

JBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

Increased Safety. For Field Drilling and Customization

Zones 1 & 2 – 21 & 22
Gas (G) and Dust (D)

Applications

- Designed for Zones 1 or 2 areas, where flammable gases or vapors are present either continuously, often or accidentally such as:
 - Petroleum
 - Chemical
 - Refineries
 - Other industrial process facilities
- Ideal for indoor/outdoor use with wet or corrosive atmospheres.
- Designed for use in Zones 21 or 22 areas where flammables dusts (conductive and non conductive) are present either continuously, often or accidentally such as:
 - Food processing
 - Dairy
 - Brewing
 - Other industrial process facilities
- Designed for Zone 0 and Zone 20 Intrinsically Safe applications when used with rated terminals.

Features

- Available in a wide range of sizes:
 - For armored, unarmored or armored lead sheathed cable
 - For use with Mantle Clamping (Pillar Terminals) for use as instrumentation, electrical or power terminals
 - For use with a variety of connection and earth terminals
- Optional external hinged enclosures:
 - Reversible door opening 120°.
 - Door with double bar lock.
 - Key locking facility.
- Refer to the technical guide to determine permitted and sizes of terminals and cables entries for self arrangement.

Standard materials

- Enclosures: Static resistant carbon filled fiberglass reinforced polyester (FRP)
- Hardware: stainless steel
- Gasket for sizes 85 x 85, 120 x 120: silicone
- Gasket for other sizes: EPDM (ethylene propylene diene monomer rubber)

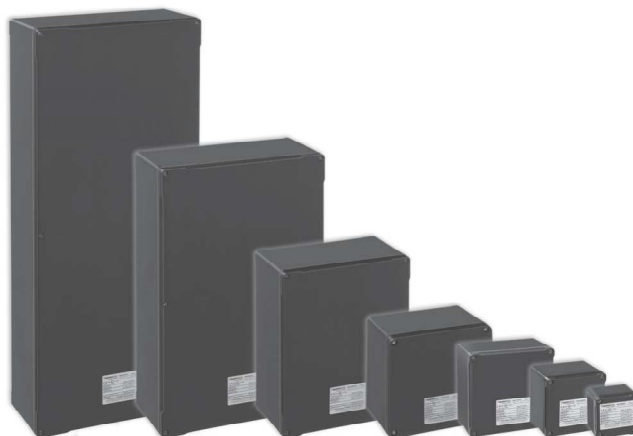
Options

- External hinges are available on the following sizes:
 - 500 x 320 x 150 mm
 - 500 x 320 x 230 mm
 - 750 x 320 x 150 mm
 - 750 x 320 x 230 mm
- Silicone gasket available for sizes 170 x 170 and 200 x 215
- Removable glands plates
- Nameplates
- Mounting pan
- Terminal rail
- Inside pocket for document
- Consult factory for custom drilling and assembly requirements.

Certifications and Compliances

◆ ATEX/IECEx Certification

- Type : JBEP
 - Gas, Zones 1 and 2:
 - Conforming to ATEX 94/9/EC: Ⓔ II G
 - Conforming to IECEx : EPL Gb
 - Type of Protection: Ex eb IIC, Ex eb ia IIC, Ex eb ib IIC, Ex ib IIC



- Temperature class:
 - T6 for $T_a \leq +40^\circ\text{C}$, T5 for $T_a \leq +60^\circ\text{C}$
 - T3 for $T_a \leq +90^\circ\text{C}$ for sizes 85 x 85, 120 x 120
- Dust, Zones 21 and 22:
 - Conforming to ATEX: Ⓔ IID
 - Conforming to IECEx: EPL Db
 - Type of Protection: Ex tb IIC
 - Surface Temperature :
 - T60 °C for $T_a \leq +40^\circ\text{C}$, T90 °C for $T_a \leq +60^\circ\text{C}$
 - T110 °C for $T_a \leq +90^\circ\text{C}$ for sizes 85 x 85, 120 x 120
- Gas, Zone 0:
 - Conforming to ATEX 94/9/EC: Ⓔ II 1G
 - Conforming to IECEx : EPL Ga
 - Type of Protection: Ex ia IIC
 - Temperature class:
 - T6 for $T_a \leq +40^\circ\text{C}$, T5 for $T_a \leq +60^\circ\text{C}$
 - T3 for $T_a \leq +90^\circ\text{C}$ for sizes 85 x 85, 120 x 120
- Dust, Zone 20:
 - Conforming to ATEX: Ⓔ II 1D
 - Conforming to IECEx: EPL Da
 - Type of Protection: Ex ia IIC
 - Surface Temperature :
 - T60 °C for $T_a \leq +40^\circ\text{C}$, T90 °C for $T_a \leq +60^\circ\text{C}$
 - T110 °C for $T_a \leq +90^\circ\text{C}$ for sizes 85 x 85, 120 x 120
- Ambient Temperatures :
 - 55 °C $\leq T_a \leq +60^\circ\text{C}$ (EPDM gasket)
 - 55 °C $\leq T_a \leq +90^\circ\text{C}$ (silicone gasket)
- ATEX Certificate : LCIE 12 ATEX 3037X
- EC Declaration of Conformity : 50291
- IECEx Certificate : IECEx LCIE 13.0003X
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance: IK10

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◆EURASEC Certification

— EURASEC N° TC RU C-FR.Г505.B.00911

◆Others Certification

— INMETRO Certificate: BVC 13.3238 - X ①

Related Products

- Cable glands for use with armored and unarmored cable are available, see *Fittings: Cable Glands*.

Catalog Numbering Guide - JBEP Undrilled and Predrilled, Empty Junction Boxes

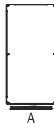
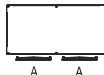
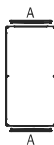
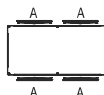
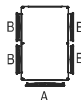
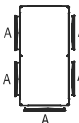
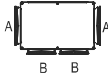
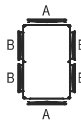
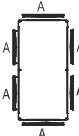
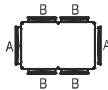
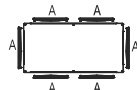
JBE	P	08	08	06	0	G
Series: JBE - ATEX/IECEX Certified Junction Box	Material: P - Polyester	Dimensions Height: 08 - 85 mm 12 - 120 mm 17 - 170 mm 20 - 200 mm 21 - 215 mm 23 - 230 mm 25 - 250 mm 32 - 320 mm 50 - 500 mm 75 - 750 mm	Dimensions Width: 08 - 85 mm 12 - 120 mm 17 - 170 mm 20 - 200 mm 21 - 215 mm 25 - 250 mm 32 - 320 mm 50 - 500 mm 75 - 750 mm	Dimensions Depth: 06 - 61 mm 07 - 66 mm 09 - 91 mm 09S - 91 mm 11 - 116 mm 15 - 150 mm 23 - 230 mm	Gland Plates (for location see chart below): 0 - No Gland Plate 1 - Bottom, Plastic 2 - Top and Bottom, Plastic 3 - Bottom and Sides, Plastic 4 - All Sides Plastic, 5 - Bottom, Brass 6 - Top and Bottom, Brass 7 - Bottom and Sides, Brass 8 - All Sides, Brass	Options: (Options must be listed alphabetically) A - Earth continuity Brass Plate G - Cable Glands M - Mounting Pan H - Hinges for sizes : 500 or 750 x 320 x 150 or 230 HR - Horizontal DIN-Rail VR - Vertical DIN-Rail # - Customized at Factory

① Inmetro certification available on special request only. Contact your local sales for more information

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Gland Plate Location Chart ①					
Height x Width x Depth Dimensions in Millimeters					
250 x 320 x 150	500 x 320 x 150 500 x 320 x 230	750 x 320 x 150 750 x 320 x 230	320 x 500 x 150 320 x 500 x 230	320 x 750 x 150 320 x 750 x 230	
Bottom					
					
Top and Bottom					
					
Bottom and Sides					
N/A					
All Sides					
N/A					

Spare Removable Gland Plate — Supplied with Gasket and Hardware						
	Description	Size	Weight – kg	Volume – dm ³	Size – mm	Catalog Number
	Plastic	A	0.5	0.8	127 X 268	JBEPGPPA
	Plastic	B	0.51	0.6	127 X 203	JBEPGPPB
	Brass	A	1.5	0.8	127 X 268	JBEPGPBA
	Brass	B	1.30	0.6	127 X 203	JBEPGPBB

① A = 127 x 268
B = 127 x 203

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Ex eb IIC Polyester Enclosures

For use with Ex certified terminals only (not supplied). DIN-Rail not supplied.
For DIN Rail dimensions, see DIN Rail Sizes chart on following page.

	Dimension – H x W x D – mm	Enclosure Weight – kg	Enclosure Volume – dm³	Shipping Carton Volume – dm³	Catalog Number ^①
	85 x 85 x 60	0.38	0.43	1.35	JBEP0808060 ^②
	120 x 120 x 91	0.75	1.31	1.98	JBEP121209S0
	170 x 170 x 91	1.32	2.63	4.04	JBEP1717090
	200 x 215 x 95	2.06	4.09	9.54	JBEP2021100
	200 x 215 x 150	2.67	6.45	9.54	JBEP2021150
	250 x 320 x 150	3.90	12.00	19.35	JBEP2532150
	500 x 320 x 150	6.39	24.00	71.63	JBEP5032150
	750 x 320 x 150	8.69	36.00	46.41	JBEP7532150
	320 x 250 x 150	3.90	12.00	19.35	JBEP3225150
	320 x 500 x 150	6.39	24.00	71.63	JBEP3250150
	320 x 750 x 150	8.69	36.00	46.41	JBEP3275150
	500 x 320 x 230	8.02	36.80	71.63	JBEP5032230
	750 x 320 x 230	11.54	55.20	82.13	JBEP7532230
	320 x 500 x 230	8.02	36.80	71.63	JBEP3250230
	320 x 750 x 230	11.54	55.20	82.13	JBEP3275230

① To order enclosure fitted with removable gland plate as standard, replace last digit of the catalog number **0** with 1 to 8; example: JBEP327523**8**.
 ② Due to the small size of the JBEP0808060, the optional Laminated Plastic Nameplate for Engraving is not recommended for this enclosure.
 The 85 x 85 x 60 mm dimensions do not allow for mounting space beyond the factory adhered product label.

Shaded catalog numbers are normally stocked items. All other items are made to order.

JBEP Series Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

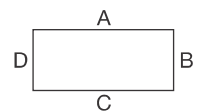
Increased Safety. For Field Drilling and Customization

Zones 1 & 2 – 21 & 22
Gas (G) and Dust (D)



Ex eb IIC Factory Drilled JBEP Polyester Junction Boxes Equipped with One horizontal Symmetrical Zinc Plated Rail, Yellow Laminated Plastic Label with Black Lettering, Internal earth terminal, and Earth Continuity Device.

*For use with Ex terminals only (not supplied).
Cable glands and plugs ordered separately.*



Enclosure Type	Rail Length Capacity (mm)	Entry Layout	Clearance Holes Per Side				Weight kg	Volume dm ³	Dimensions H x W x D – mm	Catalog Number
			A	B	C	D				
JBEP080806	41		—	1 x M20	1 x M20	1 x M20	0.42	0.44	85 x 85 x 60	JBEP080806003 ①
JBEP080806	41		1 x M20	1 x M20	1 x M20	1 x M20	0.42	0.44	85 x 85 x 60	JBEP080806004 ①
JBEP121209S	73		—	1 x M20	1 x M20	1 x M20	0.85	1.31	120 x 120 x 91	JBEP121209003
JBEP121209S	73		1 x M20	1 x M20	1 x M20	1 x M20	0.85	1.31	120 x 120 x 91	JBEP121209004
JBEP171709	122		1 x M20	1 x M20	1 x M20	1 x M20	1.54	2.65	170 x 170 x 91	JBEP171709004
JBEP171709	122		—	2 x M20	2 x M20	2 x M20	1.54	2.65	170 x 170 x 91	JBEP171709006
JBEP171709	122		1 x M25	1 x M25	1 x M25	1 x M25	1.54	2.65	170 x 170 x 91	JBEP171709014
JBEP171709	122		—	2 x M25	2 x M25	2 x M25	1.54	2.65	170 x 170 x 91	JBEP171709016

① Due to the small size of the JBEP0808060, the optional Laminated Plastic Nameplate for Engraving is not recommended for this enclosure.
The 85 x 85 x 60 mm dimensions do not allow for mounting space beyond the factory adhered product label.

JBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes Horizontal Din Rail

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Rail size for JBEP080806 15 x 5.5 mm. All other rail sizes are 35 x 15 mm or 35 x 7.5 mm.
Terminal block WDU used for all sizes.



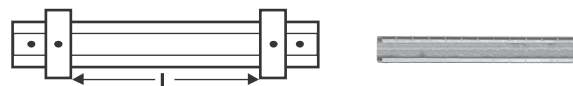
Enclosure Catalog Number		Horizontal Terminal Rail			Number of Terminals of the same pitch per rail — Nominal cross section (mm²)/pitch (mm)									Earthing Bar
		Overall Length	L	Max. Qty	2.5 / 5.1	4 / 6.1	6 / 7.9	10 / 9.9	16 / 11.9	35 / 16	50 / 18.5	70 / 20.5	95/120 / 27	
JBEP0808060		70	41	1	6	4	4	0	0	0	0	0	0	N/A
JBEP121209S0		94	73	1	14	12	0	0	0	0	0	0	0	N/A
JBEP1717090		150	122	1	24	20	15	12	9	0	0	0	0	90
JBEP2021100		190	165	1	32	27	20	16	13	9	0	0	0	195
JBEP2021150		199	165	1	32	27	20	16	13	9	0	0	0	155
JBEP2532150		296	245	2	96	80	34	27	22	16	0	0	0	230
JBEP3225150		223	199	2	78	66	50	40	32	12	10	9	0	160
JBEP3250150		476	450	2	176	146	114	90	74	27	23	21	0	470
JBEP3250230		476	450	2	176	146	114	90	74	27	23	21	0	470
JBEP3275150		728	700	2	274	228	176	140	116	43	37	33	0	720
JBEP3275230		728	700	2	274	228	176	140	116	43	37	33	0	720
JBEP5032150		296	270	4	198	168	100	79	66	32	14	12	9	230
JBEP5032230		296	270	4	198	168	100	79	66	32	14	12	9	230
JBEP7532150		296	270	6	318	264	168	133	88	46	28	24	9	230
JBEP7532230		296	270	6	318	264	168	133	88	46	28	24	9	230

JBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes Vertical Din Rail

Increased Safety. For Field Drilling and Customization

Zones 1 & 2 – 21 & 22
Gas (G) and Dust (D)

Rail size for JBEP080806 15 x 5.5 mm. All other rail sizes are 35 x 15 mm or 35 x 7.5 mm.
Terminal block WDU used for all sizes.



Enclosure Catalog Number	Vertical Terminal Rail				Number of Terminals of the same pitch per rail — Nominal cross section (mm²) and pitch (mm)										Earthing Bar
	Length	L	Max. Qty	2.5 / 5.1	4 / 6.1	6 / 7.9	10 / 9.9	16 / 11.9	35 / 16	50 / 18.5	70 / 20.5	95/120 / 27			
JBEP0808060		70	41	1	6	4	4	0	0	0	0	0	0	N/A	
JBEP121209S0		94	73	1	14	12	0	0	0	0	0	0	0	N/A	
JBEP1717090		150	122	1	24	20	15	12	9	0	0	0	0	128	
JBEP2021100		178	149	1	29	24	18	15	11	8	0	0	0	155	
JBEP2021150		178	149	1	29	24	18	15	11	8	0	0	0	195	
JBEP2532150		223	199	2	78	66	50	40	32	12	10	9	0	160	
JBEP3225150		296	245	2	96	80	34	27	22	16	0	0	0	230	
JBEP3250150		296	270	4	198	168	100	79	64	32	14	12	9	230	
JBEP3250230		296	270	4	198	168	100	79	64	32	14	12	9	230	
JBEP3275150		296	270	6	318	264	168	133	88	46	28	24	9	230	
JBEP3275230		296	270	6	318	264	168	133	88	46	28	24	9	230	
JBEP5032150		476	450	2	176	146	114	90	74	27	23	21	0	470	
JBEP5032230		476	450	2	176	146	114	90	74	27	23	21	0	470	
JBEP7532150		728	700	2	274	228	176	140	116	43	37	33	9	720	
JBEP7532230		728	700	2	274	228	176	140	116	43	37	33	9	720	

Enclosures and Junction Boxes

INCREASED SAFETY EX E ZONE 1 RATED JUNCTION BOXES

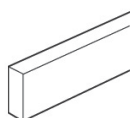
JBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

Increased Safety. Factory Drilled and Equipped

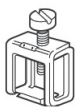
Zones 1 & 2 – 21 & 22
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Solid Copper Bar — Available in 1 Meter Length Pieces

Enclosure Catalog Number	Horizontal Bar Length – mm	Vertical Bar Length – mm	Catalog Number
For 10 x 3 mm length is 1 meter			CB1M
JBEP1717090	128	90	
JBEP2021100	195	97	
JBEP2021150	195	97	
JBEP2532150	300	230	
JBEP3225150	230	300	
JBEP3250150	480	305	
JBEP3250230	480	305	
JBEP3275150	730	300	
JBEP3275230	730	300	
JBEP5032150	305	480	
JBEP5032230	305	480	
JBEP7532150	300	730	
JBEP7532230	300	730	



Cable Clamp for Copper Bar — Pack of 10 — 10 x 3 mm

	Flexible	Solid	Catalog Number
	0.5 to 4 mm ²	6 mm ²	CC6MM
	2.5 to 16 mm ²	16 mm ²	CC16MM
	16 to 35 mm ²	50 mm ²	CC50MM

Spacer for Copper Bar — Supplied with Mounting Inserts

	Description	Height – mm	Catalog Number
	Insulated	50	JBEP CBI
	Non-Insulated	50	JBEP CBNI

Mounting Pan — Solid Galvanized Steel — Supplied with Screws

Enclosure Catalog Number	Dimensions – mm Height x Width x Thickness	Catalog Number
JBEP0808060	46 x 75 x 1	JBEP0407
JBEP121209S0	100 x 80 x 1	JBEP1008
JBEP1717090	152 x 150 x 1	JBEP1515
JBEP2021100, JBEP2021150	185 x 170 x 1.5	JBEP1518
JBEP3225150, JBEP2532150	260 x 230 x 2	JBEP2623
JBEP3250150, JBEP3250230, JBEP5032150, JBEP5032230	480 x 260 x 2	JBEP4826
JBEP3275150, JBEP3275230, JBEP7532150, JBEP7532230	730 x 260 x 2	JBEP7326



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Earth Continuity Brass Plate — Thickness: 3.00 mm

Enclosure Catalog Number	Side – mm	Catalog Number	Bottom – mm	Catalog Number
JBEP121209S0	58 x 44	JBEP02S	72 x 44	JBEP02B
JBEP1717090	105 x 65	JBEP05S	127 x 65	JBEP05B
JBEP2021100	105 x 65	JBEP06S	150 x 65	JBEP06B
JBEP2021150	105 x 105	JBEP07S	150 x 105	JBEP07B
JBEP2532150	150 x 116	JBEP08S	250 x 116	JBEP08B
JBEP3225150	250 x 116	JBEP10S	150 x 116	JBEP10B
JBEP3250150	250 x 116	JBEP11S	180 x 116	JBEP11B
JBEP3250230	250 x 196	JBEP16S	180 x 196	JBEP16B
JBEP3275150	250 x 116	JBEP12S	305 x 116	JBEP12B
JBEP3275230	250 x 196	JBEP17S	305 x 196	JBEP17B
JBEP5032150	180 x 116	JBEP09S	250 x 116	JBEP09B
JBEP5032230	180 x 196	JBEP13S	250 x 196	JBEP13B
JBEP7532150	305 x 116	JBEP14S	250 x 116	JBEP14B
JBEP7532230	305 x 196	JBEP15S	250 x 196	JBEP15B



Mounting Screws — Self Tapping — Used for Mounting DIN Rails and Mounting Pan — Pack of 50

Description	Catalog Number
 Sheet metal screw with a drill point and a Phillips pan head	JBEPMS8

Enclosures and Junction Boxes

INCREASED SAFETY EX E ZONE 1 RATED JUNCTION BOXES

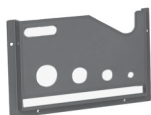
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Self Adhesive Pocket for Drawings — Set of 5, A4 Size

	External Dimension – mm	Internal Dimensions – mm	Catalog Number
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260 x 165

230 x 130 x 18

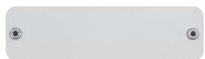
JBEPSAP

Set of 5 — Self adhesive plastic protective sleeve, Size A4.

JBEPSAPS

Laminated Plastic Nameplate for Engraving ②

	Description	Size – mm	Catalog Number
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White color with black lettering,
two (2) mounting rivets included

65 x 18

NPW

Yellow color with black lettering,
two (2) mounting rivets included

65 x 18

NPY

Feed-Thru Earth/Ground Terminal

	Description	Size	Catalog Number
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Stainless steel, complete with gasket washer,
lock washers, nuts for internal and external cable
connections

M8

JBEPET

Set of 10 — Press fit, brass expansion insert

M5

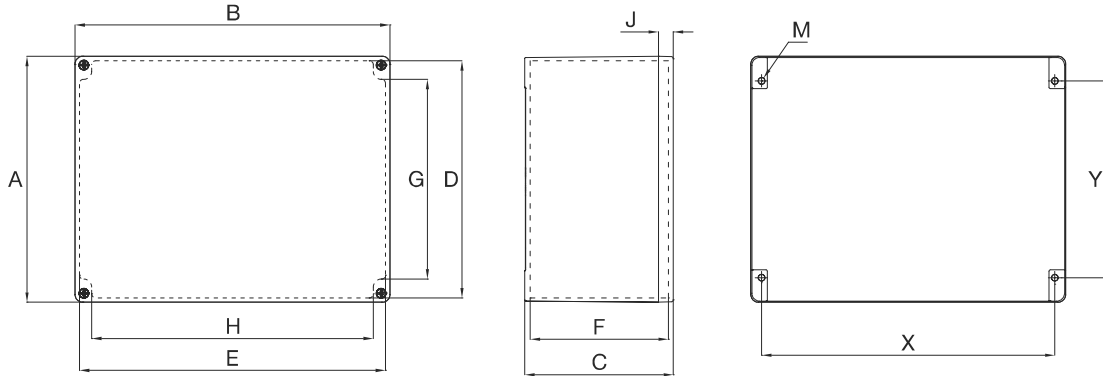
JBEPExI

② Due to the size of JBEP0808060, optional Laminated Plastic Nameplate for Engraving is not recommended for this enclosure.
The 85 x 85 x 60 mm dimensions do not allow for mounting space beyond the factory adhered product label.

JBEP Series Undrilled and Predrilled, Empty Fiberglass Reinforced Polyester Junction Boxes

Increased Safety. For Field Drilling and Customization

Dimensions in Millimeters ①



Enclosure Catalog Number	External Dimension			Internal Dimensions					Cover J	Body Thickness	Wall Fixing		
	A	B	C	D	E	F	G	H			X	Y	M ②
JBEP0808060	85	85	61	76.7	76.7	47	41	51	15	3.5	69	49	M4
JBEP1212070	120	120	66	109.5	109.5	50.7	63	85	15	4.5	103	83	M5
JBEP1212090	120	120	91	109.5	109.5	75	63	85	40	4.5	103	83	M5
JBEP121209S0	120	120	91	108.6	108.6	75	63	85	15	4.5	103	83	M5
JBEP1717090	170	170	91	158.5	158.5	72	112.5	137	15	4.5	153	131	M5
JBEP1712090	170	120	91	159.5	109.5	75	107.3	87	40	4.5	103	131	M5
JBEP2021100	200	215	95	185.8	200.8	76	116	159	20	6.1	189	146	M6
JBEP2021150	200	215	145	185.8	200.8	122.5	114.8	159	20	6.1	189	146	M6
JBEP2532150	250	320	150	241	311	133.5	171	267	15	4.5	200	298	M6
JBEP3225150	320	250	150	311	241	133.5	267	171	15	4.5	298	200	M6
JBEP3250150	320	500	150	311	491	133.5	267	421	15	4.5	298	447	M6
JBEP3250230	320	500	230	311	491	213.5	267	421	15	4.5	298	447	M6
JBEP3275150	320	750	150	311	741	133.5	267	671	15	4.5	298	698	M6
JBEP3275230	320	750	230	311	741	213.5	267	671	15	4.5	298	698	M6
JBEP5032150	500	320	150	491	311	133.5	421	267	15	4.5	447	298	M6
JBEP5032230	500	320	230	491	311	213.5	421	267	15	4.5	447	298	M6
JBEP7532150	750	320	150	741	311	133.5	671	267	15	4.5	298	698	M6
JBEP7532230	750	320	230	741	311	213.5	671	267	15	4.5	698	298	M6

① Wall fixing screw diameter 5 mm . Wall fixing screw hole 6 mm.

② Screw to be used for mounting box.