

# AJBEW Cast Junction Boxes

## Explosionproof, Dust-Ignitionproof

### NEC/CEC:

Class I, Division 1 and 2, Groups B $\diamond$ , C $\diamond$ , D $\diamond$   
 Class I, Zone 1 and 2, Groups IIA, IIB $\diamond$ +H $\diamond$ <sub>2</sub> $\diamond$   
 Class II, Division 1 and 2, Groups E, F, G  
 Class III  
 NEMA 4, 7B $\diamond$ C $\diamond$ D, 9EFG

### ATEX/IECEx — Optional ①:

Zone 1 and 2 – 21 and 22  
 Ⓢ II 2 GD  
 IP66 – IK10

### Application

- Explosionproof junction boxes are used where hazardous materials are handled or stored. These enclosures may be used for:
  - Terminals
  - Splicing wires
  - Pull boxes
  - Bus boxes

### Features

- Precision machined flame path between box and cover.
- Bolt on stainless steel slotted mounting feet for horizontal or vertical mounting.
- Flexible hinge mounting either left or right side is standard on all boxes 12 x 12 x 06 and larger.
- External flange maximizes internal space.
- Wall thickness suitable for minimum of five full threads.
- Provision for mounting pan.
- Wide range of drilled and tapped outlets.
- Ground lug package and installation instructions for termination of ground wires enclosed.
- O-ring gasket insures watertight integrity.

### Standard Materials

- Bodies and covers: sand cast copperfree (4/10 of 1% max.) aluminum
- Cover bolts: stainless steel
- O-ring: neoprene
- Hinges: stainless steel
- Mounting pan: galvanized steel

### Standard Finishes

- Bodies and covers: shot blast finish standard

### Options

- Custom drilling and tapping.
- Set of 4 standoffs 12.7 mm (0.50") high. For factory-installed option add suffix **-AB**.
- Breather, NEMA 4X (includes outlets and installation). For factory-installed option add suffix **-BR**, for field-installed option order catalog number **BRTB4X**.
- Drain, NEMA 4X (includes outlets and installation). For factory-installed option add suffix **-DN** for field-installed option order catalog number **ECD50B4X**.
- Desiccate package. For factory-installed option add suffix **-DP1**, for field-installed option order catalog number **AWG13/1CT**.
- External grounding stud 3/8"-16. For factory-installed option add suffix **-EGS**.
- Gray epoxy powder coat (outside). For factory-installed option add suffix **-G1**.
- Gray epoxy powder coat available to provide NEMA 4X rating (inside and outside). For factory-installed option add suffix **-G2**.
- Internal Ground Stud, #14 - #2. For factory-installed option add suffix **-GNDKIT**.
- Hinges: stainless steel hinge available for boxes up to 11 x 30 x 03. For factory-installed option add suffix **-H**.
- Hinge Kit, 2 light duty SS hinges. For field-installed option order catalog number **AHOF12SS**.
- Hinge Kit, 2 heavy duty SS hinges. For field-installed option order catalog number **AHOF22SS**.



- Hinge Kit, 3 heavy duty SS hinges. For field-installed option order catalog number **AHOF23SS**.
- Terminal blocks 600 Volt, 30 Amp Indicate number of points: example: 5 points = 5K. For factory-installed option add suffix **-K**.
- Plastic nameplate, 50.8 x 101.6 mm (2.00 x 4.00"), 3.3 mm (13") black letters on white surface, 3 lines max, specify legend. For factory-installed option add suffix **-NP**.
- SS captive Quad-Lead bolts. For factory-installed option add suffix **-Q**.
- ATEX complete product certification add suffix **-X** ①.
- ATEX U component certification add suffix **-XU** ①.
- Mounting pan. For factory-installed option add suffix **-Z**.

### NEC/CEC Certifications and Compliances

- UL Standard: UL 1203
- cULus Listed: E85310
- CSA Standard: C22.2 No. 25, C22.2 No.30
- CSA Certified: 042129

### ATEX/IECEx Certifications and Compliances

- Certification Type JBEW
  - Gas, Zones 1 and 2
    - Conforming to ATEX 94/9/CE: Ⓢ II 2 G
    - Type of Protection: Ex d IIB + H $\diamond$  GB
  - Dust, Zones 21 and 22
    - Conforming to ATEX 94/9/CE: Ⓢ II 2 D
    - Type of Protection: Ex t Db
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- CE Declaration of Conformity: 5C239
- ATEX Certificate: LCIE 07 ATEX 6069X
- IECEx Certificate: IECEx LCI 07.0018X
- Internal Volume: > 2dm<sup>3</sup> (122 in<sup>3</sup>) — 2 liters
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK10

### EURASEC Certification

- Certification Type JBEW
  - EURASEC N° TC RU C-FR.Г505.В.00911

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**ATEX/IECEx — Optional ①:**

Zone 1 and 2 – 21 and 22  
 II 2 GD  
 IP66 – IK10

Overall Dimensions			Dimensions in Millimeters (Inches)									Max. Conduit Size	Ship Weight	Mounting Hardware	Catalog Number
F	E	G	A	AA	B	BB	W	H	Db	Dc	K	Inches	kg (lb)	Number	Number
416.1 (16.38)	889.0 (35.00)	260.4 (10.25)	241.3 (9.50)	384.3 (15.13)	835.2 (32.88)	692.2 (27.25)	285.8 (11.25)	759.0 (29.88)	157.2 (6.19)	47.8 (1.88)	106.4 (4.19)	3	51.3 (113)	AMH8	AJBEW113006
441.5 (17.38)	441.5 (17.38)	235 (9.25)	219.2 (8.63)	397.0 (15.63)	397.0 (15.63)	219.2 (8.63)	311.2 (12.25)	311.2 (12.25)	146.1 (5.75)	38.1 (1.50)	95.3 (3.75)	3	29.5 (65)	AMH8	AJBEW121206
441.5 (17.38)	441.5 (17.38)	292.1 (11.50)	219.2 (8.63)	397.0 (15.63)	397.0 (15.63)	219.2 (8.63)	311.2 (12.25)	311.2 (12.25)	196.9 (7.75)	38.1 (1.50)	120.7 (4.75)	3	31.8 (70)	AMH8	AJBEW121208
431.8 (17.00)	584.2 (23.00)	231.9 (9.13)	177.8 (7.00)	400.1 (15.75)	533.4 (21.00)	358.9 (14.13)	311.2 (12.25)	463.6 (18.25)	146.1 (5.75)	38.1 (1.50)	88.9 (3.50)	4	40.8 (90)	AMH5	AJBEW121806
431.8 (17.00)	584.2 (23.00)	282.7 (11.13)	177.8 (7.00)	400.1 (15.75)	533.4 (21.00)	358.9 (14.13)	311.2 (12.25)	463.6 (18.25)	222.3 (8.75)	38.1 (1.50)	108.0 (4.25)	4	45.8 (101)	AMH5	AJBEW121808
425.5 (16.75)	730.3 (28.75)	282.7 (11.13)	N/A	400.1 (15.75)	N/A	466.9 (18.38)	304.8 (12.00)	609.6 (24.00)	196.9 (7.75)	25.4 (1.00)	108.0 (4.25)	4	62.6 (138)	AMH4	AJBEW122408
425.5 (16.75)	1035.1 (40.75)	301.8 (11.88)	N/A	400.1 (15.75)	N/A	736.6 (29.00)	304.8 (12.00)	914.4 (36.00)	196.9 (7.75)	38.1 (1.50)	115.8 (4.56)	4	98.9 (218)	AMH5	AJBEW123608
457.2 (18.00)	1079.5 (42.50)	265.2 (10.44)	409.7 (16.13)	301.8 (11.88)	1035.1 (40.75)	857.3 (33.75)	346.2 (13.63)	962.2 (37.88)	155.7 (6.13)	38.1 (1.50)	109.5 (4.31)	3-1/2	86.2 (190)	AMH8	AJBEW133806
492.3 (19.38)	492.3 (19.38)	242.8 (9.56)	247.7 (9.75)	450.9 (17.75)	450.9 (17.75)	247.7 (9.75)	374.7 (14.75)	374.7 (14.75)	146.1 (5.75)	35.1 (1.38)	98.6 (3.88)	3-1/2	44.5 (98)	AMH8	AJBEW141406
492.3 (19.38)	492.3 (19.38)	293.6 (11.56)	247.7 (9.75)	450.9 (17.75)	450.9 (17.75)	247.7 (9.75)	374.7 (14.75)	374.7 (14.75)	196.9 (7.75)	35.1 (1.38)	101.6 (4.00)	3	47.6 (105)	AMH8	AJBEW141408
498.6 (19.63)	736.6 (29.00)	304.8 (12.00)	333.5 (13.13)	N/A	698.5 (27.50)	N/A	378 (14.88)	616.0 (24.25)	203.2 (8.00)	38.1 (1.50)	101.6 (4.00)	4	59.4 (131)	AMH6	AJBEW142408
539.8 (21.25)	1092.2 (43.00)	306.3 (12.06)	349.3 (13.75)	508.0 (20.00)	1057.4 (41.63)	812.8 (32.00)	397 (15.63)	946.2 (37.25)	189.0 (7.44)	38.1 (1.50)	133.4 (5.25)	4	113.4 (250)	AMH8	AJBEW153707
533.4 (21.00)	533.4 (21.00)	249.2 (9.81)	279.4 (11.00)	501.7 (19.75)	501.7 (19.75)	279.4 (11.00)	419.1 (16.50)	419.1 (16.50)	146.1 (5.75)	38.1 (1.50)	98.6 (3.88)	3-1/2	59.9 (132)	AMH8	AJBEW161606
533.4 (21.00)	533.4 (21.00)	314.7 (12.39)	279.4 (11.00)	501.7 (19.75)	501.7 (19.75)	279.4 (11.00)	419.1 (16.50)	419.1 (16.50)	212.9 (8.38)	38.1 (1.50)	124.0 (4.88)	4	63.5 (140)	AMH8	AJBEW161608
543.1 (21.38)	593.9 (23.38)	382.5 (15.06)	304.8 (12.00)	482.6 (19.00)	533.4 (21.00)	355.6 (14.00)	412.8 (16.25)	463.6 (18.25)	301.8 (11.88)	9.7 (0.38)	177.8 (7.00)	4	68.0 (150)	AMH8	AJBEW161812
546.1 (21.50)	693.7 (27.31)	230.1 (9.06)	330.2 (13.00)	505.0 (19.88)	641.4 (25.25)	393.7 (15.50)	417.6 (16.44)	571.5 (22.50)	146.1 (5.75)	31.8 (1.25)	84.1 (3.31)	3	59.0 (130)	AMH8	AJBEW162206
533.4 (21.00)	711.2 (28.00)	308.1 (12.13)	N/A	501.7 (19.75)	N/A	466.9 (18.38)	412.8 (16.25)	616.0 (24.25)	209.6 (8.25)	38.1 (1.50)	134.9 (5.31)	4	81.6 (180)	AMH6	AJBEW162408
527.1 (20.75)	831.9 (32.75)	219.2 (8.63)	330.2 (13.00)	N/A	781.1 (30.75)	N/A	412.8 (16.25)	717.6 (28.25)	146.1 (5.75)	38.1 (1.50)	79.5 (3.13)	3	68.0 (150)	AMH5	AJBEW162806
593.9 (23.38)	593.9 (23.38)	252.5 (9.94)	330.2 (13.00)	552.5 (21.75)	552.5 (21.75)	330.2 (13.00)	463.6 (18.25)	463.6 (18.25)	146.1 (5.75)	38.1 (1.50)	104.9 (4.13)	3-1/2	85.3 (188)	AMH8	AJBEW181806

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# AJBEW Cast Junction Box Drilling and Tapping Guidelines

Explosionproof, Dust-Ignitionproof

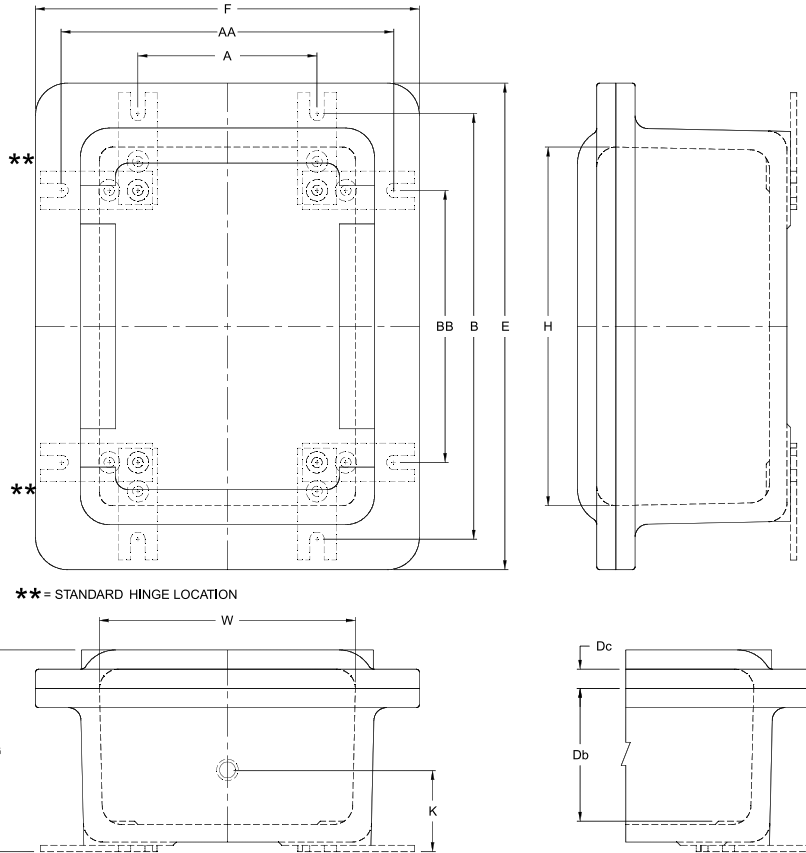
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 Class III  
 NEMA 4, 7B $\diamond$ C $\diamond$ D, 9EFG

**ATEX/IECEx — Optional ①:**

Zone 1 and 2 – 21 and 22  
 ② II 2 GD  
 IP66 – IK10

Dimensions — See Catalog Number Tables



\*\* = STANDARD HINGE LOCATION

**Drilling and Tapping Guidelines**

Conduit Size (NPT)	Minimum Spacing For Conduit Centers in Millimeters (Inches)									
	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
1/2	54.1 (2.13)	54.1 (2.13)	57.2 (2.25)	66.8 (2.63)	71.4 (2.81)	79.5 (3.13)	92.2 (3.63)	101.6 (4.00)	114.3 (4.50)	114.3 (4.50)
3/4	54.1 (2.13)	54.1 (2.13)	57.2 (2.25)	66.8 (2.63)	71.4 (2.81)	79.5 (3.13)	92.2 (3.63)	101.6 (4.00)	114.3 (4.50)	114.3 (4.50)
1	57.2 (2.25)	57.2 (2.25)	60.5 (2.38)	71.4 (2.81)	76.2 (3.00)	82.6 (3.25)	95.3 (3.75)	104.9 (4.13)	114.3 (4.50)	117.6 (4.63)
1-1/4	66.8 (2.63)	66.8 (2.63)	71.4 (2.81)	79.5 (3.13)	84.1 (3.31)	92.2 (3.63)	104.9 (4.13)	114.3 (4.50)	120.7 (4.75)	127.0 (5.00)
1-1/2	71.4 (2.81)	71.4 (2.81)	76.2 (3.00)	84.1 (3.31)	88.9 (3.50)	96.8 (3.81)	109.5 (4.31)	117.6 (4.63)	125.5 (4.94)	133.4 (5.25)
2	79.5 (3.13)	79.5 (3.13)	82.6 (3.25)	92.2 (3.63)	96.8 (3.81)	104.9 (4.13)	117.6 (4.63)	127.0 (5.00)	148.1 (5.83)	146.1 (5.75)
2-1/2	92.2 (3.63)	92.2 (3.63)	95.3 (3.75)	104.9 (4.13)	109.5 (4.31)	117.6 (4.63)	130.3 (5.13)	84.1 (3.31)	146.1 (5.75)	155.7 (6.13)
3	101.6 (4.00)	101.6 (4.00)	104.9 (4.13)	114.3 (4.50)	117.6 (4.63)	127.0 (5.00)	84.1 (3.31)	146.1 (5.75)	152.4 (6.00)	158.8 (6.25)
3-1/2	114.3 (4.50)	114.3 (4.50)	114.3 (4.50)	120.7 (4.75)	125.5 (4.94)	136.7 (5.38)	146.1 (5.75)	152.4 (6.00)	158.8 (6.25)	165.1 (6.50)
4	114.3 (4.50)	114.3 (4.50)	117.6 (4.63)	127.0 (5.00)	133.4 (5.25)	146.1 (5.75)	155.7 (6.13)	158.8 (6.25)	165.1 (6.50)	171.5 (6.75)

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