



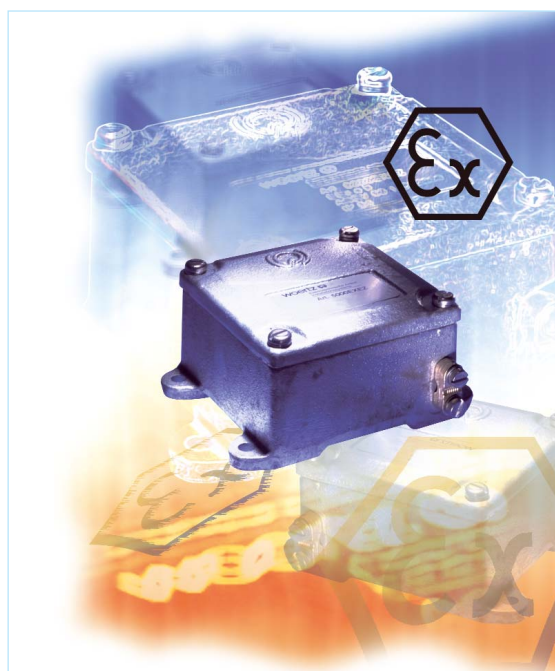
PRODUCT SUMMARY

woertz

TERMINALS



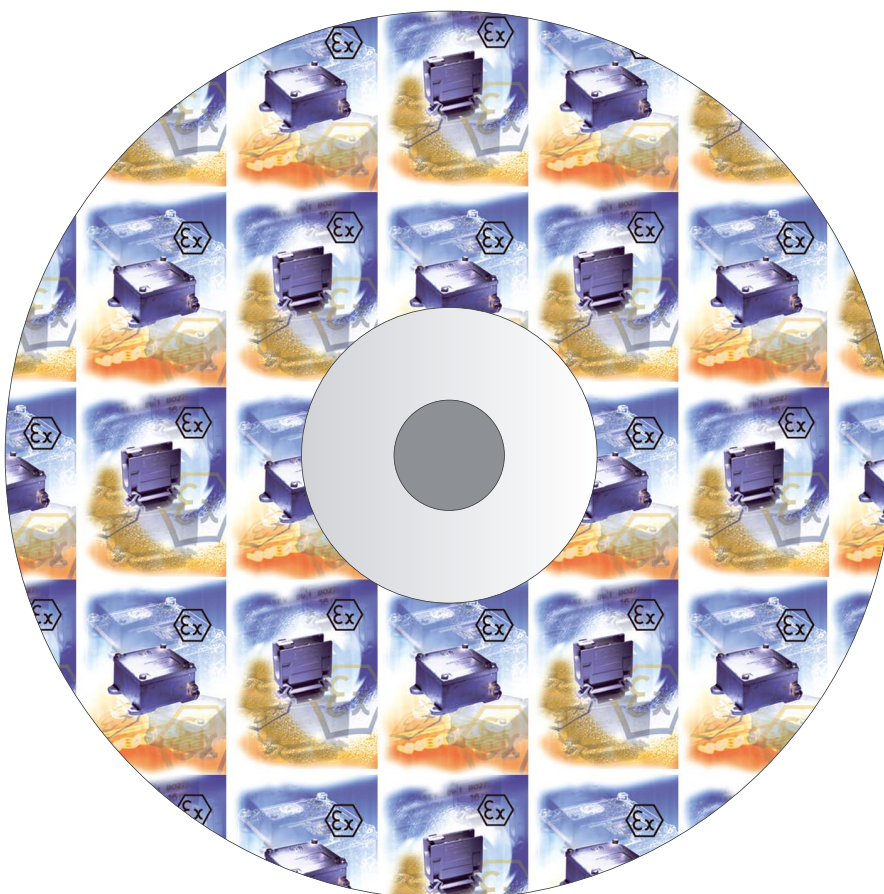
CAST IRON JUNCTION BOXES



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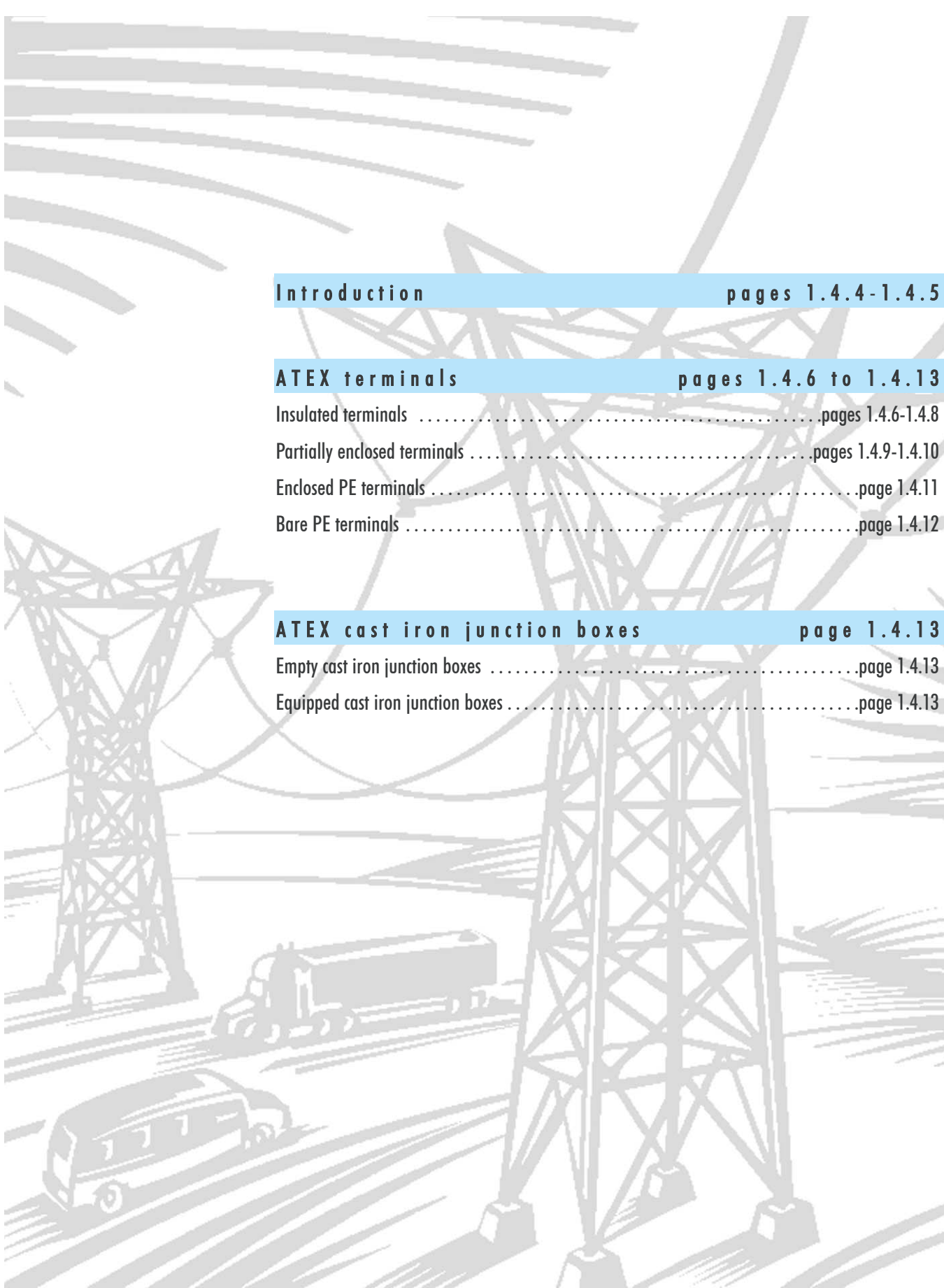
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ATEX CD



Detailed information on our EX terminals and EX cast iron junction boxes, and copies of the prototype verification certificates, the certification documents and the declarations of conformity are available electronically on request.

Order our ATEX CD via
Tel. ++ 41 (0) 61 466 33 33
or visit our online catalog at www.woertz.ch



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Directive 94/9/EC ATEX 95

The harmonization of the member states' national legislation concerning equipment and protective systems intended for use in potentially explosive atmospheres has been achieved with the introduction of **EU directive 94/9**, known as "**ATEX 95**" (Atmosphères Explosibles). ATEX 95 basically rules that appliances, protective systems and installations must be designed in a way that operating them in explosive atmospheres according to their intended use does not endanger the health and safety of persons and, where appropriate, domestic animals or property. Primarily, measures have to be taken to prevent the formation of potentially explosive atmospheres or to prevent ignition in explosive areas.

An **explosive atmosphere** is a mixture of air and flammable substances in the form of gases, vapors, mists and dusts under atmospheric conditions in which, after ignition by flames, hot gases, hot surfaces, or mechanically generated sparks, the combustion spreads to the entire unburned mixture.

If the potentially explosive atmosphere is so large that special protective measures are necessary, the term **explosive area** is used. According to EU directive 94/9, it is classified into special **zones** according to the frequency and duration of the formation of explosive atmospheres.

Zone 1 is an area in which an explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapour or mist is likely to occur in normal operation occasionally. Zone 2 is an area in which such an atmosphere is not likely to occur in normal operation and when it does, it will persist for a short period only.

The Woertz products that can be used in potentially explosive areas, are all approved for use in zone 1 (and therefore also zone 2). Hence, according to EN 50014, they belong to **equipment category 2**.

In the ATEX directive, **the letter "G"** is used for explosive atmospheres caused by gases, vapours or mists.

According to EN 50014, equipments are classified into groups. Woertz products for use in potentially explosive areas belong to equipment group II. **Equipment group II** comprises equipment intended for use in all places likely to become endangered by explosive atmospheres except mines and surface installations of mines.

Equipment can be used for protection against explosions in different ways. The Woertz products for use in potentially explosive areas with gas mixtures have been designed to reduce the probability of spark formation and elevated temperatures. This is called **increased safety "e"**.

The relevant **technical norms**, according to which our products have been tested, are:

EN 50014 (IEC 60079-0)

Electrical apparatus for potentially explosive atmospheres, general requirements

EN 50019 (IEC 60079-7)

Electrical apparatus for potentially explosive atmospheres, increased safety "e"

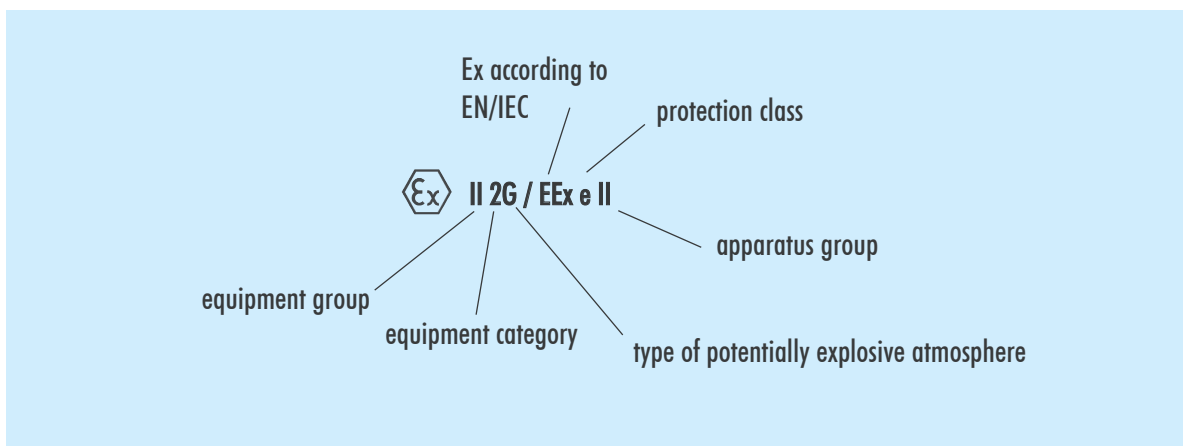
EN 50014 requires checking the maximum surface temperature during operation of Ex products. According to the results, electrical equipment is classified into **temperature classes**. This classification informs about possible areas of use of electrical equipment because the maximum surface temperature always has to be lower than the ignition temperature of the gas or vapor mixture. The tests of our Ex terminals and Ex cast iron junction boxes have shown that the maximum surface temperature never rises above 85°C. Thus, it is guaranteed that the prescribed temperature limit of 80°C, measured at the hot-test parts of the products is never exceeded with continuous operation. The corresponding temperature class is called T6.

We document the compliance with all relevant norms and the ATEX directive 94/9 and the implementation of strict production monitoring based on our management system according to ISO 9001 and our environment management system according to ISO 14001 by issuing a **declaration of conformity**.

The most important usage data and notices about the products can be found in the **instruction manuals** provided with the equipment.

Our Ex terminals and our empty Ex cast iron junction boxes are classified as **Ex components** and are therefore treated as **incomplete items of equipment**. These products can only be used in combination with other electrical equipment. Together, they need an additional certification as a whole, which is provided with the equipped Woertz Ex cast iron junction boxes (empty Ex boxes with our sets of terminals specified exactly for them). A new conformity assessment with an attestation of conformity and new labeling of the boxes is required when other terminal sets than the ones offered in our documentation about cast iron junction boxes are installed.

The labels on our Ex products or on their packaging contain, among other things, the following information:



ATEX 95 has been implemented both in the EU member states and Switzerland. While approvals according to VGSEB (order on apparatus and protective systems for use in areas subjected to the risk of explosion) are restricted to Switzerland, electrical equipment for which a recognized monitoring body has issued a EU prototype test certificate with all required modules according to 94/9/EC can be introduced freely both in Switzerland and the European Union.

Insulated terminals

1 Blind hole terminals

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
5621EX	16	1.5	0.75-1.5	7x0.75	5x1.0	3x1.5	1100	18	1.2
5622EX	14	2.5	1-2.5	7x1	5x1.5	3x2.5	1100	20	2.0

2 Terminals with screw connections

Terminals for DIN15 rails

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
2711BLEX	22-16	1	0.5-1	2x0.5	2x0.75	1x1	275	9	0.5
2711GREX									
2760EX	22-14	2.5	0.5-2.5	2x1	2x1.5	1x2.5	420	6	0.5
30902BLEX	24-12	4	0.2-4	2x1.5	2x2.5	1x4	420	10	0.8
30902EEX									
30902GREX									

Terminals for DIN35 rails series Compact

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
3450BLEX	22-10	4	0.5-4	2x1.5	2x2.5	1x4	550	9	0.7
3450EEX									
3450GEEX									
3450GREX									
3450OREX									
3450ROEX									
3450SWEX									
3450WEEX									
3452/6BLEX	22-10	6	0.5-6	2x2.5	1x4	1x6	750	12	0.7
3452/6EEX									
3452/6GREX									
3452/10BLEX	18-8	10	0.5-10	2x4	2x6	1x10	750	13	1.5
3452/10EEX									
3452/10GREX									
3452/16BLEX	14-4	16	2.5-16	2x6	1x10	1x16	750	13	2.1
3452/16EEX									
3452/16GREX									
30150BLEX	18-14	2.5	0.5-2.5	2x1	2x1.5	2x2.5	550	10	0.6
30150EEX									
30150GEEX									
30150GREX									
30150OREX									
30150ROEX									
30150SWEX									
30150WEEX									

Insulated terminals

2 Terminals with screw connections (continuation)

Terminals for DIN35 rails with multiport

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
3410BLEX	18-8	6	0.5-6	2x2.5	1x4	1x6	750	10	0.7
3410GREX									
3430BLEX	22-12	4	0.5-4	2x1.5	2x2.5	1x4	420	10	0.7
3430EEX									
3430GREX	18-12	4	0.5-4	2x1.5	2x2.5	1x4	420	9	0.7
3430/1PBLEX									
3430/1PEX	22-14	2.5	0.5-2.5	2x1	2x1.5	1x2.5	420	10	0.6
30860BLEX									
30860GREX	18-14	2.5	0.5-2.5	2x1	2x1.5	1x2.5	750	9	0.5
30903BLEX									
30903GREX	18-12	4	0.5-4	3x1.5	2x2.5	1x4	750	9	0.7
30904BLEX									
30904GREX									

Terminals for DIN35 rails series Comfort

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
3424BLEX	18-12	4	0.5-4	2x1.5	2x2.5	1x4	750	10	0.7
3424EEX									
3424GREX									
3425BLEX	18-8	6	0.5-6	2x2.5	2x4	1x6	750	11	1.5
3425EEX									
3425GREX									
3426BLEX	18-6	10	1-10	2x4	2x6	1x10	750	13	1.5
3426EEX									
3426GREX									
3427BLEX	14-4	16	1.5-16	2x6	2x10	1x16	750	13	2.5
3427EEX									
3427GREX									
3428BLEX	14-1/0	50	2.5-50	2x16	2x25	2x35	750	17	2.5
3428EEX									
3428GREX									
3429BLEX	4-3/0	70	4-70	2x35	1x50	1x70	750	26	15.0
3429GREX									
30128BLEX	22-12	2.5	0.5-2.5	2x1	2x1.5	2x2.5	750	10	0.7
30128EEX									
30128GREX									

Insulated terminals

3 Terminals with spring clamp connections for DIN35 rails

Spring clamp terminals with 2 connections

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
35310/3BLEX	26-12	2.5	0.2-2.5	-	-	-	750	10	-
35310/3EEX				-	-	-			
35310/3GREX				-	-	-			
35310/4BLEX	22-10	4	0.5-4	-	-	-	750	12	-
35310/4EEX				-	-	-			
35310/4GREX				-	-	-			
35310/6BLEX	22-8	6	0.5-6	-	-	-	750	12	-
35310/6EEX				-	-	-			
35310/6GREX				-	-	-			
35360/4BLEX	22-10	4	0.5-4	-	-	-	750	12	-
35360/4GREX				-	-	-			

Spring clamp terminals with 3 connections

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
35330/3BLEX	26-12	2.5	0.2-2.5	-	-	-	750	10	-
35330/3GREX				-	-	-			
35330/4BLEX	22-10	4	0.5-4	-	-	-	750	12	-
35330/4GREX				-	-	-			
35330/6BLEX	22-8	6	0.5-6	-	-	-	750	12	-
35330/6GREX				-	-	-			

Spring clamp terminals with 4 connections

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
35340/3BLEX	26-12	2.5	0.2-2.5	-	-	-	750	10	-
35340/3GREX				-	-	-			
35340/4BLEX	22-10	4	0.5-4	-	-	-	550	12	-
35340/4GREX				-	-	-			

Multi-step spring clamp terminals

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
35320/3BLEX	26-12	2.5	0.2-2.5	-	-	-	550	10	-
35320/3GREX				-	-	-			
35370/2EX	26-14	1.5	0.2-1.5	-	-	-	60	8	-
35400/2BLEX	26-14	1.5	0.2-1.5	-	-	-	550	8	-
35400/2GREX				-	-	-			

Partially enclosed terminals

1 Branching terminal

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
3468BLEX	2/0	70	35-70	3x35	2x50	2x70	750	42	4.2
3468EEX									
3468GREX									
3469BLEX	250 MCM	120	70-120	2x70	2x95	2x120	750	59	30.0
3469EEX									
3469GREX									
30841BLEX	10	6	2.5-6	5x2.5	3x4	2x6	750	23	1.0
30841EEX									
30841GREX									
30842BLEX	8	10	4-10	7x4	4x6	2x10	750	28	1.2
30842EEX									
30842GREX									
30843BLEX	6	16	6-16	6x6	4x10	2x16	750	32	1.6
30843EEX									
30843GREX									
30844BLEX	2	35	16-35	4x16	2x25	2x35	750	40	5.0
30844EEX									
30844GREX									

2 Branching terminals with steatite base

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
2802BLEX	/	150	-	rigid wires 2x150 flexible wires 2x120			1100	65	30.0
2802EEX									
2802EX									
2803BLEX	/	300	-	rigid wires 2x300 flexible wires 2x240			1100	120	50.0
2803EEX									
2803EX									
2804BLEX	/	500	-	rigid wires 2x500 flexible wires 2x400			1100	140	50.0
2804EEX									
2804EX									

3 Screw cap terminals with steatite base

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
2524	/	4x2.5	1-2.5	7x1	5x1.5	3x2.5	750	9-7	4.0
2524L									
3510BLEX	/	2.5	1-2.5	7x1	5x1.5	3x2.5	1100	9-7	4.0
3510PEX									

Partially enclosed terminals

4 Stud terminals / heavy-duty terminals

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm	nominal voltage V	strip insulation mm	torque Nm
30285M8BLEX	/	95/M8	-	-	750	-	6.0
30285M8GREX							
30285M12BLEX	/	240/M12	-	-	750	-	16.0
30285M12GREX							
30286M8BLEX	3/0	M8	-	-	750	-	6.0
30286M8GREX							
30286M10BLEX	300 MCM	M10	-	-	750	-	10.0
30286M10GREX							
30286M12BLEX	500 MCM	M12	-	-	750	-	16.0
30286M12GREX							

Enclosed PE terminals

1 PE terminals with screw connection

Terminals for DIN15 rails

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
30902/4VEX	22-12	4	0.2-4	2x1.5	2x2.5	1x4	-	10	0.6

Terminals for DIN35 rails

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
3436VEX	18-8	6	0.75-6	2x2.5	2x4	1x6	-	12	0.8
3436/4VEX	18-12	4	0.75-4	2x1.5	2x2.5	1x4	-	12	0.8
3436/10VEX	16-6	10	1.5-10	2x4	2x6	1x10	-	12	1.8
3437VEX	10-4	16	6-16	2x6	2x10	1x16	-	18	2.5
3438VEX	6-1/0	35	16-35	2x16	1x25	1x35	-	21	5.0
30544/4VEX	24-12	4	0.2-4	2x1.5	2x2.5	2x4	-	11	0.8
30544/6VEX	24-10	6	0.2-6	2x2.5	1x4	1x6	-	12	0.8
30544/10VEX	24-6	10	0.2-10	2x4	2x6	1x10	-	11	1.5

2 PE terminals with spring clamp connections

Spring clamp terminals with 2 connections

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm	nominal voltage V	strip insulation mm	torque Nm
35310/3VEX	12	2.5	0.2-2.5	-	-	10	-
35310/4VEX	10	4	0.5-4	-	-	12	-
35310/6VEX	8	6	0.5-6	-	-	12	-

Spring clamp terminals with 3 connections

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm	nominal voltage V	strip insulation mm	torque Nm
35330/3VEX	12	2.5	0.2-2.5	-	-	10	-
35330/4VEX	10	4	0.5-4	-	-	12	-
35330/6VEX	8	6	0.5-6	-	-	12	-

Spring clamp terminals with 4 connections

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm	nominal voltage V	strip insulation mm	torque Nm
35340/3VEX	12	2.5	0.2-2.5	-	-	10	-
35340/4VEX	10	4	0.5-4	-	-	12	-

Multi-step spring clamp terminals

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm	nominal voltage V	strip insulation mm	torque Nm
35370/2VEX	26-14	1.5	0.2-1.5	-	30	8	-

Bare PE terminals

1 PE branching terminals

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
30181EX	/	70	35-70	3x35	2x50	2x70	-	42	26.0
30182EX	/	120	70-120	2x70	2x95	2x120	-	58	30.0
30381EX	10	6	2.5-6	5x2.5	3x4	2x6	-	22	1.2
30382EX	8	10	4-10	7x4	4x6	2x10	-	22	2.0
30383EX	6	16	6-16	6x6	4x10	2x16	-	26	3.0
30384EX	2	35	16-35	4x16	2x25	2x35	-	40	3.5

2 PE screw cap terminals

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
2849/5EX	/	2.5	0-2.5	2x2.5			-	9-7	4.0
2849/7EX	/	2.5	0-2.5	2x2.5			-	9-7	4.0
2850EX	/	6	0-6	2x6			-	11-9	6.0
2860	/	4	0-4	2x4			-	9-7	2.5
2861	/	6	0.5-6	2x6			-	10-8	3.5
2863	/	16	2.5-16	2x16			-	13-11	4.5
2864	/	35	6-35	2x35			-	17-15	6.0

3 Bare PE terminals with screw connections

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
3435EX	18-12	4	0.75-4	2x1.5	2x2.5	1x4	-	6	0.8
3436EX	18-8	6	0.75-6	2x2.5	2x4	1x6	-	7	0.8
3436/10EX	16-6	10	1.5-10	2x4	2x6	1x10	-	8	1.8
3437EX	10-4	16	6-16	2x6	2x10	1x16	-	12	2.5
3438EX	6-1/0	35	16-35	2x16	1x25	1x35	-	14	5.0

4 PE heavy-duty stud terminals

Art. No.	AWG	nominal cross-section mm ²	cross-section range mm ²	wire connection diameter mm			nominal voltage V	strip insulation mm	torque Nm
30287M8EX	/	M8	-	-	-	-	-	-	6.0
30287M10EX	/	M10	-	-	-	-	-	-	10.0

Empty cast iron junction boxes

Cast iron junction boxes

Art. No.		IP	external dimensions mm	internal dimensions mm	PE terminal internal
5000EXE		65	88 x 88 x 57	70 x 70 x 38	2860, 4mm ²
5000EXEZ					
6010EXE		65	116 x 102 x 72	95 x 80 x 51	2860, 4mm ²
6010EXEZ					
6100EXE		65	141 x 120 x 84	120 x 100 x 61	2860, 4mm ²
6100EXEZ					
6200EXE		65	182 x 152 x 88	160 x 130 x 65	2861, 6mm ²
6200EXEZ					
6300EXE		65	210 x 210 x 101	182 x 182 x 75	2864, 35mm ²
6300EXEZ					

Equipped cast iron junction boxes

Cast iron junction boxes with terminal installation kits

Art. No.	equipped with installation kit	voltage V	rated current max. A	terminal cross-section mm ²	max. cable cross-section mm ²	combination of single terminals	single terminals
5000EXE	2524 2524L	500	20	2.5	2.5	3P+PE 3L+N	3510PEX, 2849/5EX 3510PEX
5000EXEZ							
6010EXE	80412	750	30	6	6	3L+N+PE	30841EX
6010EXEZ							
6100EXE	80424 80420	750	50	10	10	3L+N+PE	30842EX
6100EXEZ			55	16			30843EX
6200EXE	80425 80430	750	65	16	16	3L+N+PE	30843EX
6200EXEZ			70	35			30844EX
6300EXE	80431 80432	750	120	35	35	3L+N+PE	30844EX
6300EXEZ			125	70			3468EX

Additional information

EXE gray enameled box version
EXEZ galvanized version

