

Enclosure: Junction Box with Terminals, JBE1 Series



Increased Safety Zone 1 & 2 – 21 & 22

Application

The JBE1 junction boxes are designed for tap, splice or connecting of conductors for control, instrument or power circuit. These boxes are designed for explosive atmospheres zone 1, 2 and zone 21, 22.

Specification

Body, cover : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (Grey)
Sealing (O-ring) : Silicone -40 °C to +175 °C
Lid screws : Stainless steel

Electrical Rating

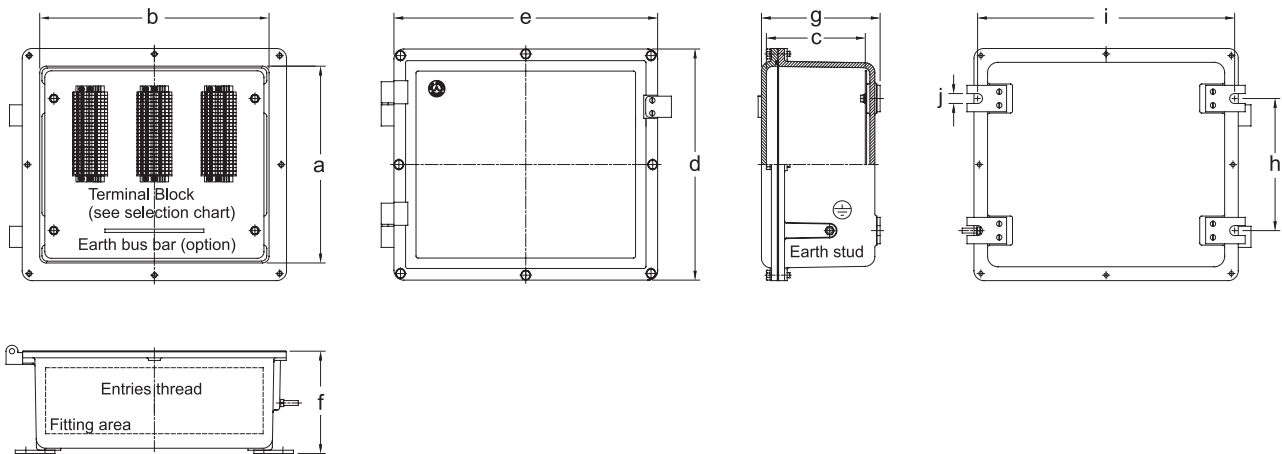
Rated voltage : up to 1000V.
Rated current : up to 420A.
(depending on type of terminal used)

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Conforming to ATEX	II 2G	II 2D
Symbol of Protection ATEX	Ex e II or Ex e ia/ib IIC	Ex tD A21
Symbol of Protection IEC		
ATEX Certificate	PTB 04 ATEX 1089	
T Rating	T6 (Ta 40 °C) T5 (Ta 55 °C)	NA
Surface Temp.	NA	T85°C (Ta 40 °C) T100°C (Ta 55 °C)
Standard	ATEX Directive 2014/34/EU, std. EN 60079-0:2006, EN 60079-7:2007, EN 60079-11:2007, EN 61241-0:2006, EN 61241-1:2004	
Ambient Temperature	-20 °C to +55 °C	
Index of Protection	IP66	
Entries	NPT or Metric threads	
Mounting	Wall type	



Catalogue Number and Dimension



Cat. No.	Maximum entries thread size					Dimension in mm.											Empty Weight (kgs.)
	NPT (Metric)					Internal			External			Mounting					
	Ø1/2" (M20x1.5)	Ø3/4" (M25x1.5)	Ø1" (M32x1.5)	Ø1-1/4" (M40x1.5)	Ø1-1/2" (M50x1.5)	a	b	c	d	e	f	g	h	i	j		
JBE1 1923	4	4	3	2	2	140	180	95	190	230	99	124	110	216	10	5.05	
JBE1 2530	13	11	8	5	3	198	248	150	250	300	155	180	110	280	12	8.55	
JBE1 3540	20	17	12	8	4	298	348	150	350	400	155	180	200	390	12	12.35	
JBE1 4550	26	21	15	10	6	398	448	170	450	500	179	204	276	490	12	19.55	
JBE1 4866	46	38	28	18	12	423	603	220	480	660	230	255	500	472	12	44.55	
JBE1 5882	58	48	36	24	15	523	763	220	580	820	230	255	372	810	12	59.65	

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Terminal Selection Chart

TB Model	Rated Current	Rated Voltage	Wire Size	Maximum Numbers of Terminals (Physical Content) Δ					
				JBE1 1923	JBE1 2530	JBE1 3540	JBE1 4550	JBE1 4866	JBE1 5882
Brand: Entelec									
ZS4	32A.	630V.	0.5-4.0mm. ²	16	36	72	111	153	279
ZS6	41A.	630V.	1.5-6.0mm. ²	12	20	54	84	114	207
ZS10	57A.	630V.	1.5-10.0mm. ²	12 <input type="checkbox"/>	14	42	60	90	165
ZS16	76A.	630V.	1.5-16.0mm. ²	10 <input type="checkbox"/>	12 <input type="checkbox"/>	21 <input type="checkbox"/>	48	40	53
ZS35	125A.	630V.	4.0-35.0mm. ²	5 <input type="checkbox"/>	9 <input type="checkbox"/>	16 <input type="checkbox"/>	22 <input type="checkbox"/>	33 <input type="checkbox"/>	42 <input type="checkbox"/>
ZS70	192A.	630V.	16.0-70.0mm. ²	-	-	11 <input type="checkbox"/>	16 <input type="checkbox"/>	24 <input type="checkbox"/>	30 <input type="checkbox"/>
ZS95	232A.	630V.	35.0-95.0mm. ²	-	-	10 <input type="checkbox"/>	13 <input type="checkbox"/>	20 <input type="checkbox"/>	25 <input type="checkbox"/>
D120/42.FF.Ex	269A.	1000V.	6.0-120.0mm. ²	-	-	-	8 <input type="checkbox"/>	12 <input type="checkbox"/>	16 <input type="checkbox"/>
D185/55.FF.Ex	353A.	1000V.	6.0-185.0mm. ²	-	-	-	-	6 <input type="checkbox"/>	12 <input type="checkbox"/>
D300/55.FF.Ex	520A.	1000V.	6.0-240.0mm. ²	-	-	-	-	6 <input type="checkbox"/>	12 <input type="checkbox"/>
Brand: Elmex									
KUT 2.5	24A.	750V.	0.5-2.5mm. ²	16	42	74	102	153	285
KUT 4	32A.	750/550V.	0.5-4.0mm. ²	14	32	64	99	138	252
KUT 6	41A.	750/550V.	1.5-6.0mm. ²	12	20	54	87	114	107
KUT 10	57A.	550V.	1.5-10.0mm. ²	12 <input type="checkbox"/>	14	42	62	93	165
KUT 16	76A.	750V.	6.0-16.0mm. ²	10 <input type="checkbox"/>	12 <input type="checkbox"/>	21 <input type="checkbox"/>	50	40	53
KUT 25	101A.	750V.	6.0-25.0mm. ²	6 <input type="checkbox"/>	12 <input type="checkbox"/>	21 <input type="checkbox"/>	50	40	53
KUT 35	125A.	750V.	10.0-35.0mm. ²	-	8 <input type="checkbox"/>	15 <input type="checkbox"/>	21 <input type="checkbox"/>	29	39 <input type="checkbox"/>
KUT 50	150A.	800V.	16.0-50.0mm. ²	-	-	12 <input type="checkbox"/>	17 <input type="checkbox"/>	26 <input type="checkbox"/>	32 <input type="checkbox"/>
KUT 95	232A.	800V.	25.0-95.0mm. ²	-	-	10 <input type="checkbox"/>	14 <input type="checkbox"/>	21 <input type="checkbox"/>	26 <input type="checkbox"/>
Brand: Weidmuller									
WDU2.5N	21A.	500V.	0.5-2.5mm. ²	19	48	86	135	180	336
WDU4N	32A.	500V.	0.5-4.0mm. ²	16	36	70	108	150	276
WDU6	41A.	800V.	0.5-6.0mm. ²	12	20	32	76	117	210
WDU10	57A.	1000V.	1.5-10.0mm. ²	12 <input type="checkbox"/>	14	26 <input type="checkbox"/>	62	84	160
WDU16	76A.	1000V.	1.5-16.0mm. ²	6 <input type="checkbox"/>	12 <input type="checkbox"/>	21 <input type="checkbox"/>	50	40	54
WDU35	125A.	1000V.	2.5-35.0mm. ²	5 <input type="checkbox"/>	8 <input type="checkbox"/>	16 <input type="checkbox"/>	22 <input type="checkbox"/>	33 <input type="checkbox"/>	42 <input type="checkbox"/>
WDU50N	150A.	1000V.	10.0-50.0mm. ²	-	-	14 <input type="checkbox"/>	19 <input type="checkbox"/>	28 <input type="checkbox"/>	36 <input type="checkbox"/>
WDU70N	192A.	1000V.	10.0-70.0mm. ²	-	-	12 <input type="checkbox"/>	17 <input type="checkbox"/>	26 <input type="checkbox"/>	32 <input type="checkbox"/>
WDU95N/120N	269A.	1000V.	16.0-95.0mm. ²	-	-	9 <input type="checkbox"/>	13 <input type="checkbox"/>	19 <input type="checkbox"/>	24 <input type="checkbox"/>
WDU95N/120N	269A.	1000V.	16.0-120.0mm. ²	-	-	8 <input type="checkbox"/>	13 <input type="checkbox"/>	19 <input type="checkbox"/>	24 <input type="checkbox"/>
WDU120/150	309A.	1000V.	35.0-150.0mm. ²	-	-	-	-	16 <input type="checkbox"/>	21 <input type="checkbox"/>
WDU240	415A.	1000V.	70.0-240.0mm. ²	-	-	-	-	9 <input type="checkbox"/>	18 <input type="checkbox"/>

Δ The maximum numbers of terminals in this table are specified by concerning the physical content of each terminal size and the wiring space within the boxes. Please see the operating instruction for maximum numbers of terminals permitted for load current of each terminal size with corresponding to the temperature class T6 or T5.

The terminals will be arranged near the top wall and provided with jumper bar for each 2-poles.



M8 earth stud bolt with terminal lug for external ground



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Maximum number of terminals permitted for load current

Current (A)	Cross-section in mm ² JBE1 1923							
	1.5	2.5	4	6	10	16	25	35
10	59							
16	20	39	152					
20	8	23	44					
25		11	25	48				
35			7	19	47			
50				2	15	39		
63					5	18	64	
80						7	20	71
100							8	19
125								7

In this area any number of terminals can be added to maximum physical content.

Fitting in this area is not allowed.

Current (A)	Cross-section in mm ² JBE1 2530							
	1.5	2.5	4	6	10	16	25	35
10	83							
16	28	55	216					
20	12	32	62					
25		15	35	68				
35			10	26	66			
50				4	21	55		
63					7	25	90	
80						9	28	101
100							12	26
125								10

In this area any number of terminals can be added to maximum physical content.

Fitting in this area is not allowed.



Current (A)	Cross-section in mm ² JBE1 3540									
	1.5	2.5	4	6	10	16	25	35	50	70
10	98									
16	33	65	253							
20	14	38	73							
25		18	41	80						
35			12	31	78					
50				4	25	64				
63					8	30	108			
80						11	33	119		
100							14	31		
125								12	32	
160									11	28
200										10

In this area any number of terminals can be added to maximum physical content.

Fitting in this area is not allowed.



Current (A)	Cross-section in mm ² JBE1 4550										
	1.5	2.5	4	6	10	16	25	35	50	70	95
10	118										
16	40	78	305								
20	17	48	88								
25		21	50	96							
35			14	38	94						
50				5	30	78					
63					10	36	128				
80						14	40	143			
100							17	38			
125								15	38		
160									13	34	
200										12	29
225											4
250											9

In this area any number of terminals can be added to maximum physical content.

Fitting in this area is not allowed.



Current (A)	Cross-section in mm ² JBE1 4866														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
10	143														
16	49	95	370												
20	20	55	107												
25		26	61	117											
35			18	46	114										
50				6	37	94									
63					12	44	155								
80						17	48	174							
100							21	46							
125								2	18	46					
160									16	41					
200										14	35	109			
225											5	20	43		
250												11	26	54	
315													5	15	32
400															7
500															22
															3

In this area any number of terminals can be added to maximum physical content.

Fitting in this area is not allowed.



Current (A)	Cross-section in mm ² JBE1 5882														
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
10	160														
16	55	106	414												
20	23	62	120												
25		29	68	131											
35			20	51	127										
50				7	41	105									
63					14	49	174								
80						19	54	194							
100							23	51							
125								2	20	52					
160									18	46					
200										16	39	122			
225											6	23	48		
250												12	29	61	
315													6	17	36
400															8
500															25
															3

In this area any number of terminals can be added to maximum physical content.

Fitting in this area is not allowed.



Attention: Adding the terminals may lead to higher surface temperature than the previous one. Please also observe the table indicating for load current value which is provided in the technical data of the terminal box.

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ORDERING INFORMATION

<input type="checkbox"/> JBE1 1923	Project: _____
<input type="checkbox"/> JBE1 2530	Customer: _____
<input type="checkbox"/> JBE1 3540	Owner: _____
<input type="checkbox"/> JBE1 4550	Contact Name: _____
<input type="checkbox"/> JBE1 4866	
<input type="checkbox"/> JBE1 5882	
Q 'ty _____ Sets	Tel: _____ Date: _____

Terminal Block, Ex e (Pin type)	Brand:	<input type="checkbox"/> Entrelec	<input type="checkbox"/> Elmex	<input type="checkbox"/> Weidmuller
<input type="radio"/> Model: _____	Q 'ty _____	Poles _____	Marker No. _____	
_____	Q 'ty _____	Poles _____	Marker No. _____	
_____	Q 'ty _____	Poles _____	Marker No. _____	
_____	Q 'ty _____	Poles _____	Marker No. _____	
<input type="radio"/> Jumper Bar; _____ Poles	Q 'ty _____	Ea. _____		
<input type="radio"/> Earth; <input type="checkbox"/> Internal Earth Bar	External Earth Bar for standard (M8 Earth Stud)			

Layout

