

PJB Series Polyester Nonmetallic Enclosures

NEC/CEC:
Class 1, Zone 1 and 2 A/Exe II T5 or T6
IP66

ATEX/IECEX:
Zone 1 and 2 – 21 and 22
⊕ II 2 GD
IP66 – IK10

Applications

- Terminal, junction box enclosure for various electrical devices.
- Designed for use in Class I, Zone 1 areas, where flammable gases or vapors are present either continuously or intermittently, such as:
 - Petroleum refineries
 - Chemical refineries
 - Food processing
 - Dairy
 - Brewing
 - Other industrial process facilities
- Ideal for wet or corrosive atmospheres.

Features

- Static resistant black fiberglass reinforced polyester enclosure.
- Five different sizes to choose from
- Available in three depths, 200 mm (7.87"), 250 mm (9.84") and 300 mm (11.81").
- Enclosures can be coupled together for added space.
- Protective Flange at top and bottom.
- Pad lockable double bar locks, Key supplied.
- Operating temperature -40 °C to +55 °C (-40 °F to +131 °F).
- Enclosures are rated for 600 Vac, 400 Amp Maximum. Maximum Dissipated power is 125 W.
- A Exe IIC, Exe IIC T6 to T3 depending on the equipment housed in the enclosure.
- The overall IP and Temperature Class rating of the enclosure is governed by the lowest rating of any devices interfacing with the enclosure.
- Poured in place polyurethane door gasket.
- Many optional accessories.

Standard Materials

- Enclosure: static resistant carbon filled fiberglass reinforced polyester (FRP)
- Hardware: 316L stainless steel

Options or Accessories

- Mounting Pan.
- Gland Plates.
- Interior side rails.
- Din Rails.
- Side Rail and Din rail assembly.
- See table for several terminal block options and limitations. Supplied installed in enclosure. Other terminal block configurations available. Contact your local sales representative.
- Ground bars.
- Terminals for Ground bar.
- Terminal spacers, 100 mm (3.94") or 50 mm (1.97").
- Padlocking Device.
- Factory drilled entries.
- Earth Continuity Plate.
- Terminal Blocks, see following pages for a guide. Many other configurations and combinations available, contact your local sales representative.
- Enclosure coupling kit, contact your local sales representative.



NEC/CEC Certifications and Compliances

- UL Standard: 886
- CSA Standard: C22.2 No. 25, C22.2 No. 30
- cCSAus Certified: 013017

ATEX/IECEX Certifications and Compliances

- Certification Type CAe
 - Gas, Zones 1 and 2
 - Conforming to ATEX 94/9/CE: ⊕ II 2 G
 - Type of Protection: Ex e II, Ex eia IIC, Ex eib IIC, Ex ede IIC, Ex edemb IIC
 - Temperature Class: T6 for $T_a \leq +40$ °C (+104 °F); T5 for $+40$ °C $\leq T_a \leq +55$ °C (+104 °F $\leq T_a \leq +131$ °F)
 - Dust, Zones 21 and 22
 - Conforming to ATEX 94/9/CE: ⊕ II 2 D
 - Type of Protection: Ex tD A21
 - Ambient Temperature: T80 °C to T96 °C (T176 °F to T205 °F)
 - CE Declaration of Conformity: 50325
 - ATEX Certificate: LCIE 02 ATEX 6248X
 - IECEX Certificate: IECEX LCI 04.0016X
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK10

EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00911

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ENCLOSURES AND JUNCTION BOXES: NEC/CEC, ATEX/IECEX INCREASED SAFETY JUNCTION BOXES

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Catalog Numbering Guide

Confirm size and gland plate availability in below table.

PJB Series	40 Length Dimensions mm (in): 12 - 120.0 (4.72) 17 - 170.0 (6.69) 21 - 210.0 (8.27) 23 - 230.0 (9.06) 32 - 320.0 (12.60) 40 - 400.0 (15.75) 42 - 425.0 (16.75) 50 - 500.0 (19.68) 57 - 575.0 (22.50) 60 - 600.0 (23.62) 80 - 800.0 (31.50) 10 - 1000.0 (39.37)	30 Width Dimensions mm (in): 12 - 120.0 (4.72) 20 - 200.0 (7.87) 30 - 300.0 (11.81) 40 - 400.0 (15.75) 60 - 600.0 (23.62) 80 - 800.0 (31.50)	20 Depth Dimensions mm (in): 09 - 91.0 (3.58) 15 - 150.0 (5.91) 20 - 200.0 (7.87) 25 - 250.0 (9.84) 30 - 300.0 (11.81)	0 Gland Plates: 0 - none 1 - one bottom 3 - two sides and bottom	N Mounting Pan: N - None P - Mounting pan	N Earth Continuity Plate: N - None E - Supplied	25 Terminal Block Size mm (in): 25 - 2.5 (0.10) 04 - 4.0 (0.16) 06 - 6.0 (0.24) 10 - 10.0 (0.39) 16 - 16.0 (0.63) 35 - 35.0 (1.378)	010 Terminal Block Quantity: 010 - 10 050 - 50 100 - 100
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Confirm Size and Gland Plate Availability

Possible Gland Plates			Dimensions in Millimeters (Inches)			Volume dm ³ (in ³)	Weight kg (lb)	Catalog Number
0	1	3	Height	Width	Depth			
x	x	x	400.0 (15.78)	300.0 (11.81)	200.0 (7.87)	25.0 (1526.0)	4.8 (10.58)	PJB403020
x	x	x	500.0 (19.68)	400.0 (15.78)	200.0 (7.87)	51.0 (3112.0)	6.2 (13.67)	PJB504020
x	x	x	600.0 (23.62)	400.0 (15.78)	250.0 (9.84)	80.0 (4882.0)	7.7 (16.98)	PJB604025
x	x	x	800.0 (31.50)	600.0 (23.62)	300.0 (11.81)	190.0 (11595.0)	18.3 (40.34)	PJB806030
x	x	x	1000.0 (39.37)	800.0 (31.50)	300.0 (11.81)	313.0 (19100.0)	23.6 (52.03)	PJB108030

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Maximum Terminal Block Information

Number Rails	Terminal Size mm (in)	Qty Max * Physical	Terminal Amp	Qty Max At Max. Amps	Terminal Amp	Catalog Number
3	2.5 (0.10)	100	5	22	15	PJB403020
3	4.0 (0.16)	75	10	20	20	PJB403020
2	6.0 (0.24)	36	15	12	30	PJB403020
4	4.0 (0.16)	100	10	30	20	PJB504020
4	6.0 (0.24)	76	15	18	30	PJB504020
3	10.0 (0.39)	64	20	18	40	PJB504020
4	6.0 (0.24)	136	12	27	30	PJB604025
4	10.0 (0.39)	112	16	25	40	PJB604025
4	16.0 (0.63)	88	20	24	50	PJB604025
6	10.0 (0.39)	190	14	27	40	PJB806030
5	16.0 (0.63)	190	15	24	50	PJB806030
4	35.0 (1.38)	124	30	16	90	PJB806030
7	16.0 (0.63)	364	12	28	50	PJB108030
5	35.0 (1.38)	218	20	20	90	PJB108030
3	70.0 (2.76)	84	40	9	145	PJB108030

Small Junction Boxes

Type	Quantity	Maximum Amps
PJB121209 120 x 120 x 91 mm (5 x 5 x 4")	12	15 A
	10	20 A
	7	32 A
	4	50 A
PJB171209 120 x 170 x 91 mm (7 x 5 x 4")	22	13 A
	18	19 A
	14	27 A
PJB231209 120 x 230 x 91 mm (9 x 5 x 4")	6	50 A
	33	12 A
	28	16 A
	21	24 A
	8	50 A






* Maximum physical at amperage indicated, capable of accepting more terminals at lower amperage. Contact your local sales representative.
To order terminal blocks: Use nomenclature above. Supplied installed on a mounting pan. Can be installed on uprights and rails. Contact your local sales representative.

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Accessories and Options — Order as follows for field installed

		Dimensions in Millimeters (Inches)		Catalog Number	
		Height	Length		
Interior Side Rails/Uprights — Set of 2 — Supplied in Packages of 5					
		400 (15.78)	337.0 (13.27)	PJBSR400	
		500 (19.68)	437.0 (17.20)	PJBSR500	
		600 (23.62)	537.0 (21.14)	PJBSR600	
		800 (31.50)	737.0 (29.02)	PJBSR800	
		1000 (39.37)	937.0 (36.89)	PJBSR1000	
		Width in Millimeters (Inches)		Catalog Number	
		For Enclosure	Crosspiece		
Cross Piece Din Rails — Set of 10					
		300 (11.81)	243.0 (9.57)	PJBDR300	
		400 (15.78)	343.0 (13.50)	PJBDR400	
		600 (23.62)	543.0 (21.38)	PJBDR600	
		800 (31.50)	743.0 (29.25)	PJBDR800	
		Dimensions in Millimeters (Inches)		Weight	Catalog
		Enclosure H x W	H x W	kg (lb)	Number
Perforated Mounting Plate — To Order Separately					
		400.0 (15.78) x 300.0 (7.87)	350.0 (13.78) x 250.0 (9.84)	1.2 (2.65)	PJBMP400
		500.0 (19.68) x 400.0 (15.75)	450.0 (17.72) x 350.0 (13.78)	1.1 (2.43)	PJBMP500
		600.0 (23.62) x 400.0 (15.75)	550.0 (21.65) x 350.0 (13.78)	1.5 (3.31)	PJBMP600
		800.0 (31.50) x 600.0 (23.62)	750.0 (29.53) x 550.0 (21.65)	3.0 (6.61)	PJBMP800
		1000.0 (39.37) x 800.0 (31.50)	950.0 (37.40) x 750.0 (29.53)	5.5 (12.13)	PJBMP1000
		Dimension	Volume	Weight	Catalog
		H x W mm (in)	dm ³ (in ³)	kg (lb)	Number
Gland Plates — To Order Separately					
		130.0 (5.12) x 264.0 (10.39)	1.3 (79)	0.3 (0.66)	PJBGP130
		114.0 (4.49) x 322.0 (12.68)	1.4 (85)	0.4 (0.88)	PJBGP114
Door Padlocking Device					PJBPL

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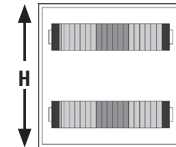
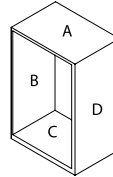
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JBEP Series for Terminal Junction Box Application Only.

The size of the junction box needed to meet your requirements can be selected based on the table shown below.

1. Define maximum cable entries according to number of modules available per side.

Cable Entry Metric Thread	Number of Modules
M20	1
M25	1
M32	1
M40	2
M50	3



Type	Dimensions mm (in)			B/D	Number of Modules			Allowable Max. Size	Terminal Dim. H — mm (in)
	Length	Width	Depth		A/C	A'/C' (1)			
PJB121209	120.0 (4.72)	120.0 (4.72)	91.0 (3.58)	2	2	–	M25	120.0 (4.72)	
PJB171209	170.0 (6.69)	120.0 (4.72)	91.0 (3.58)	3	2	–	M32	120.0 (4.72)	
PJB231209	230.0 (9.06)	120.0 (4.72)	91.0 (3.58)	4	2	–	M32	120.0 (4.72)	
PJB212015	215.0 (8.46)	200.0 (7.87)	150.0 (5.91)	11	8	–	M50	200.0 (7.87)	
PJB322015	320.0 (12.60)	200.0 (7.87)	150.0 (5.91)	18	8	–	M50	200.0 (7.87)	
PJB422015	425.0 (16.73)	200.0 (7.87)	150.0 (5.91)	26	8	–	M50	200.0 (7.87)	
PJB572015	575.0 (22.64)	200.0 (7.87)	150.0 (5.91)	38	8	–	M50	200.0 (7.87)	
PJB403020	400.0 (15.75)	300.0 (11.81)	206.0 (8.11)	18	18	–	M50	400.0 (15.75)	
PJB504020	500.0 (19.68)	400.0 (15.75)	206.0 (8.11)	24	10	10	M50	500.0 (19.68)	
PJB604025	610.0 (24.02)	400.0 (15.75)	257.0 (10.12)	48	10	10	M75	610.0 (24.02)	
PJB806030	820.0 (32.28)	610.0 (24.02)	300.0 (11.81)	72	54	–	M100	820.0 (32.28)	
PJB108030	1020.0 (40.16)	810.0 (31.89)	300.0 (11.81)	96	78	–	M100	1020.0 (40.16)	

2. Maximum rail arrangement according to physical dimensions.

Terminal Capacity mm ² (in ²)	Maximum Quantity of Horizontal Rails Per Quantity						
	2.5 (0.004)	4.0 (0.006)	6.0 (0.009)	10.0 (0.016)	16.0 (0.025)	35.0 (0.054)	50.0 (0.078)
PJB 12/17/23 1209	1	1	1	1	0	0	0
PJB 21/32/42/57 2015	1	1	1	1	1	1	0
PJB403020	3	3	3	2	2	2	1
PJB504020	4	4	3	3	3	2	1
PJB604025	4	4	4	4	3	3	2
PJB806030	6	6	5	5	5	4	3
PJB108030	8	8	7	7	6	5	3

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3. Defining maximum terminal block quantity according to power dissipation:

- Junction boxes used for instrumentation applications have very low current levels, therefore there is no risk of overheating whatever the number of terminals inside the box.
- For applications other than instrumentation, the following tables allow you to define your junction box depending on the number of terminals and the maximum authorized current being carried with feed-through terminals.
- For single feed terminals using cross connection, please consult your local representative for a calculation.

For other terminal block configurations, please consult our drilling guide available online at: www.appletonelec.com.

Small Junction Boxes

T Rating: T6	Type		
	PJB121209	PJB171209	PJB231209
	120 x 120 x 91 mm (5 x 5 x 4")	120 x 170 x 91 mm (7 x 5 x 4")	120 x 230 x 91 mm (9 x 5 x 4")
2.5 mm ² (0.004 in ²)	Qty. 12 15 A	Qty. 22 13 A	Qty. 33 12 A
4 mm ² (0.006 in ²)	Qty. 10 20 A	Qty. 18 19 A	Qty. 28 16 A
6 mm ² (0.009 in ²)	Qty. 7 32 A	Qty. 14 27 A	Qty. 21 24 A
10 mm ² (0.016 in ²)	Qty. 4 50 A	Qty. 6 50 A	Qty. 8 50 A

Non-Hinged Junction Boxes

T Rating: T6 @ Ta 40 °C (104 °F) T5 @ Ta 55° C (131 °F)	Type			
	PJB212015	PJB322015	PJB422015	PJB572015
	200 x 215 x 150 mm (8 x 9 x 6")	200 x 320 x 150 mm (8 x 13 x 6")	200 x 425 x 150 mm (8 x 17 x 6")	200 x 575 x 150 mm (8 x 23 x 6")
2.5 mm ² (0.004 in ²)	Qty. 20 16 A	Qty. 21 16 A	Qty. 23 16 A	Qty. 29 14 A
4 mm ² (0.006 in ²)	Qty. 19 20 A	Qty. 20 20 A	Qty. 23 20 A	Qty. 33 16 A
6 mm ² (0.009 in ²)	Qty. 12 32 A	Qty. 13 32 A	Qty. 14 32 A	Qty. 18 28 A
10 mm ² (0.016 in ²)	Qty. 10 40 A	Qty. 11 40 A	Qty. 18 32 A	Qty. 22 28 A
16 mm ² (0.024 in ²)	Qty. 8 28 A	Qty. 10 27 A	Qty. 13 25 A	Qty. 15 26 A
25 mm ² (0.039 in ²)	Qty. 8 67 A	Qty. 8 73 A	Qty. 10 69 A	Qty. 10 70 A
35 mm ² (0.054 in ²)	Qty. 8 79 A	Qty. 8 86 A	Qty. 10 80 A	Qty. 10 80 A

Hinged Junction Boxes

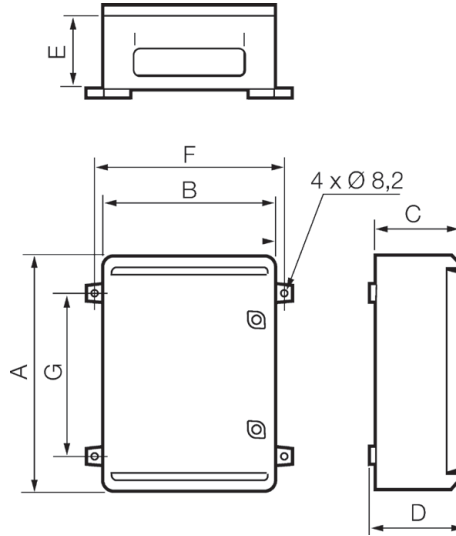
T Rating: T6 @ Ta 40°C (104 °F) T5 @ Ta 55° C (131 °F)	Type				
	PJB403020	PJB504020	PJB604025	PJB806030	PJB108030
	400 x 300 x 206 mm (16 x 12 x 8")	500 x 400 x 206 mm (20 x 16 x 8")	610 x 400 x 257 mm (24 x 16 x 10")	820 x 610 x 300 mm (32 x 24 x 12")	1020 x 810 x 300 mm (40 x 32 x 12")
35 mm ² (0.054 in ²)	Qty. 12 100 A	Qty. 16 100 A	Qty. 16 100 A	—	—
50 mm ² (0.078 in ²)	Qty. 8 125 A	Qty. 12 125 A	Qty. 16 125 A	—	—
70 mm ² (0.109 in ²)	Qty. 8 160 A	Qty. 10 160 A	Qty. 12 160 A	—	—
95 mm ² (0.147 in ²)	Qty. 8 200 A	Qty. 10 200 A	Qty. 12 200 A	—	—
120 mm ² (0.186 in ²)	Qty. — 1 Max.	Qty. 8 250 A	Qty. 8 250 A	Qty. 12 200 A	Qty. 16 150 A
150 mm ² (0.233 in ²)	Qty. — 1 Max.	—	Qty. 6 250 A	Qty. 9 250 A	Qty. 12 190 A
185 mm ² (0.287 in ²)	Qty. — 1 Max.	—	—	Qty. 8 300 A	Qty. 10 240 A

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Dimensions in Millimeters (Inches)



Catalog Number	External			Fitting			
	A	B	C	D	E	F	G
PJB403020	405 (15.94)	305 (12.01)	200 (7.87)	215 (8.46)	180 (7.09)	326 (12.83)	336 (13.23)
PJB504020	500 (19.68)	400 (15.78)	200 (7.87)	215 (8.46)	180 (7.09)	425 (16.73)	465 (18.31)
PJB604025	600 (23.62)	400 (15.78)	250 (9.84)	265 (10.43)	230 (9.06)	425 (16.73)	566 (22.28)
PJB806030	828 (32.60)	618 (24.33)	300 (11.81)	315 (12.40)	280 (11.02)	658 (25.91)	768 (30.24)
PJB108030	1028 (40.47)	818 (32.20)	300 (11.81)	315 (12.40)	280 (11.02)	858 (33.78)	968 (38.11)

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