400 11907 10 400 11906 10 230 11949 10 400 11956 10 400 11956 10
Quick-Connect Panel Mounting Socket Outlet • Straight • Screwless terminals • Kontex contact • Flange 75 x 75 mm • Protection degree IP44	QUICK CONNECT by Bab	F 16 16 16 Part 3 4 a 75,0 75,0 b 75,0 75,0 c 60,0 60,0 d 60,0 60,0 d 60,0 5,5 f 7,0 7,0 h 35,5 35,5 i 50,0 50,0 k 74,0 84,0 I ø 45,0 45,0 m 8,0<	5 3 75,0 75,0 7 75,0 75,0 7 60,0 60,0 60 60,0 60,0 6 5,5 5,5 5 7,0 8,0 8 5,5 5,5 5,0 5 5,10 60,0 6 91,0 94,0 9 91,0 95,5 60,0 6	0,0 60,0 4,0 102,0 0,0 60,0	16 4 4 16 5 4 32 3 2 32 4 4	V Art. No. Qty 230 13686 10 400 13693 10 400 132001 10 230 13703 10 400 13703 10 400 13703 10 400 132002 10
Quick-Connect Panel Mounting Socket Outlet • Angled 20° • Screwless terminals • Kontex contact • Flange 85 x 85 mm • Protection degree IP44	QUICK CONNECT by Bals	Area 16 16 Para 3 4 a 85,0 85,0 b 85,0 85,0 c 70,0 70,0 c 70,0 70,0 d 70,5,5 5,5 f 8,0 80,0 h 46,0 46,0 i 50,0 51,0 lo 57,0 65,0 ∝ 20° 20° 4 MB 264	5 3 85,0 85,0 8 85,0 85,0 8 70,0 70,0 7 5,5 5,5 5 8,0 8,0 8,0 4,0 8,0 8,0 6,5 6,0 6,0 5,5 7,0 7,0 7,0 7,0 7,0 8,0 8,0 8,0 6,0 6,0 6,0 7,00 7,00 7,0	5,0 85,0 0,0 70,0 0,0 70,0 ,5 5,5 ,0 8,0 1,0 61,0 0,0 60,0 8,0 78,0 0° 20°	16 4 4 16 5 4 32 3 2 32 4 4	V Art. No. Qty 230 12749 10 400 12753 10 400 12757 10 230 12761 10 400 12764 10 400 12764 10
Quick-Connect Panel Mounting Socket Outlet • Straight • Screwless terminals • Kontex contact • Flange 75 x 75 mm • Protection degree IP67	QUICK CONNECT by Bab	Arren 16 Arren 2 Arren 4 Arren 3 Arren 4 Arren 4 Arren 4 Arren 4 Arren 4 Arren 4 Arren 4 Arren 7 b 75,0 75,0 c 60,0 60,0 c 7,0 7,0 r 60,0 60,0 c 60,0 60,0 c 7,0 7,0 r	5 3 75,0 75,0 7 75,0 75,0 7 60,0 60,0 6 60,0 60,0 6 5,5 5,5 5 7,0 8,0 8 35,5 5,0 5 5,5 5,0 5 5,5 5,0 5 5,5 5,0 5 5,7 5,0 6 5,7 5,0 6 9,3,0 100,0 1	5,0 75,0 0,0 60,0 0,0 60,0 ,5 5,5 ,0 8,0 0,0 50,0 5,0 65,0 00,0 106,0 0,0 60,0 2,0 17,0	16 4 4 16 5 4 32 3 2 32 4 4	V Art. No. Qty 230 13734 10 400 13739 10 400 13745 10 230 13750 10 400 13756 10 400 13762 10
Quick-Connect Panel Mounting Socket Outlet • Angled 20° • Screwless terminals • Kontex contact • Flange 85 x 85 mm • Protection degree IP67	QUICK CONNECT by data for the set of the set	Ame 16 16 16 Para 85,0 85,0 a 85,0 85,0 b 85,0 85,0 c 70,0 70,0 d 70,0 70,0 e 5,5 5,5 f 8,0 8,0 h 46,0 46,0 i 57,0 57,0 i 57,0 57,0 a 20° 20° 4 MB 114	5 3 85,0 85,0 8 70,0 70,0 7 70,0 70,0 7 5,5 5,5 5 8,0 8,0 8,0 6,0 6,0,0 6,0 6,0 6,0 6,0 70,0 7,0 7	5,0 85,0 0,0 70,0 0,0 70,0 ,5 5,5 ,0 8,0 1,0 61,0 5,0 69,0 8,0 78,0 0° 20°	16 4 4 16 5 4 32 3 2 32 4 4	V Art. No. Qty 230 12813 10 400 12814 10 400 12817 10 230 12819 10 400 12821 10 400 12821 10

Other voltages and frequencies available on request.

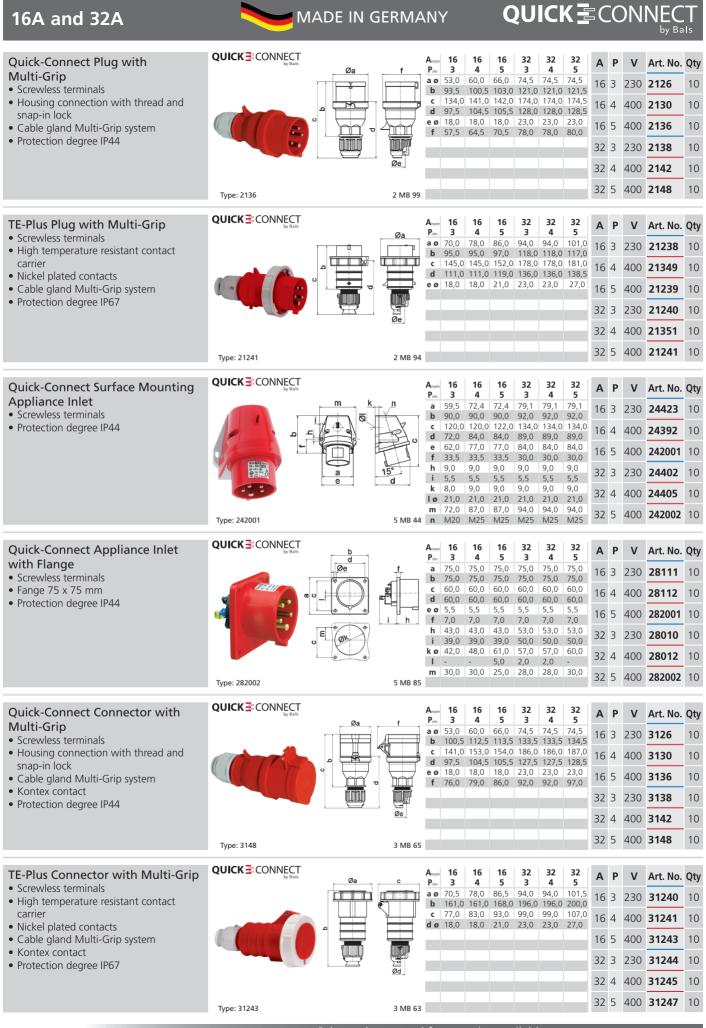
MADE IN GERMANY

16A and 32A

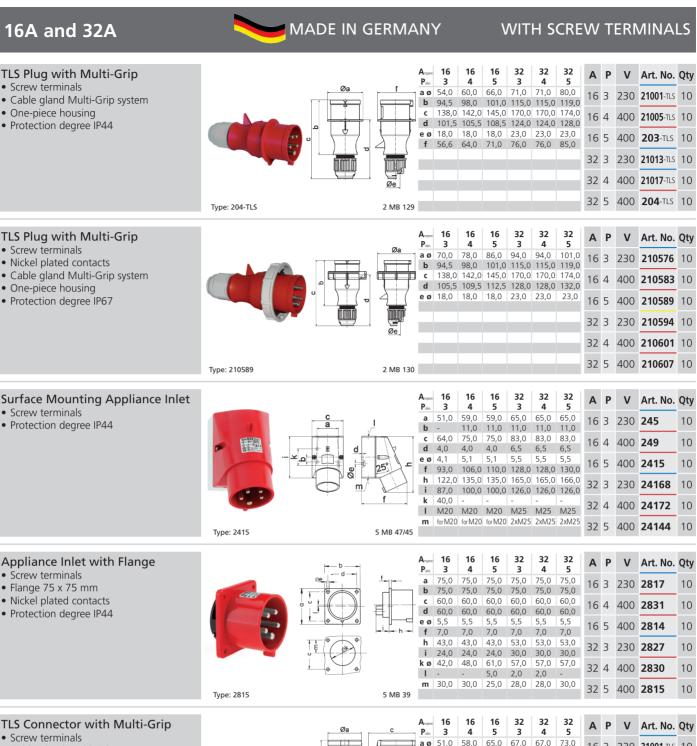
WITH SCREW TERMINALS

Surface Mounting Socket Outlet				Arrpere Poles	16 3	16 4	16 5	32 3	32 4	32 5	Α	P V	Art. No.	. Qty							
Screw terminalsProtection degree IP44		<u>m</u> <u>k</u>	T	a b	59,5			79,1 92,0	79,1 92,0	79,1 92,0	16 3	3 230	11765	10							
			A	c d			131,0 98,0	142,0		142,0	16 4	400	11645	10							
			H i°	e f			, 77,0 33,5	84,0 30,0	84,0 30,0	84,0 30,0	16 !	5 400	100	10							
		a	15°	h	9,0 5,5	9,0 5,5	9,0 5,5	9,0 5,5	9,0 5,5	9,0 5,5	32	3 230	11651	10							
	Later and Andrews	e	d	k	8,0	9,0 21,0	9,0	9,0 21,0	9,0 21,0	9,0 21,0	32	400	11646	10							
	Туре: 101		1 MB 19	m	72,0	87,0 M25	87,0 M25	94,0 M25	94,0 M25	94,0 M25	32 !	5 400	101	10							
• Screw terminals				Arrpere Poles	16 3	16 4	16 5	32 3	32 4	32 5		PV	Art. No.	Qty							
Protection degree IP44		e	<u>_</u>	a b	87,0	100,0	75,0 100,0	126,0	126,0		16 3	3 230	111	10							
	6			d	103,0	108,0	116,0	130,0	130,0		16 4		115	10							
			25	f	-	59,0 11,0		68,0 11,0	68,0 11,0	68,0 11,0	16 !	5 400	102	10							
		m m	d	hø i	4,5	5,1 4,5	5,1 4,5	5,5 6,5	5,5 6,5	5,5 6,5	32 3	3 230	1114	10							
	A second se			1			- M20	M25	80,0 M25	80,0 M25	32 4	400	1118	10							
	Туре: 103		1 MB 7	m	tor M20	tor M20	for M20	2xM25	2xM25	2xM25	32 !	5 400	103	10							
Panel Mounting Socket Outlet		Øe		Ampere	16	16	16	32	32	32	•			04.							
• Straight			E. THÊN Î	Poles	3 75,0	4	5	3 75,0	4 75,0	5 75,0		P V	Art. No.	_							
 Screw terminals Flange 75 x 75 mm 	•		₫	b	75,0 60,0	75,0	75,0 60,0	75,0	75,0 60,0	75,0 60,0	16 3		13001	-							
Protection degree IP44	177			d		60,0 6	60,0 5,5	60,0 5,5	60,0 5,5	16		1324	10								
				f	7,0	7,0 26,0	7,0 17,0	8,0 36,0	8,0	8,0 19,0	16 !		13005	10							
				i	51,0	53,0 80,0	53,0 6	62,0 90,0	62,0 90,0	,0 62,0	32 3		13007	-							
			١ø	lø 45,0 45,0 5	55,0	5,0 60,0 60,0	60,0		32 4		13011	10									
	Туре: 1333		4 MB 4					·			32 !	5 400	1333	10							
Panel Mounting Socket Outlet		Øe		Arrpere	16 3	16 4	16 5	32 3	32 4	32 5	А	PV	Art. No.	. Qty							
 Angled 20° Screw terminals 				a	85,0	85,0	85,0	85,0	85,0	85,0	16 3	3 230	12080	10							
• Flange 85 x 85 mm											c d		85,0 70,0 70.0	85,0 70,0 70,0	85,0 70,0 70,0	85,0 70,0 70,0	85,0 70,0 70,0	16	400	12500	10
Protection degree IP44									eø 5,5 5,5	5,5 5,5 8,0 8,0	5,5	5,5	5,5 8,0	16 !	5 400	12078	10				
										h 30,0 30,0 i 48,0 50,0	30,0 5		50,0	0,0 50,0	32 3	3 230	12310	10			
		*	Å	k I	57,0	65,0 65,0		78,0 78,0	78,0		32	400	12311	10							
	Type: 12078		4 MB 26	_		20°	20°	20°	20°	20°	32	5 400	1215	10							
			1.11.5 20								_										
Panel Mounting Socket OutletStraight		Øe	8	Ampere Poles	16 3	16 4	16 5	32 3	32 4	32 5	Α	PV	Art. No.	. Qty							
Screw terminals				b	75,0 75,0	75,0	75,0 75,0	75,0	75,0 75,0	75,0	16 3	3 230	1372	10							
Flange 75 x 75 mmProtection degree IP67	VEL	an the state of th		d	60,0	60,0 60,0	60,0 60,0	60,0 60,0	60,0 60,0	60,0 60,0	16 4	400	1376	10							
		, d		f	5,5 7,0	5,5 7,0	5,5 7,0	5,5 8,0	5,5 8,0	5,5 8,0	16 !	5 400	1382	10							
		(•	<u> -11</u>	h i	57,0	26,0 58,0	17,0 57,0	36,0 65,0	36,0 65,0	65,0	32 3	3 230	13024	10							
				1	45,0	83,0 45,0	55,0	60,0	60,0		32 4	400	13028	10							
	Туре: 1370	<u> </u>	4 MB 5	m	3,5	7,0	11,5	12,0	12,0	17,0	32 !	5 400	1370	10							
Panel Mounting Socket Outlet		Øa		Arrpere	16	16	16	32	32	32	٨	ΡV	Art. No.	Otv							
Angled 20°		Øe		P _{oles}	3 85,0	4 85,0	5 85,0	3 85,0	4 85,0	5 85,0) 12231	-							
Screw terminalsFlange 85 x 85 mm	1010	and the second s	A		85,0 70,0	85,0 70,0	85,0 70,0	85,0 70,0	85,0 70,0	85,0	16 4		12502	-							
Protection degree IP67		d	f	еø		70,0 5,5	70,0 5,5	70,0 5,5	70,0 5,5	70,0 5,5	16 !		12302	-							
			h i			8,0 30,0	8,0 30,0		8,0 50,0		32		12084	-							
		(OK)		i k	57,0	57,0 65,0	59,0 70,0	67,0 78,0	67,0 78,0		32		12327	10							
				1	57,0	65,0	70,0	78,0	78,0	78,0	52 4	- 400	12529	10							
	Туре: 12084		4 MB 22	_	20°	20°	20°	20°	20°	20°	32 !	5 400	1264	10							

Other voltages and frequencies available on request.



Other voltages and frequencies available on request.



- Cable gland Multi-Grip system
- One-piece housing
- Protection degree IP44

230 31001-TLS 10 16 3 **b** 145,0 148,0 156,0 185,0 185,0 185,0 84,0 90,0 94,0 94.0 74,0 102,0 c 16 4 400 31005-TLS 10 eø 18,0 18,0 18,0 23,0 23,0 23,0 400 **303**-TLS 10 16 5 230 31013-TLS 10 32 3 32 4 400 **31017**-TLS 10 32 5 400 **304**-TLS 10 Type: 304- TLS 3 MB 82 TLS Connector with Multi-Grip 16 16 16 32 32 32 A Α ۷ Art. No. Qty Ρ 5 4 5 3 4 Poles Øa 3 • Screw terminals 94,0 70,5 78,0 86,5 94,0 аø 101 16 3 230 310333 10 • Nickel plated contacts M D **b** 154,0 155,0 160,0 190,0 190,0 190,0 • Cable gland Multi-Grip system c 77.0 83.0 93.0 99.0 107.0 107.0 400 310340 10 16 4 eø 18,0 18,0 18,0 23,0 23,0 23,0 • One-piece housing • Protection degree IP67 400 310346 10 16 5 32 3 230 310351 10

3 MB 81

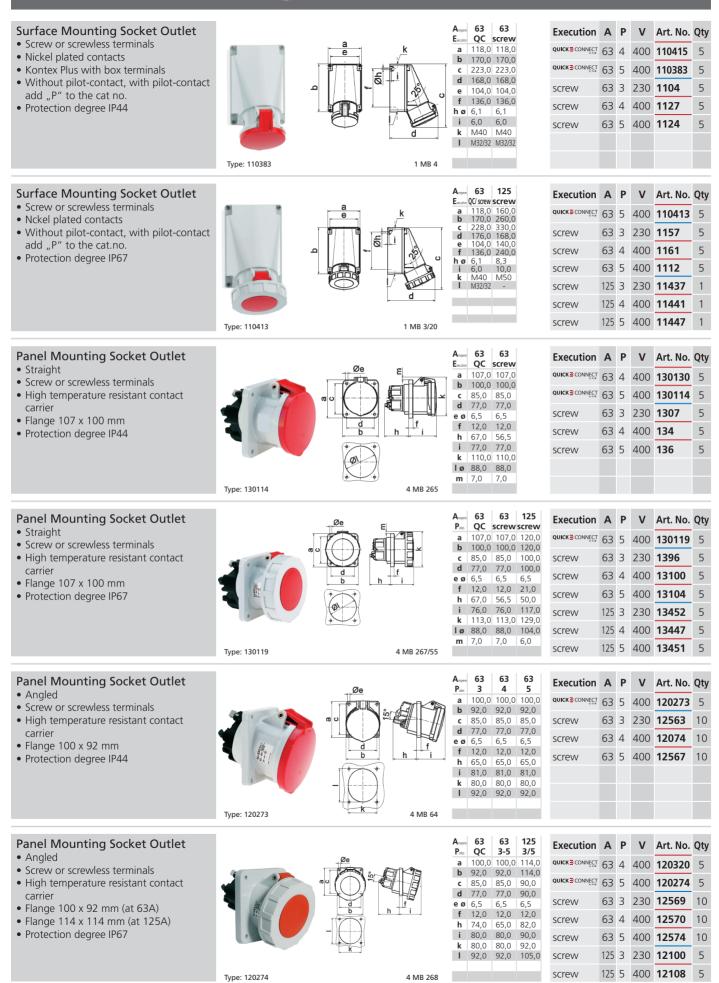
400 310358 10

400 310364 10

32 4

63A und 125A

MADE IN GERMANY

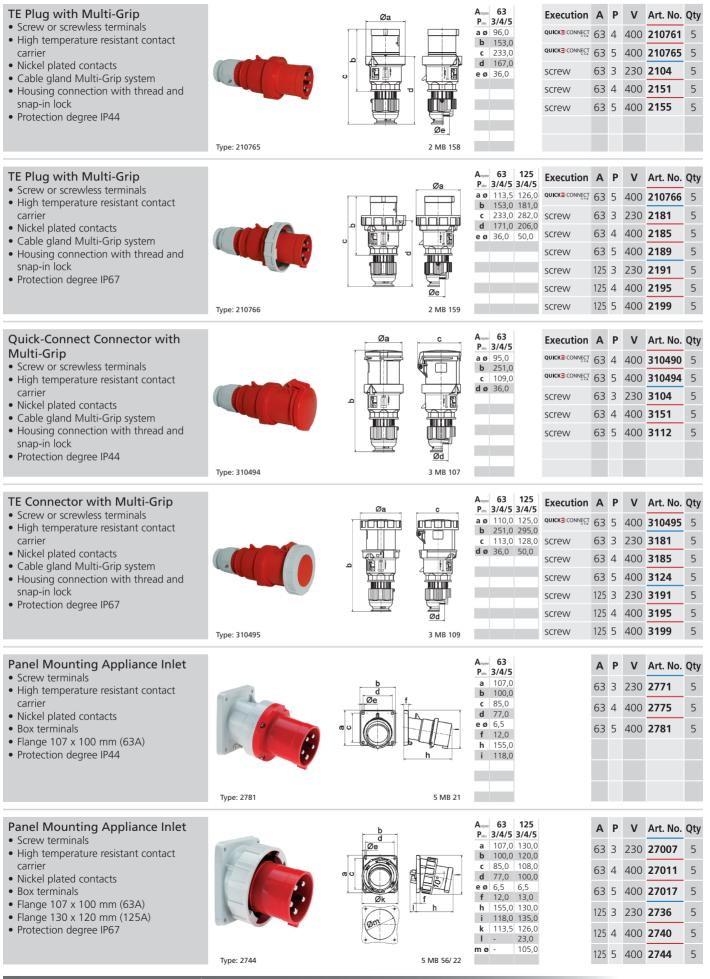


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Other voltages and frequencies available on request.

63A und 125A

MADE IN GERMANY



Other voltages and frequencies available on request.

9

🚸 Bals

MADE IN GERMANY



Other voltages and frequencies available on request.

DOMESTIC-TYPE system D, DK, GB, F

MADE IN GERMANY

RATED CURRENT 16A ~

Domestic Panel Mounting Socket

• Hinged lid and injected flange gasket

Outlet

Screwless terminals

Nickel plated contacts



Outlet Screw terminals • Hinged lid and injected flange gasket (E,F) • Nickel plated contacts (E, F, K)

Domestic Panel Mounting Socket

- Protection degree IP54

Earthing Country S	Type ystem	Colour	Art. No.	Qty
Germany	F	blue	71094	10
Germany	F	grey	71095	10
Belgium/France	Е	blue	7139	10
Belgium/France	Е	grey	7142	10
Denmark	Κ	blue	71071	
UK	G	blue	71142	





Protection degree IP54								
	Earthing Ty Country Sys		Colour	Art. No.	Qty			
	Germany	F	blue	71099	10			
	Germany	F	grey	71100	10			
	Belgium/France	Е	blue	71118	10			
	Belgium/France	Е	grey	71119	10			



ype stem	Colour	Art. No.	Qty
F	blue	7112	10
F	grey	7119	10
Е	blue	7153	10
Е	grey	71028	10
	F F E	F blue F grey E blue	Colour Art. No. F blue 7112 F grey 7119 E blue 7153



Domestic Interlocked Mounting Socket Outlet

- Switched and electrical interlocked
- Protection degree IP67



Type: 7112







and a second sec				
V	Earthing T Country Sy		Colour	Art.
	Germany Belgium/France	F	blue	7370
	Germany Belgium/France	F	grey	7371
A	Germany Belgium/France	F E	black	7372
V	Germany Belgium/France	F E	red	7373

Domestic Plug

• Cable gland Multi-Grip system

• Double earthing system (E/F)

No.

Qty 20

20

20

20

Type: 746

• Spacious connection area

Protection degree IP44



Domestic	Connector
Donnestie	connector

- Cable gland Multi-Grip system
- Spacious connection area
- Optional child protection
- Protection degree IP54



Germany	F	blue	7486	20
Germany	F	grey	7487	20
Germany	F	black	7488	20
Germany	F	red	7489	20
Belgium/France	Е	blue	7490	20
Belgium/France	Е	grey	7491	20
Belgium/France	Е	black	7492	20
Belgium/France	Ε	red	7493	20



• Closure cap • Nickel plated contacts

Domestic Plug

- With cable gland
- Double earthing system (E/F)
- Protection degree IP68

			5		
	Earthing Ty Country Sys		Colour	Art. No.	Qty
2	Germany Belgium/France	F E	blue	736	10
	Germany Belgium/France	F E	grey	737	10

Domestic Connector

- Nickel plated contacts
- With cable gland
- Protection degree IP68



Bals 11

Qty

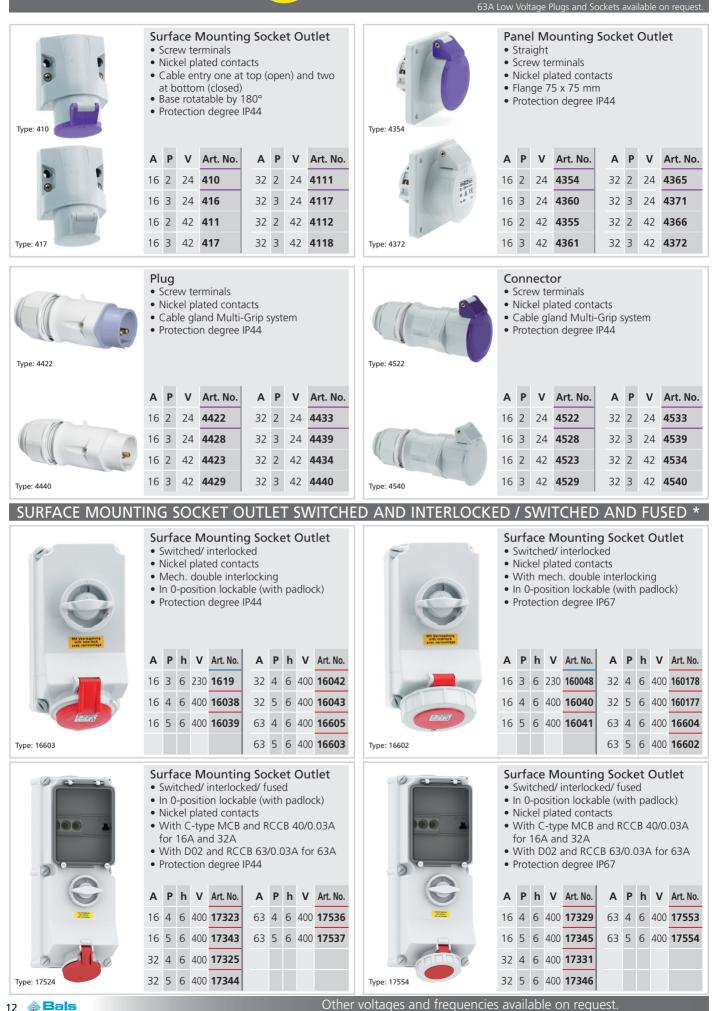
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10

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LOW VOLTAGE

MADE IN GERMANY

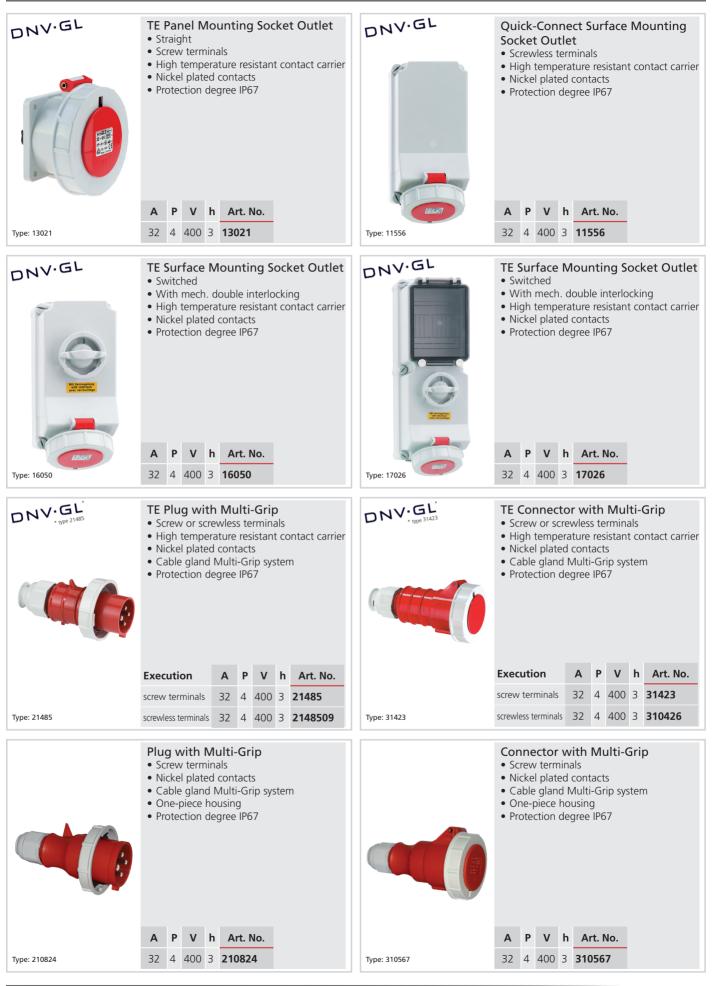


12 🚸 **Bals**

* 🐼 -product range available on request.

REEFER CONTAINER PLUGS AND SOCKETS

MADE IN GERMANY

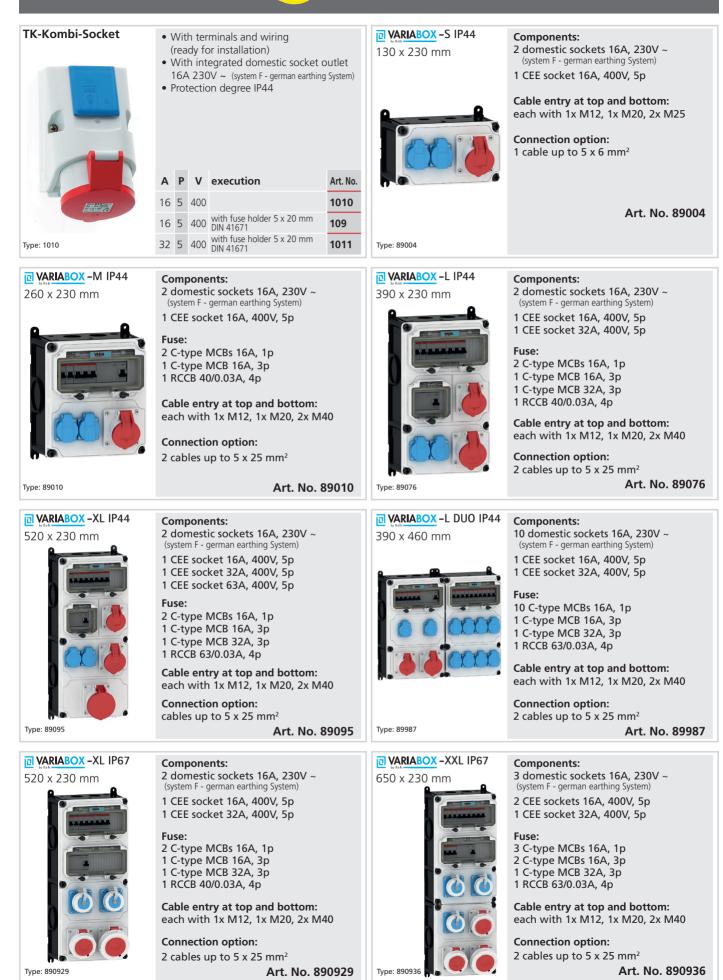


Other voltages and frequencies available on request.

Bals 13

COMBINATION UNITS

MADE IN GERMANY



COMBINATION UNITS

MADE IN GERMANY

MODBOX

MODBOX[®] -Midi 384 x 255 mm Rubber

Type: 5401884

Rubber

Components:

6 domestic sockets 16A, 230V ~ (system F - german earthing System)

Fuse: 6 C-type MCBs 16A, 1p 1 RCCB 40/0.03A, 4p

Cable entry at top and bottom: each with 2x M40

Connection option: 2 cables up to 5 x 25 mm²

6 domestic sockets 16A, 230V ~

(system F - german earthing System)

2 CEE sockets 16A, 400V, 5p

1 CEE socket 32A, 400V, 5p 1 rotary field measuring device

3 C-type MCBs 16A, 1p

1 C-type MCB 16A, 3p

1 RCCB 40/0.03A, 4p

Cable entry/inlet:

Components:

Fuse:

Art. No. 5401884



Type: 5401274



Components:

2 domestic sockets 16A, 230V ~ (system F - german earthing System)

1 CEE socket 16A, 400V, 5p 1 CEE socket 32A, 400V, 5p

Fuse:

2 C-type MCBs 16A, 1p 1 C-type MCB 16A, 3p 1 C-type MCB 32A, 3p 1 RCCB 63/0.03A, 4p

Cable entry at top and bottom: each with 2x M40

Connection option: 2 cables up to 5 x 25 mm² Art. No. 5401274

Components: Mobile combination unit

320 x 245 mm, portable Rubbe Type: 5202245

4 domestic sockets 16A, 230V ~ (system F - german earthing System) 2 CEE sockets 16A, 400V, 5p 2 CEE sockets 32A, 400V, 5p

Fuse: 2 C-type MCBs 16A, 1p 2 C-type MCBs 16A, 3p 2 C-type MCBs 32A, 3p 1 RCCB 63/0.03A, 4p

Cable entry/inlet: CEE plug 63A, 400V, 5p with cable 3 m H07RN-F5G10

Art. No. 5202245

Components: 3 domestic sockets 16A, 230V ~ (system F - german earthing System) 1 CEE socket 16A, 400V, 5p

Cable entry: 1x M25

Connection option: 1 cable up to 5 x 10 mm²

Art. No. 57076

Type: 522590

140 x 140 mm, portable

Mobile combination unit

250 x 210 mm, portable

Uni-Block

Type: 5714

Components: 2 domestic sockets 16A, 230V ~ (system F - german earthing System)

CEE phase inverter 32A, 400V, 5p

2 CEE sockets 16A, 400V, 5p

Cable entry/inlet: CEE plug 16A, 400V, 5p with cable 2 m H07RN-F5G2,5

2 domestic sockets 16A, 230V ~

(system F - german earthing System)

Art. No. 57148

Art. No. 522590



EVOBOX

1000 C

Size S -

340x400x350

Size M 340x560x350

Size L 545x600x400

The new EVOBOX series

- Light and easy-to-handle, using hard Polyethylene
- Overall protection degree of the distributor is IP54
- High mechanical and thermal capacity
- Perfectly stackable
 - Maintenance-free Quick-Connect technology for CEE and domestic sockets
 - Available in 4 different sizes
 - Fuse elements protected under robust operating window
 - Available in 4 different sizes

Configuration on request

1 CEE socket 16A, 400V, 5p Fuse: 2 C-type MCBs 16A, 1p 1 RCCB 40/0.03A, 4p Cable entry/inlet: CEE plug 16A, 400V, 5p with cable 2 m H07RN-F5G2,5

Mobile combination unit Components:

365 x 120 mm, portable

Type: 530003



🌸 Bals 15



Bals Elektrotechnik GmbH & Co. KG D-57399 Kirchhundem-Albaum Phone: +49 27 23/771-0 Fax: +49 27 23/771-330 E-mail: info@bals.com Internet: www.bals.com