

## Aluminum Enclosures (Type 4X)



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Aluminum Enclosures (Type 4X)

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Technical references and CAD downloads available at [www.hammondmfg.com](http://www.hammondmfg.com)

All dimensions in inches unless specified otherwise

## Type 4X Aluminum Junction Box *Eclipse Junior Series*

Continuous Hinge Door with Quarter Turn



Quick Link: [hammfg.com/EJAL](http://hammfg.com/EJAL)

### Application

- Designed for use as instrument enclosures, electric, hydraulic or pneumatic control housings, electrical junction boxes or terminal wiring enclosures.
- Provides protection where equipment may be hosed down or otherwise be very wet, or in specific applications where corrosion may be a problem.

### Standards

- UL 508A Type 3R, 4, 4X, 12, and 13
- CSA Type 3R, 4, 4X, 12, and 13
- Complies with
  - NEMA Type 3R, 4, 4X, 12 and 13
  - IEC 60529, IP66

### Construction

- Formed from 0.08" Type 5052 H-32 aluminum.
- Smooth, continuously welded seams without knockouts, cutouts, or holes.
- Formed lip on enclosure to exclude flowing liquids and contaminants.
- Welded brackets provide for enclosure mounting.
- Continuously hinged cover has aluminum hinge and provides 180° opening.
- Door latches feature the added safety of quarter turn slot requiring use of tool for opening.
- Quarter turn latches formed from 316 stainless steel.
- Seamless poured-in place gasket.
- Models larger than 4"x4" include a removable 14 gauge galvanized inner panel.
- Tapped studs are provided for mounting inner panels.

- A bonding stud is provided on the door and a grounding stud is provided on the enclosure.
- Grounding and panel mounting hardware provided.

### Finish

- Cover and enclosure are natural unfinished aluminum.
- Removable inner panel is unpainted galvanized steel.

### Accessories

- Additional Inner Panels...*See Page 294*
- Swing Panel Kit...*See Page 302*
- Terminal Kit Assemblies...*See Page 302*
- Padlock Adaptor...*See Page 286*
- Quarter Turn Assemblies...*See Page 287*
- Climate Control...*See Page 244*
- General Accessories...*See Page 281*

Part No.	Enclosure			Panel	
	H	W	D	H	W
EJ443AL	4.00	4.00	3.00	N/A	N/A
EJ643AL	6.00	4.00	3.00	4.88	2.88
EJ863AL	8.00	6.00	3.50	6.75	4.88
EJ444AL	4.00	4.00	4.00	N/A	N/A
EJ644AL	6.00	4.00	4.00	4.88	2.88
EJ664AL	6.00	6.00	4.00	4.88	4.88
EJ884AL	8.00	8.00	4.00	6.75	6.88
EJ1084AL	10.00	8.00	4.00	8.75	6.88
EJ1264AL	12.00	6.00	4.00	10.75	4.88
EJ12124AL	12.00	12.00	4.00	10.75	10.88
EJ12105AL	12.00	10.00	5.00	10.75	8.88
EJ866AL	8.00	6.00	6.00	6.75	4.88
EJ1086AL	10.00	8.00	6.00	8.75	6.88
EJ10106AL	10.00	10.00	6.00	8.75	8.88
EJ12106AL	12.00	10.00	6.00	10.75	8.88
EJ12126AL	12.00	12.00	6.00	10.75	10.88
EJ14126AL	14.00	12.00	6.00	12.75	10.88
EJ16146AL	16.00	14.00	6.00	14.75	12.88
EJ12108AL	12.00	10.00	8.00	10.75	8.88
EJ14128AL	14.00	12.00	8.00	12.75	10.88
EJ16148AL	16.00	14.00	8.00	14.75	12.88
EJ161410AL	16.00	14.00	10.00	14.75	12.88

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## Type 4X Aluminum Junction Box 1414 N4 AL Series

### Lift-Off Cover with Clamps



Quick Link: [hammfg.com/1414N4AL](http://hammfg.com/1414N4AL)

### Application

- Designed for use as instrument enclosures, electric, hydraulic or pneumatic control housings, electrical junction boxes or terminal wiring enclosures.
- Provides protection where equipment may be hosed down or otherwise be very wet, or in specific applications where corrosion is a problem.

### Standards

- UL 508A Type 4, 4X, 12 and 13
- CSA Type 4, 4X, 12 and 13
- Complies with
  - NEMA Type 4, 4X, 12 and 13
  - IEC 60529, IP66

### Construction

- Formed from 0.08" Type 5052 H-32 aluminum.
- Smooth, continuously welded seams without knockouts, cutouts or holes.
- Welded brackets provide for enclosure mounting.
- Cover is secured with easily operated aluminum clamps.
- Seamless poured-in place gasket.
- All models larger than 4" x 4" include a removable 14 gauge inner panel.
- Tapped studs are provided for mounting inner panels.
- A bonding stud is provided on the door and a grounding stud is provided in the enclosure.

### Finish

- Cover and enclosure are natural unfinished aluminum.
- Removable inner panel is finished in white powder coating.

### Accessories

- Additional Inner Panels...*See Page 294*
- Swing Panel Kit...*See Page 302*
- Door Clamping Hardware...*See Page 282*
- Terminal Kit Assemblies...*See Page 302*
- Climate Control...*See Page 244*
- General Accessories...*See Page 281*

Part No.	Enclosure			Panel	
	H	W	D	H	W
1414N4ALA	4.00	4.00	3.00	-	-
1414N4ALC	6.00	4.00	3.00	4.88	2.88
1414N4ALE	6.00	6.00	4.00	4.88	4.88
1414N4ALG	8.00	6.00	3.50	6.75	4.88
1414N4ALI	10.00	8.00	4.00	8.75	6.88
1414N4ALK	12.00	10.00	5.00	10.75	8.88
1414N4ALM6	14.00	12.00	6.00	12.75	10.88
1414N4ALO6	16.00	14.00	6.00	14.75	12.88
1414N4ALM8	14.00	12.00	8.00	12.75	10.88
1414N4ALO10	16.00	14.00	10.00	14.75	12.88

Aluminum Enclosures (Type 4X)

Junction Boxes

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# Type 4X/6P Diecast Aluminum Enclosures *1590Z Series*

Watertight, Thick Wall, UL Listed



Quick Link: [hammfg.com/1590Z](http://hammfg.com/1590Z)

## Application

- Rugged, diecast aluminum alloy (tough yet easy to machine), electronic instrument enclosure.

## Standards

- Designed to meet IP68.
- All sizes except 1590Z060\*\* carry an impact rating of IK08 per IEC62262
- North American Mark of Safety - cUL & UL listed. Certified to Type 4, 4X, 6, 6P.

## Construction

- Two piece “tongue & groove” construction with a one piece silicone rubber gasket provides protection against access of dust and water.
- Four recessed stainless steel machine screws secure lid into tapped holes. Ideal for repetitive opening and closing.
- Easy to wall mount using “through box - blind hole” construction, outside of gasket protection.
- Lid screws are self captivating (lid holes are threaded with the first installation of lid screws). (NOTE: Except for 1590Z060, 1590Z061, 1590Z062, and 1590Z063)

## Finish

- Unpainted versions are a natural aluminum finish.
- Painted versions are painted inside and out with a tough powder paint. Choice of satin black or smooth grey (RAL 7001).
- Optional inner panels are unpainted galvanized steel (16 gauge).

## Accessories

- Pressure Compensation Plug...*See Page 272*
- Breather Kit...*See Page 273*
- Small Rainproof Ventilator...*See Page 272*
- Liquid-Tight, Strain Relief Cordgrips...*See Page 316*

Part Number	Color	Internal Mounting Shelf	Enclosure			Optional Inner Panel
			H	W	D (Less Lid)	
1590Z060	Natural	NO	1.98	1.77	0.95	
1590Z060BK	Black	NO	1.98	1.77	0.95	
1590Z060GY	Grey	NO	1.98	1.77	0.95	
1590Z061	Natural	NO	2.51	2.29	1.03	
1590Z061BK	Black	NO	2.51	2.29	1.03	
1590Z061GY	Grey	NO	2.51	2.29	1.03	
1590Z100	Natural	YES	2.94	3.14	1.57	1590Z100PL
1590Z100BK	Black	YES	2.94	3.14	1.57	1590Z100PL
1590Z100GY	Grey	YES	2.94	3.14	1.57	1590Z100PL
1590Z110	Natural	NO	2.94	3.14	1.57	
1590Z110BK	Black	NO	2.94	3.14	1.57	
1590Z110GY	Grey	NO	2.94	3.14	1.57	
1590Z062	Natural	NO	3.86	2.52	1.03	
1590Z062BK	Black	NO	3.86	2.52	1.03	
1590Z062GY	Grey	NO	3.86	2.52	1.03	
1590Z119	Natural	YES	4.80	4.72	2.36	1590Z119PL
1590Z119BK	Black	YES	4.80	4.72	2.36	1590Z119PL
1590Z119GY	Grey	YES	4.80	4.72	2.36	1590Z119PL
1590Z120	Natural	YES	4.90	3.15	1.75	1590Z120PL
1590Z120BK	Black	YES	4.90	3.15	1.75	1590Z120PL
1590Z120GY	Grey	YES	4.90	3.15	1.75	1590Z120PL
1590Z063	Natural	NO	5.89	2.51	1.03	

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## Type 4X/6P Diecast Aluminum Enclosures *1590Z Series*

Watertight, Thick Wall, UL Listed

Aluminum Enclosures (Type 4X) Junction Boxes

Part Number	Color	Internal Mounting Shelf	H	Enclosure		Optional Inner Panel
				W	D (Less Lid)	
1590Z063BK	Black	NO	5.89	2.51	1.03	
1590Z063GY	Grey	NO	5.89	2.51	1.03	
1590Z090	Natural	YES	5.51	5.51	2.36	1590Z090PL
1590Z090BK	Black	YES	5.51	5.51	2.36	1590Z090PL
1590Z090GY	Grey	YES	5.51	5.51	2.36	1590Z090PL
1590Z160	Natural	YES	6.30	6.30	2.76	1590Z160PL
1590Z160BK	Black	YES	6.30	6.30	2.76	1590Z160PL
1590Z160GY	Grey	YES	6.30	6.30	2.76	1590Z160PL
1590Z130	Natural	NO	6.91	3.15	1.65	
1590Z130BK	Black	NO	6.91	3.15	1.65	
1590Z130GY	Grey	NO	6.91	3.15	1.65	
1590Z135	Natural	NO	6.91	3.15	1.65	
1590Z135BK	Black	NO	6.91	3.15	1.65	
1590Z135GY	Grey	NO	6.91	3.15	1.65	
1590Z150	Natural	YES	8.70	4.74	2.39	1590Z150PL
1590Z150BK	Black	YES	8.70	4.74	2.39	1590Z150PL
1590Z150GY	Grey	YES	8.70	4.74	2.39	1590Z150PL
1590Z155	Natural	YES	8.70	4.72	2.40	1590Z150PL
1590Z155BK	Black	YES	8.70	4.72	2.40	1590Z150PL
1590Z155GY	Grey	YES	8.70	4.72	2.40	1590Z150PL
1590Z231	Natural	YES	9.06	7.87	3.63	1590Z231PL
1590Z231BK	Black	YES	9.06	7.87	3.63	1590Z231PL
1590Z231GY	Grey	YES	9.06	7.87	3.63	1590Z231PL
1590Z140	Natural	YES	9.85	3.13	1.57	1590Z140PL
1590Z140BK	Black	YES	9.85	3.13	1.57	1590Z140PL
1590Z140GY	Grey	YES	9.85	3.13	1.57	1590Z140PL
1590Z162	Natural	YES	10.24	6.30	2.75	1590Z162PL
1590Z162BK	Black	YES	10.24	6.30	2.75	1590Z162PL
1590Z162GY	Grey	YES	10.24	6.30	2.75	1590Z162PL
1590Z163	Natural	YES	10.24	6.31	5.51	1590Z163PL
1590Z163BK	Black	YES	10.24	6.31	5.51	1590Z163PL
1590Z163GY	Grey	YES	10.24	6.31	5.51	1590Z163PL
1590Z235	Natural	YES	13.07	9.13	4.36	1590Z235PL
1590Z235BK	Black	YES	13.07	9.13	4.36	1590Z235PL
1590Z235GY	Grey	YES	13.07	9.13	4.36	1590Z235PL
1590Z166	Natural	YES	14.17	6.30	2.76	1590Z166PL
1590Z166BK	Black	YES	14.17	6.30	2.76	1590Z166PL
1590Z166GY	Grey	YES	14.17	6.30	2.76	1590Z166PL
1590Z164	Natural	YES	14.23	4.72	2.38	1590Z164PL
1590Z164BK	Black	YES	14.23	4.72	2.38	1590Z164PL
1590Z164GY	Grey	YES	14.23	4.72	2.38	1590Z164PL
1590Z250	Natural	YES	15.75	9.06	6.30	1590Z250PL
1590Z250BK	Black	YES	15.75	9.06	6.30	1590Z250PL
1590Z250GY	Grey	YES	15.75	9.06	6.30	1590Z250PL

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All dimensions in inches unless specified otherwise

## Type 4X Diecast Aluminum Enclosures *R100 Series*

Watertight, Thick Wall



Quick Link: [hammfg.com/R100](http://hammfg.com/R100)

### Application

- Designed for use as electronic instrument enclosure, electrical junction box, or terminal wiring enclosure.

### Standards

- Degree of protection NEMA 4X, IP66, DIN 40050
- CSA certified, UL Listed, Type 4, for use with industrial control equipment.

### Construction

- Material - Aluminum die-cast: G Al SI 12 / DIN 1775
- Shallow lid, deep body
- Captive stainless steel lid screws. Lid screws and mounting holes outside of the gasket seal.
- Space saving single channel mounting (ie...same hole used for mounting enclosure through rear and also for the lid), provides larger interior space than dual channel enclosures.
- Enclosure holes threaded for easy installation and repetitive assembly & disassembly.
- Internal mounting shelves placed along both sides of enclosure include blind holes and grounding screws.
- Special developed external mounting feet made from zinc-die-cast. Can be turned through 90°.
- The fastening holes have engagement lugs for this purpose. (See table)
- All sizes have inner blind holes.
- Neoprene oil and petrol resistant gasket standard. (-40°C up to +80°C)
- An inner mounting panel - made of zinc-plated steel is also available (See table)

### Finish

- Textured polyester powder coat in beige RAL7032 or light grey RAL7035. (can be supplied unpainted on special order)

Junction Boxes

Aluminum Enclosures (Type 4X)

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## Type 4X Diecast Aluminum Enclosures *R100 Series*

Watertight, Thick Wall

RAL7032 Beige Part No.	RAL7035 Lt Gray Part No.	Enclosure			Foot Kit Part No.	Optional Accessories	
		H	W	D (Including Lid)		Inner Panel Part No.	Hinge Kit Part No.
R100-060-000	R100-060-035	50	65	40	N/A	N/A	N/A
R100-062-000	R100-062-035	65	65	40	N/A	R507-062-000	N/A
R100-064-000	R100-064-035	100	65	40	N/A	R507-064-000	N/A
R100-066-000	R100-066-035	150	65	40	N/A	R507-066-000	N/A
R100-080-000	R100-080-035	80	80	60	R501-002-080	R507-080-000	N/A
R100-082-000	R100-082-035	120	80	60	R501-002-080	R507-082-000	N/A
R100-084-000	R100-084-035	160	80	60	R501-002-080	R507-084-000	N/A
R100-100-000	R100-100-035	100	100	80	R501-002-100	R507-100-000	N/A
R100-102-000	R100-102-035	150	100	80	R501-002-100	R507-102-000	R510-000-000
R100-104-000	R100-104-035	200	100	80	R501-002-100	R507-104-000	R510-000-000
R100-120-000	R100-120-035	120	120	100	R501-000-011	R507-120-000	R510-000-000
R100-122-000	R100-122-035	180	120	100	R501-000-011	R507-122-000	R510-000-000
R100-124-000	R100-124-035	240	120	100	R501-000-011	R507-124-000	R510-000-000
R100-160-000	R100-160-035	160	160	100	R501-000-012	R507-160-000	R510-000-000
R100-162-000	R100-162-035	240	160	100	R501-000-012	R507-162-000	R510-000-000
R100-164-000	R100-164-035	320	160	100	R501-000-012	R507-164-000	R510-000-000
R100-166-000	R100-166-035	480	160	100	R501-000-012	R507-166-000	R510-000-000
R100-200-000	R100-200-035	200	200	120	N/A	R507-200-000	R510-000-000
R100-202-000	R100-202-035	300	200	120	N/A	R507-202-000	R510-000-000
R100-204-000	R100-204-035	400	200	120	N/A	R507-204-000	R510-000-000
R100-240-000	R100-240-035	240	240	120	N/A	R507-240-000	R510-000-000
R100-242-000	R100-242-035	360	240	120	N/A	R507-242-000	R510-000-000
R100-244-000	R100-244-035	480	240	120	N/A	R507-244-000	R510-000-000
R100-320-000	R100-320-035	320	320	120	N/A	R507-320-000	R510-000-000
R100-322-000	R100-322-035	480	320	120	N/A	R507-322-000	R510-000-000
R100-324-000	R100-324-035	640	320	120	N/A	R507-324-000	R510-000-000

Note: Table dimensions in mm.

Aluminum Enclosures (Type 4X)

Junction Boxes

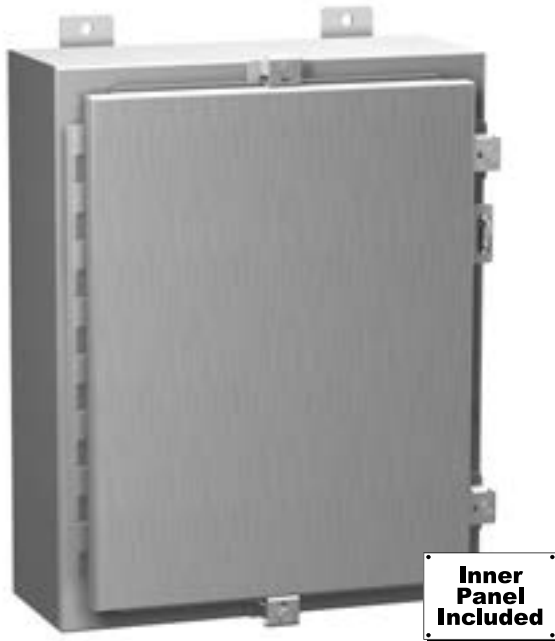
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All dimensions in inches unless specified otherwise

# Type 4X Aluminum Wallmount Enclosure *1418 N4 AL Series*

## Continuous Hinge Door with Clamps



Quick Link: [hammfg.com/1418N4AL](http://hammfg.com/1418N4AL)

### Application

- Designed for use as instrument enclosures, electric, hydraulic or pneumatic control housings, electrical junction boxes or terminal wiring enclosures.
- Provides protection where equipment may be hosed down or otherwise be very wet, or in specific applications where corrosion may be a problem.

### Standards

- UL 508A Type 4, 4X, 12 and 13
- CSA Type 4, 4X, 12 and 13
- Complies with
  - NEMA Type 4, 4X, 12 and 13
  - IEC 60529, IP66

### Construction

- Formed from 0.081" (Body) / 0.100" (Door) Type 5052 H-32 aluminum.
- Smooth, continuously welded seams without knockouts, cutouts or holes.
- Door and body stiffeners are provided in the larger enclosures for extra rigidity.
- Welded brackets provide for enclosure mounting.
- Formed lip on door and enclosure excludes flowing liquids and contaminants.
- Aluminum continuous hinge on door may be removed by pulling the aluminum hinge pin.
- Door is secured with easily operated aluminum clamps.
- Provision for padlocking.
- Seamless poured-in place gasket.
- A removable 12 gauge steel inner panel is included.
- Collar studs are provided for mounting inner panels.
- A bonding stud is provided on the door and a grounding stud is provided in the enclosure.
- A literature pocket is provided for the inside of the door.

### Finish

- Cover and enclosure are natural unfinished aluminum.
- Removable inner panel is finished in white powder coating.

### Accessories

- Additional Inner Panels...*See Page 295*
- Perforated Inner Panels...*See Page 299*
- Door Stop Kit...*See Page 320*
- Door Clamping Hardware...*See Page 282*
- Window Kits...*See Page 308*
- Lock kit...*See Page 285*
- Climate Control...*See Page 244*
- Lighting...*See Page 312*
- General Accessories...*See Page 281*

Part No.	Enclosure			Panel	
	H	W	D	H	W
1418N4ALB6	16.00	12.00	6.00	13.00	9.00
1418N4ALC6	20.00	16.00	6.00	17.00	13.00
1418N4ALE6	24.00	20.00	6.00	21.00	17.00
1418N4ALJ8	24.00	24.00	8.00	21.00	21.00
1418N4ALK8	30.00	24.00	8.00	27.00	21.00
1418N4ALM8	36.00	30.00	8.00	33.00	27.00
1418N4ALS8	48.00	36.00	8.00	45.00	33.00
1418N4ALC10	20.00	16.00	10.00	17.00	13.00
1418N4ALE10	24.00	20.00	10.00	21.00	17.00
1418N4ALK12	30.00	24.00	12.00	27.00	21.00
1418N4ALM12	36.00	30.00	12.00	33.00	27.00
1418N4ALT12	60.00	36.00	12.00	57.00	33.00

Wallmount Enclosures

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