

# Enclosure: Junction Box with Terminals (Stainless Steel), JBE2 Series



## Increased Safety Zone 1 & 2 – 21 & 22

### Application

The JBE2 junction boxes are designed for instrument, control and distribution panel. They are suitable for Ex e increased safety type or Ex i intrinsic safe terminal blocks for hazardous areas, zone 1, 2 and zone 21, 22.

### Specification

Housing material : Stainless steel SUS 304L or SUS 316L  
1.2, 1.5 or 2.0 mm. thickness  
Sealing gasket : Neoprene (CR) -25 °C to +100 °C  
Lid screws : Stainless steel

### Electrical Rating

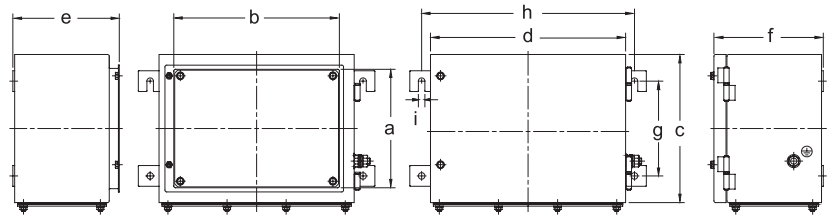
Rated voltage : up to 750V. (non-intrinsic safe circuit)  
up to 375V. (intrinsic safe circuit)  
Rated current : up to 125A.  
(depending on type of terminal used)

### Technical Data

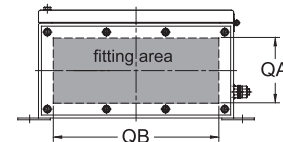
Hazardous Area	Gas	Dust
Zones	<b>1 &amp; 2</b>	<b>21 &amp; 22</b>
Conforming to ATEX	⊕ II 2G	⊕ II 2D
Symbol of Protection ATEX	<b>Ex e II or Ex e ib IIC</b>	<b>Ex tD A21</b>
Symbol of Protection IEC		
ATEX Certificate	PTB 07 ATEX 1073	
T Rating	T6 (Ta 40 °C) T5 (Ta 55 °C)	NA
Surface Temp.	NA	T80°C (Ta 40 °C) T95°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



Entries	Entries Plate Drill Hole
M20x1.5	Ø21.5mm.
M25x1.5	Ø27.0mm.
M32x1.5	Ø33.5mm.
M40x1.5	Ø42.5mm.
M50x1.5	Ø50.5mm.



Cat. No.	Dimension in mm.									THK.	Entries Plate		Maximum entries thread size (Metric)					Empty Weight (kgs.)
	Internal			External			Mounting				QA	QB	M20x1.5	M25x1.5	M32x1.5	M40x1.5	M50x1.5	
	a	b	c	d	e	f	g	h	i									
JBE2□-2424	190	190	240	240	180	185	150	270	10	1.2	150	230	7	7	5	3	2	5.15
JBE2□-2533	200	280	250	330	180	185	160	360	10	1.2	150	320	9	9	8	4	3	6.25
JBE2□-2742	220	370	270	420	235	240	180	450	10	1.5	205	410	20	20	17	8	7	6.55
JBE2□-3043	250	385	300	435	235	240	210	465	10	1.5	205	425	20	20	17	8	7	8.58
JBE2□-3243	270	385	320	435	270	275	230	465	10	1.5	240	425	26	26	22	10	7	9.65
JBE2□-3447	290	420	340	470	270	275	230	640	10	1.5	240	460	38	38	32	16	10	11.58
JBE2□-3261	270	560	320	610	270	275	250	500	10	2.0	240	600	30	30	24	12	8	16.55
JBE2□-3465	290	600	340	650	270	275	250	680	10	2.0	240	640	42	42	36	12	11	17.65
JBE2□-3670	310	650	360	700	270	275	270	730	10	2.0	240	690	46	46	38	14	12	20.15
JBE2□-3675	310	700	360	750	270	275	270	780	10	2.0	240	740	50	50	42	16	13	24.15
JBE2□-3880	330	750	380	800	270	275	290	830	10	2.0	240	790	54	52	44	16	14	32.25
JBE2□-4085	350	800	400	850	270	275	310	880	10	2.0	240	840	56	56	48	18	15	35.65

□ add material specification with **4-** for stainless steel 304L

**6-** for stainless steel 316L

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A QUALITY PRODUCT

Increased Safety  
Zone 1 & 2 – 21 & 22

## Terminal Selection Chart

TB Model	Rated Current	Rated Voltage	Wire Size	Maximum Numbers of Terminals (Respective to the Temperature Class)					
				JBE2□-2424	JBE2□-2533	JBE2□-2742	JBE2□-3043	JBE2□-3243	JBE2□-3447

### Brand: Entelec

ZS4	32A.	630V.	0.5-4.0mm. <sup>2</sup>	12	26	40	48	56	64
ZS6	41A.	630V.	1.5-6.0mm. <sup>2</sup>	8	18	28	36	40	48
ZS10	57A.	630V.	1.5-10.0mm. <sup>2</sup>	6	14	24	28	32	36
ZS16	76A.	630V.	1.5-16.0mm. <sup>2</sup>	4	12	18	18	18	24
ZS35	125A.	630V.	4.0-35.0mm. <sup>2</sup>	–	4	4	12	12	14

### Brand: Weidmuller

WDU2.5N	21A.	500V.	0.5-2.5mm. <sup>2</sup>	14	30	48	60	68	76
WDU4N	32A.	500V.	0.5-4.0mm. <sup>2</sup>	12	26	40	48	56	64
WDU6	41A.	800V.	0.5-6.0mm. <sup>2</sup>	8	18	28	36	40	48
WDU10	57A.	1000V.	1.5-10.0mm. <sup>2</sup>	6	14	24	28	32	36
WDU16	76A.	1000V.	1.5-16.0mm. <sup>2</sup>	4	12	18	18	18	24
WDU35	125A.	1000V.	2.5-35.0mm. <sup>2</sup>	–	4	4	12	12	14

TB Model	Rated Current	Rated Voltage	Wire Size	Maximum Numbers of Terminals (Respective to the Temperature Class)					
				JBE2□-3261	JBE2□-3465	JBE2□-3670	JBE2□-3675	JBE2□-3880	JBE2□-4085

### Brand: Entelec

ZS4	32A.	630V.	0.5-4.0mm. <sup>2</sup>	84	90	102	112	132	140
ZS6	41A.	630V.	1.5-6.0mm. <sup>2</sup>	60	66	72	84	100	104
ZS10	57A.	630V.	1.5-10.0mm. <sup>2</sup>	42	48	60	68	76	84
ZS16	76A.	630V.	1.5-16.0mm. <sup>2</sup>	20	24	28	42	76	84
ZS35	125A.	630V.	4.0-35.0mm. <sup>2</sup>	16	20	20	20	30	36

### Brand: Weidmuller

WDU2.5N	21A.	500V.	0.5-2.5mm. <sup>2</sup>	96	108	126	136	156	168
WDU4N	32A.	500V.	0.5-4.0mm. <sup>2</sup>	84	90	102	112	132	140
WDU6	41A.	800V.	0.5-6.0mm. <sup>2</sup>	60	66	72	84	100	104
WDU10	57A.	1000V.	1.5-10.0mm. <sup>2</sup>	42	48	60	68	76	84
WDU16	76A.	1000V.	1.5-16.0mm. <sup>2</sup>	20	24	28	42	76	84
WDU35	125A.	1000V.	2.5-35.0mm. <sup>2</sup>	16	20	20	20	30	36



# Enclosure: Junction Box with Terminals (Stainless Steel), JBE2 Series



## Increased Safety Zone 1 & 2 – 21 & 22

### Maximum number of terminals permitted for load current

Current (A)	Cross-section in mm. <sup>2</sup>						JBE2 □-2424	
	1.5	2.5	4	6	10	16		
10	87							
16	30	58	224	In this area any number of terminals can be added to maximum physical content.				
20	12	33	65					
25		16	37					
35			10	28	69			
50				4	22	57		
63					7	26		
80						10		
	Fitting in this area is not allowed.							

Current (A)	Cross-section in mm. <sup>2</sup>								JBE2 □-2533	
	1.5	2.5	4	6	10	16	25	35		
10	92									
16	31	61	238	In this area any number of terminals can be added to maximum physical content.						
20	13	36	69							
25		17	39							
35			11	29	73					
50				4	24	60				
63					8	28	100			
80						10	31	112		
100							13	29		
125								12		
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>							JBE2 □-2742		
	1.5	2.5	4	6	10	16	25	35		
10	112									
16	38	75	291	In this area any number of terminals can be added to maximum physical content.						
20	16	43	84							
25		20	48							
35			14	36	89					
50				5	29	74				
63					10	34	122			
80						13	38	136		
100							16	36		
125								14		
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>								JBE2 □-3043	
	1.5	2.5	4	6	10	16	25	35		
10	117									
16	40	78	302	In this area any number of terminals can be added to maximum physical content.						
20	16	45	87							
25		21	49							
35			14	37	93					
50				5	30	77				
63					10	36	127			
80						13	39	142		
100							17	37		
125								15		
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>							JBE2 □-3243		
	1.5	2.5	4	6	10	16	25	35		
10	129									
16	44	86	334	In this area any number of terminals can be added to maximum physical content.						
20	18	50	97							
25		24	55							
35			16	41	103					
50				6	33	85				
63					11	39	140			
80						15	44	157		
100							19	41		
125								2	16	
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>								JBE2 □-3447	
	1.5	2.5	4	6	10	16	25	35		
10	132									
16	45	88	341	In this area any number of terminals can be added to maximum physical content.						
20	18	51	99							
25		24	56							
35			16	42	105					
50				6	34	87				
63					11	40	143			
80						15	45	160		
100							19	42		
125								2	17	
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>							JBE2 □-3261		
	1.5	2.5	4	6	10	16	25	35		
10	133									
16	45	88	343	In this area any number of terminals can be added to maximum physical content.						
20	19	51	99							
25		24	56							
35			16	42	105					
50				6	34	87				
63					11	40	144			
80						15	45	161		
100							19	42		
125								2	17	
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>								JBE2 □-3465	
	1.5	2.5	4	6	10	16	25	35		
10	135									
16	46	90	350	In this area any number of terminals can be added to maximum physical content.						
20	19	52	101							
25		25	57							
35			17	43	108					
50				6	35	89				
63					12	41	147			
80						16	46	164		
100							19	43		
125								2	17	
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>							JBE2 □-3670		
	1.5	2.5	4	6	10	16	25	35		
10	139									
16	48	92	359	In this area any number of terminals can be added to maximum physical content.						
20	20	54	104							
25		25	59							
35			17	44	110					
50				6	36	91				
63					12	42	151			
80						16	47	169		
100							20	44		
125								2	18	
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>								JBE2 □-3675	
	1.5	2.5	4	6	10	16	25	35		
10	139									
16	48	93	360	In this area any number of terminals can be added to maximum physical content.						
20	20	54	104							
25		25	59							
35			17	44	111					
50				6	36	91				
63					12	42	151			
80						16	47	169		
100							20	44		
125								2	18	
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>							JBE2 □-3880		
	1.5	2.5	4	6	10	16	25	35		
10	143									
16	49	95	369	In this area any number of terminals can be added to maximum physical content.						
20	20	55	107							
25		26	61							
35			18	46	113					
50				6	37	94				
63					12	44	155			
80						16	48	173		
100							21	46		
125								2	18	
	Fitting in this area is not allowed.									

Current (A)	Cross-section in mm. <sup>2</sup>								JBE2 □-4085	
	1.5	2.5	4	6	10	16	25	35		
10	147									
16	50	97	379	In this area any number of terminals can be added to maximum physical content.						
20	21	57	110							
25		27	62							
35			18	47	116					
50				7	38	96				
63					13	45	159			
80						17	50	178		
100							21	47		
125								2	19	
	Fitting in this area is not allowed.									

