

8146 Series Terminal Boxes

TERMINATION

STAHL



Ready-Term® 8146 Terminal Boxes Features:

- *Pre-Configured with terminals mounted*
- *Made of Fiberglass Reinforced Polyester (FRP)*
- *8 enclosure sizes with different depths*
- *For power and control circuits*
- *For I.S. circuits with blue terminals*
- *Entry hardware optional*
- *Field installation possible*

Terminal Boxes C-C25

8146 Series Terminal Boxes, FRPC1-C12
8125 Series Terminal Boxes, MetallicC14-C25

Our products are updated to the newest standard developments and technologies which makes it necessary to reserve the right to product changes without notice.



PRE-CONFIGURED FRP TERMINAL BOXES WITH PHOENIX TERMINALS



CLASSIFICATIONS of 8146/1

NEC- Class I, Zones 1 & 2 AEx e II T6/T5
 Class I, Division 2, Groups A,B,C,D
 Class II, Division 2, Groups F,G
 Class III
 Types 3,4 & 4X; IP66
 File No. E177642



CEC-Class I, Zones 1 & 2 Ex e II T6/T5
 Class I, Divisions 2, Groups A,B,C,D
 Class II, Divisions 1 & 2, Groups E,F,G
 Class III

CSA ENCLOSURES 3, 4 & 4X; IP66
 File No. LR 99480



II 2G Ex e II T6/T5, Zones 1 & 2
 II 2G Ex ia/ib IIA, IIB, IIC T6
 PTB 01 ATEX 1016



II 2D IP6X, T80°C, T95°C or T130°C
 LCIE 01 ATEX 6242

Max. Voltage 600 AC/DC

Ambient Temperature Range:

8146/1 +55°C (+131°F) Max., T5
 +40°C (+104°F) Max., T6
 -20°C (-4°F) Min.

8146/2 +75°C (+167°F) Max., T6
 -20°C (-4°F) Min.

Special Ambient Temperature Range:*

8146/1 +55°C (+131°F) Max., T5
 +40°C (+104°F) Max., T6
 -40°C (-40°F) Min.

8146/2 +75°C (+167°F) Max., T6
 -40°C (-40°F) Min.

* Consult Factory

FEATURES

The Ready-Term® 8146 Series of terminal boxes are made of impact proof fiberglass reinforced polyester resin. They offer a one-source solution to the time-consuming process of providing ready to install terminal boxes for hazardous locations. With its single part number solution, the Ready-Term® 8146 Series eliminates the inconvenience of purchasing the enclosure and individual parts. This Series is supplied with the indicated quantity of individually numbered terminals for each size of enclosure, fully certified and ready to be installed.

The FRP Ready-Term® 8146 Series are made of specially formulated impact proof glass fiber reinforced polyester which provides superior corrosion resistance while dissipating static electricity.

Ordering Information

TERM. QTY.	WIRE RANGE AWG.	TERM. SIZE mm2	MAX. AMPS. PER TERM.	CATALOG NUMBER		ENCLOSURE ORIENTATION		
				FOR POWER & CONTROL CIRCUITS	GRND. WIRE CONNECTIONS		FOR INTRINSICALLY SAFE CIRCUITS	PA WIRE CONNECTIONS
15	28-12	2.5	20	8146/1041-3DP-12015*	8	8146/2041-3DP-12015*	8	
18	28-12	2.5	20	8146/1051-3DP-12018	14	8146/2051-3DP-12018	14	
15	30-10	4	30	8146/1051-3DP-10015	14	8146/2051-3DP-10015	14	
9	26-6	10	65	8146/1051-3DP-06009	12	-	-	
24	28-12	2.5	20	8146/1061-3DP-12024	14	8146/2061-3DP-12024	14	
21	30-10	4	30	8146/1061-3DP-10021	14	8146/2061-3DP-10021	14	
9	24-6	10	65	8146/1061-3DP-06009	12	-	-	
45	28-12	2.5	20	8146/1071S-3DP-12045	14	8146/2071S-3DP-12045	14	
36	30-10	4	30	8146/1071S-3DP-10036	14	8146/2071S-3DP-10036	14	
24	24-6	10	65	8146/1071S-3DP-06024	12	-	-	

To Select Weidmuller Terminals Change P to W
 For dimensional data see page C6
 *With Phoenix terminals only

"Hazardous Location" Conduit Hubs, Mounted

HUB, NPT THREAD SIZE	CATALOG NUMBER
1/2"	8166/11-01-NE m
3/4"	8166/11-02-NE m
1"	8166/11-03-NE m
1 1/4"	8166/11-04-NE m
1 1/2"	8166/11-05-NE m
2"	8166/11-06-NE m
2 1/2"	8166/11-07-NE m
3"	8166/11-08-NE m





Ordering Information

TERM. QTY.	WIRE RANGE AWG.	TERM. SIZE mm ²	MAX. AMPS. PER TERM.	CATALOG NUMBER		CATALOG NUMBER		ENCLOSURE ORIENTATION
				FOR POWER & CONTROL CIRCUITS	GRND. WIRE CON-NECTIONS	FOR INTRINSICALLY SAFE CIRCUITS	PA WIRE CON-NECTIONS	
45	28-12	2.5	20	8146/1073S-3DP-12045	14	8146/2073S-3DP-12045	14	
36	30-10	4	30	8146/1073S-3DP-10036	14	8146/2073S-3DP-10036	14	
24	24-6	10	65	8146/1073S-3DP-06024	12	-	-	
18	22-4	16	85	8146/1073S-3DP-04018	6	-	-	
12	18-1/0	35	150	8146/1073S-3DP-1/012	6	-	-	
45	28-12	2.5	20	8146/1083-3DP-12045	36	8146/2083-3DP-12045	36	
36	30-10	4	30	8146/1083-3DP-10036	36	8146/2083-3DP-10036	36	
24	24-6	10	65	8146/1083-3DP-06024	24	-	-	
18	22-4	16	85	8146/1083-3DP-04018	6	-	-	
12	18-1/0	35	150	8146/1083-3DP-1/012	6	-	-	
90	28-12	2.5	20	8146/1083-3DP-12090	72	8146/2083-3DP-12090	72	
72	30-10	4	30	8146/1083-3DP-10072	72	8146/2083-3DP-10072	72	
48	24-6	10	65	8146/1083-3DP-06048	48	-	-	
90	28-12	2.5	20	8146/1093-3DP-12090	72	8146/2093-3DP-12090	72	
72	30-10	4	30	8146/1093-3DP-10072	72	8146/2093-3DP-10072	72	
48	24-6	10	65	8146/1093-3DP-06048	48	-	-	
36	22-4	16	85	8146/1093-3DP-04036	12	-	-	
24	18-1/0	35	150	8146/1093-3DP-1/024	12	-	-	
180	28-12	2.5	20	8146/1093-3DP-12180	72	8146/2093-3DP-12180	72	
144	30-10	4	30	8146/1093-3DP-10144	72	8146/2093-3DP-10144	72	
96	24-6	10	65	8146/1093-3DP-06096	48	-	-	

To Select Weidmuller Terminals Change P to W
For dimensional data see page C6

CLASSIFICATIONS of 8146/1

NEC- Class I, Zones 1 & 2 AEx e II T6/T5
Class I, Division 2, Groups A,B,C,D
Class II, Division 2, Groups F,G
Class III
Types 3, 4 & 4X; IP66
UL LISTED File No. E177642

CEC- Class I, Zones 1 & 2 Ex e II T6/T5
Class I, Division 2, Groups A,B,C,D
Class II, Divisions 1 & 2, Groups E,F,G
Class III
CSA ENCLOSURES 3, 4 & 4X; IP66
File No. LR 99480

II 2G Ex e II T6/T5, Zones 1 & 2
II 2G Ex ia/ib IIA, IIB, IIC T6
PTB 01 ATEX 1016

II 2D IP6X, T80°C, T95°C or T130°C
LCIE 02 ATEX 6242

Max. Voltage 600 AC/DC

Ambient Temperature Range:
See Page C1

In addition to the various North American applications, this Series is PTB certified for use in Zones 1 and 2. The design conforms to CENELEC EN 50 019 and IEC 60 079-7 and many others. Consult factory.

APPLICATION

Typical applications include junction boxes for petrochemical plants, waste treatment facilities, oil refineries and other major industrial plants. As a product with certifications recognized globally, the Ready-Term® 8146 Series is well suited for original equipment manufacturers who market throughout the world.

The 8146/1 Series of terminal boxes is intended for use on circuits designed for power and motor control applications.

The 8146/2 Series is intended for use on circuits which are intrinsically safe. These enclosures are outfitted with blue terminals to provide an indication to field personnel that the circuits are intrinsically safe and should not be confused with non-intrinsically safe circuits.

These enclosure make it necessary for the metal entry hardware to be bonded to the ground system. Use the suitable 8166/11 conduit hubs specified in the hub table on page C1.

Custom enclosures can be configured upon customer request.

The following modifications are available:

- Conduit hubs 8166 (specify)
- Cable glands (specify)
- Close-up plugs (specify)
- Flange plates (specify)
- Screw-type terminals up to 600 MCM
- Cage-clamp Terminals up to 8 AWG



The 8146 Series of FRP terminal boxes are available with factory installed conduit hubs for conduit installation or with cable glands for cable installation.

Approved and suitable for the location entry hardware can also be field installed.

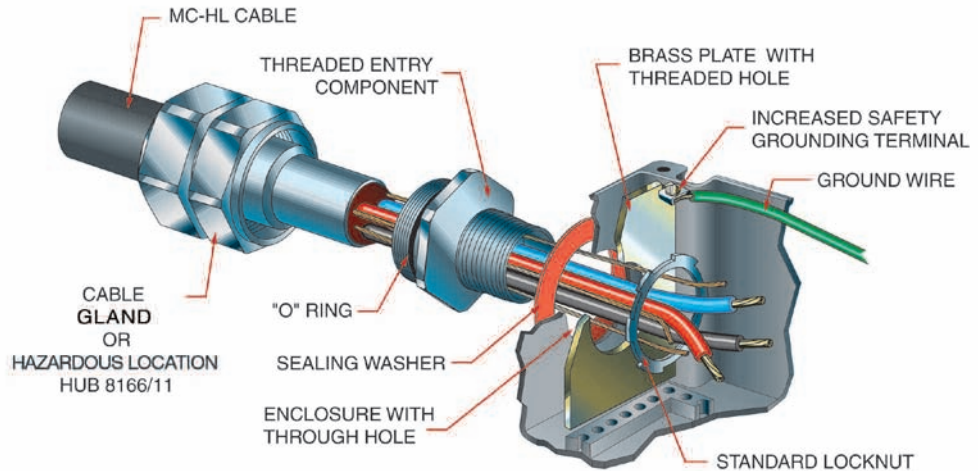
These enclosures make it necessary for the metal cable glands or conduit hubs to be bonded to the ground system. This can be accomplished by installing them to a threaded brass back plate as shown with Method 1 (shown on the upper half of this page), or with grounding nuts, according to Method 2 (shown on the lower half of this page).

For cable glands see section J.

8146 Series Terminal Boxes

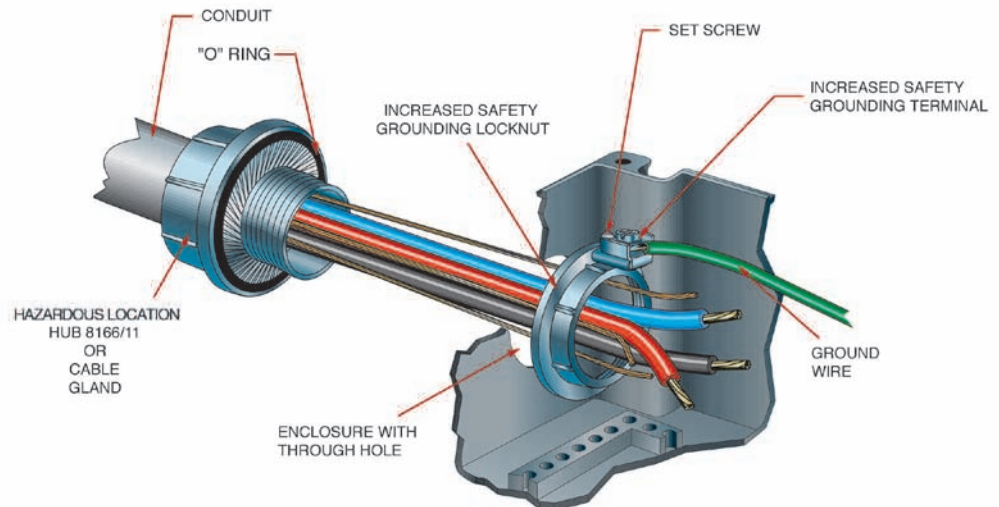
INSTALLATION OF ENTRY HARDWARE

Method 1: Installation using a hole 'through the enclosure' with a brass back plate (see page C5 with a threaded opening and "increased safety" ground terminal.



Brass Plate(s) must be connected to internal grounding system using jumper wires.

Method 2: Installation using a hole 'through the enclosure' with an "increased safety" grounding locknut instead of a brass back plate.

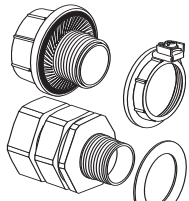


These locknuts must be bonded between each other and to the grounding system using a jumper wire.

Table for max. numbers of entry openings either installed with conduit hubs 8166/11 or cable glands (see page C4) .

CAUTION:
The max. possible number of entries which can be installed on the sides of the enclosures depends on the number of terminal columns installed. With horizontally installed columns, there are no side entries possible or only limited, depending on enclosure size. With vertically installed columns there are no bottom or top entries possible, or only limited, depending on enclosure size.

INSTALLATION OF 8166/11 CONDUIT HUBS OR CABLE GLANDS



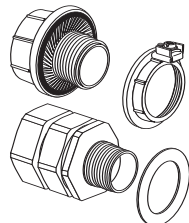
Size	8146/.031		8146/.041	
	w/o flanges		w/o flanges	
	A/B	C/D	A/B	C/D
1/2"	1	1	1	2
3/4"	1	1	1	2
1"	-	1	1	1
1-1/4"	-	-	1	1
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

Size	8146/.051/.052			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	2	3	-	2
3/4"	1	2	-	2
1"	1	2	-	1
1-1/4"	1	1	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

Size	8146/.061/.062			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	3	4	2	2
3/4"	2	3	2	2
1"	2	2	1	1
1-1/4"	1	2	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

Table for max. numbers of entry openings either installed with conduit hubs 8166/11 or cable glands (see section J).

CAUTION:
The max. possible number of entries which can be installed on the sides of the enclosures depends on the number of terminal columns installed. With horizontally installed columns, there are no side entries possible or only limited, depending on enclosure size. With vertically installed columns there are no bottom or top entries possible, or only limited, depending on enclosure size.

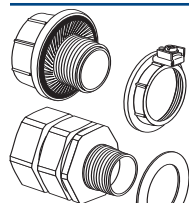


Size	8146/.071/.072			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	3	6	2	4
3/4"	2	5	2	4
1"	2	4	1	2
1-1/4"	1	3	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

Size	8146/.073/.075			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	6	12	4	11
3/4"	5	9	4	9
1"	4	8	2	4
1-1/4"	2	5	1	4
1-1/2"	2	4	1	3
2"	1	3	1	2
2-1/2"	1	2	1	2
3"	1	2	-	-

Size	8146/.S71			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	2	7	-	4
3/4"	1	6	-	4
1"	1	4	-	2
1-1/4"	1	4	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

Size	8146/.S73			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	5	14	-	11
3/4"	3	12	-	9
1"	2	8	-	4
1-1/4"	1	5	-	4
1-1/2"	1	4	-	3
2"	1	3	-	2
2-1/2"	-	3	-	2
3"	-	2	-	-

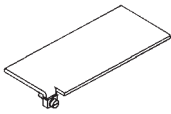


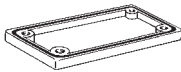



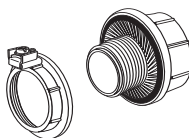
Size	8146/.081/.082			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	6	7	4	4
3/4"	5	6	4	4
1"	4	4	2	2
1-1/4"	3	4	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

Size	8146/.083/.085/.086			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	12	14	11	11
3/4"	9	12	9	9
1"	8	8	4	4
1-1/4"	5	5	4	4
1-1/2"	4	4	3	3
2"	3	3	2	2
2-1/2"	2	3	2	2
3"	2	2	-	-

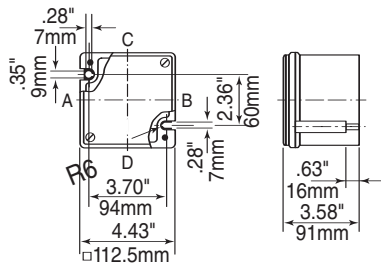
Size	8146/.091/.092			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	7	12	4	8
3/4"	6	10	4	8
1"	4	8	2	4
1-1/4"	4	7	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

Size	8146/.093/.095			
	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	14	28	11	22
3/4"	12	19	9	18
1"	8	16	4	8
1-1/4"	5	11	4	8
1-1/2"	4	7	3	6
2"	3	6	2	4
2-1/2"	3	4	2	4
3"	2	4	-	-

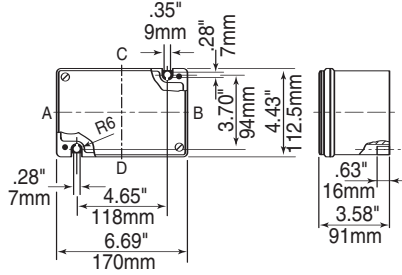
ILLUSTRATION/DESCRIPTION		CATALOG NUMBER
Brass Plates for Flange Plates  To bond metal cable glands for 8146	Flange Size	
	1	81 460 10 55 0
	2	81 460 33 55 0
	3	81 460 54 55 0
Brass Plates for Enclosures without Flange Plates	8146/•03• Side C/D	81 460 17 55 0
	8146/•04• A/B C/D	81 460 17 55 0 81 460 43 55 0
	8146/•05• A/B C/D	81 460 11 55 0 81 460 22 55 0
	8146/•06• A/B C/D	81 460 22 55 0 81 460 16 55 0
	8146/•071 A/B C/D	81 460 22 55 0 81 460 23 55 0
	8146/•073 & 8146/•075 A/B C/D	81 460 39 55 0 81 460 42 55 0
	8146/•S71 A/B C/D	81 460 11 55 0 81 460 31 55 0
	8146/•S73 A/B C/D	81 460 38 55 0 81 460 41 55 0
	8146/•081 A/B C/D	81 460 23 55 0 81 460 31 55 0
	8146/•083 & 8146/•085 & 8146/•086 A/B C/D	81 460 40 55 0 81 460 41 55 0
	8146/•091 A/B C1/D1 C2/D2	81 460 30 55 0 81 460 10 55 0 81 460 31 55 0
	8146/•093 & 8146/•095 A/B C1/D1 C2/D2	81 460 41 55 0 81 460 40 55 0 81 460 41 55 0
	Flange-enclosure	81 460 32 55 0

ILLUSTRATION/DESCRIPTION		CATALOG NUMBER	
Flange Plates Size 1  in FRP Versions 0.11" 2,8mm thick 0.23" 5,8mm thick For Mounting on: Enclosure Sides 8146/•051/•052 C/D 8146/•061/•062 A/B/C/D 8146/•071/•072 A/B/C/D 8146/•S71 C/D 8146/•08/•082 A/B/C/D 8146/•091/•092 A/B/C/D		81 460 01 49 0 81 460 04 49 0	
	Flange Plates Size 2  0.11" 2,8mm thick 0.23" 5,8mm thick For Mounting on: Enclosure Sides 8146/•073/•075 C/D 8146/•S73 C/D 8146/•083/•085/•86 A/B/C/D 8146/•093/•095 A/B/C/D		81 460 05 49 0 81 460 06 49 0
Flange Plates Size 3  0.11" 2,8mm thick 0.23" 5,8mm thick For Mounting on: Enclosure Sides 8146/•073/•075 A/B		81 460 10 49 0 81 460 11 49 0	
Coupling Frames 	Size 0	2.68" x 2.68" (68 mm x 68 mm)	81 460 03 10 0
	Size 1	5.04" x 2.68" (128 mm x 68 mm)	81 460 01 10 0
	Size 2	10.47" x 4.96" (266 mm x 126 mm)	81 460 04 10 0
	Size 3	4.96" x 4.96" (126 mm x 126 mm)	81 460 11 10 0
	Entry Hubs 		8166/11 mounted (see page C1 and C4) 8166/11 part only (see page J1)

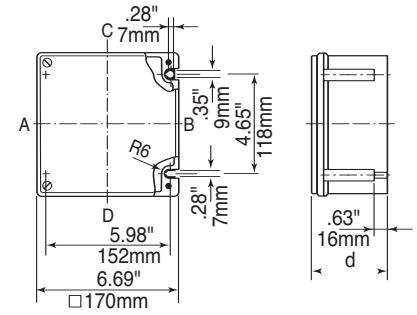
DIMENSIONS



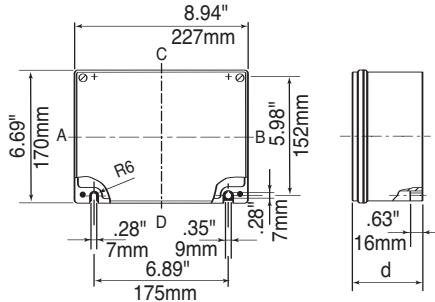
8146/031



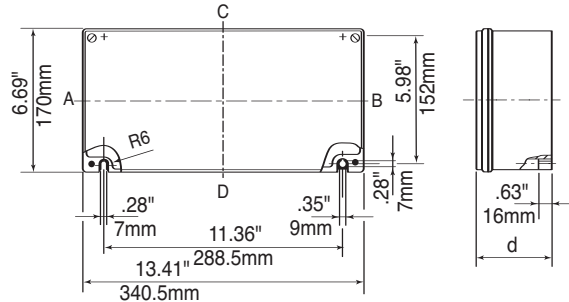
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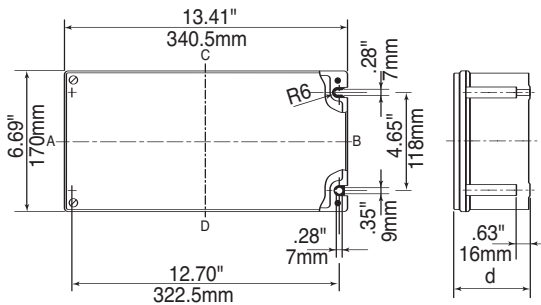
8146/05



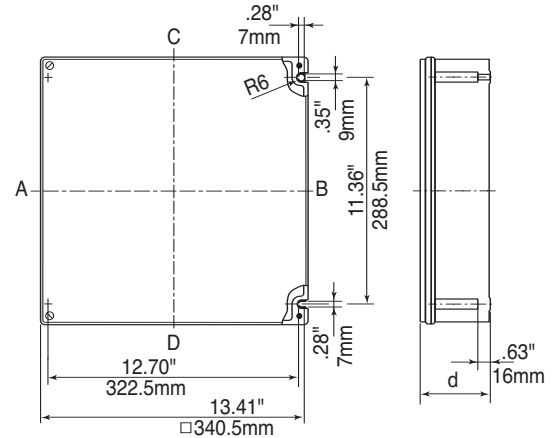
8146/06



8146/07

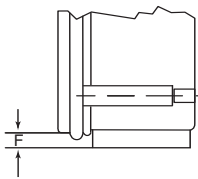


8146/S7



8146/08

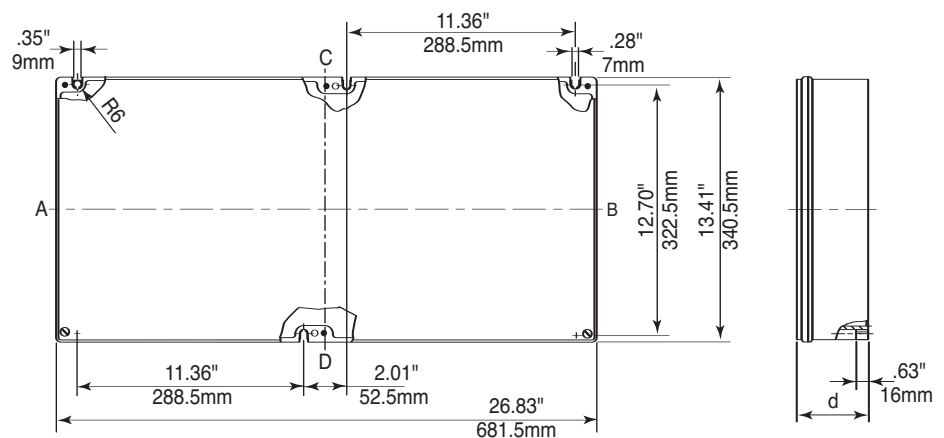
Flange option: Add to overall dimensions.



Flange Thickness	Dimension F
0.11" 2.8mm	0.27" 7mm
0.23" 5.8mm	0.39" 10mm

Available Enclosure Depth (d)						
Enclosure Sizes	1	2	3	4	5	6
	3.58"	5.16"	5.91"	6.73"	7.48"	9.06"
	91mm	131mm	150mm	171mm	190mm	230mm
8146/03	x	-	-	-	-	-
8146/04	x	-	-	-	-	-
8146/05	x	x	-	-	-	-
8146/06	x	x	-	-	-	-
8146/07	x	x	x	-	x	-
8146/S7	x	-	x	-	-	-
8146/08	x	x	x	x	x	x
8146/09	x	x	x	-	x	-

X indicates depths available.



8146/09



Electrical Capacity Tables

(only applicable for Class I, Zone 1)

In Class I, Zone 1 hazardous (classified) areas, heat produced by current in the wire inside an enclosure is a concern. Therefore, the continuous current of each current carrying conductor, the quantity and the size of the conductors inside a terminal enclosure needs to be limited. For each enclosure size, there is one table which shows the permissible values for that particular terminal enclosure.

How to use the electrical capacity tables:

- Determine the enclosure type you are dealing with.
- Reference the applicable electrical capacity table printed on pages C8-C12.



In the white area of the table the permitted numbers of current carrying conductors inside the enclosure are indicated (in and out counts two wires) depending on wire size and continuous current.



In the green shaded area of the table additional conductors/terminals are permitted up to the space limit of the enclosure. (see pages C1 & C2)



In the area with red diagonal lines no conductors/terminals are permitted.

Jumper links and ground wires can be neglected, in calculating the number of wires. These can be added whenever necessary.

Terminal Data

Terminal Type Phoenix	solid/stranded wire range	Max. voltage, V	Max. Amps	Torque lb-in
UT 2.5	26-12	600	20	5.3-7
UT 4	26-10	600	30	5.3-7
UT 6	24-8	600	50	13.3-16
UT 10	20-6	600	65	13.3-16
UT 16	16-4	600	85	22-26.5
UT 35	14-1/0	600	150	28-32.7
Terminal Type Weidmueller				
WDU 2.5	22-12	600	25	4.5-7.1
WDU 4	22-10	600	35	9
WDU 6	20-8	600	45	14.2
WDU 10	16-6	600	65	20.4
WDU 16	14-6	600	70	35
WDU 35	12-2	600	115	51
WDU 70	6-2/0	600	175	87
WDU 120	2-250	600	225	130
WFF 185	8-500	600	380	177
WFF 300	6-600	600	500	354
Terminal Type Wago				
281-691	28-12	600	20	N/A
281-991	28-12	600	20	N/A
282-691	24-10	600	30	N/A
283-691	24-6	600	65	N/A
284-691	24-8	600	50	N/A

EXAMPLE:

Enclosure type: 8146/1061-3DP-10021 (see page C1).

The maximum physical quantity of terminals 30-10 AWG for this enclosure is 21.

Reference the table 8146/1061 on page C9, you will find that 18 wires 10 AWG with 30 Amps continuous current is the thermal limit of this enclosure.

Conclusion: To terminate 18 wires, 9 terminals are needed, terminating two wires per terminal only. The remaining 12 terminals (21 - 9 = 12) can be used for low amperage circuits in the green shaded area of the table. Jumper links and ground wires can be neglected.

Mixed circuits of different wire sizes and current values are possible by applying the table values proportionally

i.e. enclosure table 8146/1061.

Wire Size AWG	Current Amps	Number of Current Carrying Conductors		Proportion
		Permissible	Actual	
14	15	24	12	50%
12	20	24	12	50%

100% Max.

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Enclosure 8146/1031				
Current Amps	Wire size AWG			
	16	14	12	10
5				
10	27	53		
15	/	20	39	
20	/	/	19	43
25	/	/	/	22
30	/	/	/	14

Enclosure 8146/1041				
Current Amps	Wire size AWG			
	16	14	12	10
5				
10	28	56		
15	/	21	42	
20	/	/	20	46
25	/	/	/	23
30	/	/	/	15

Enclosure 8146/1241				
Current Amps	Wire size AWG			
	16	14	12	10
5				
10	28	57		
15	/	21	42	
20	/	/	21	47
25	/	/	/	24
30	/	/	/	15

Enclosure 8146/1242				
Current Amps	Wire size AWG			
	16	14	12	10
5				
10	35	70		
15	/	26	52	
20	/	/	26	58
25	/	/	/	30
30	/	/	/	18

Enclosure 8146/1051							
Current Amps	Wire size AWG						
	16	14	12	10	8	6	4
5							
10	32	63					
15	/	24	47				
20	/	/	23	52			
25	/	/	/	27			
30	/	/	/	/	17	37	
35	/	/	/	/	/	24	
40	/	/	/	/	/	/	43
45	/	/	/	/	/	/	27
50	/	/	/	/	/	/	20
60	/	/	/	/	/	/	30
65	/	/	/	/	/	/	22
70	/	/	/	/	/	/	17

Enclosure 8146/1052							
Current Amps	Wire size AWG						
	16	14	12	10	8	6	4
5							
10	39	78					
15	/	29	58				
20	/	/	28	64			
25	/	/	/	33			
30	/	/	/	/	20	46	
35	/	/	/	/	/	29	
40	/	/	/	/	/	/	53
45	/	/	/	/	/	/	33
50	/	/	/	/	/	/	24
60	/	/	/	/	/	/	37
65	/	/	/	/	/	/	27
70	/	/	/	/	/	/	21

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Enclosure 8146/1061							
Current Amps	Wire size AWG						
	16	14	12	10	8	6	4
5							
10	34	67					
15		24	50				
20			24	55			
25				28			
30				18	40		
35					25		
40					17	46	
45						29	
50						21	
60							31
65							23
70							18

Enclosure 8146/1062							
Current Amps	Wire size AWG						
	16	14	12	10	8	6	4
5							
10	41	81					
15		31	61				
20			30	67			
25				34			
30				21	48		
35					30		
40					21	56	
45						35	
50						25	
60							38
65							28
70							22

Enclosures 8146/1071 and 8146/1S71										
Current Amps	Wire size AWG									
	16	14	12	10	8	6	4	3	2	1
5										
10	35	70								
15		26	52							
20			25	57						
25				29						
30				18	41					
35					26					
40					18	48				
45						30				
50						22				
60							33			
65							24	61		
70							19	34		
80								20	41	
85								16	29	
90								13	23	
100								9	15	29
110									11	19
115									9	16
125										11

Enclosures 8146/1072 and 8146/1S72										
Current Amps	Wire size AWG									
	16	14	12	10	8	6	4	3	2	1
5										
10	42	83								
15		32	62							
20			31	69						
25				35						
30				22	49					
35					31					
40					21	57				
45						36				
50						26				
60							39			
65							29	73		
70							23	41		
80								24	49	
85								19	35	
90								16	27	
100								10	18	35
110									13	23
115									11	19
125										14

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Enclosure 8146/1073 and 8146/1S73												
Current Amps	Wire size AWG											
	16	14	12	10	8	6	4	3	2	1	1/0	2/0
5												
10	45	90										
15	34	67										
20	33	74										
25	38											
30		24	53									
35			34									
40			23	62								
45				39								
50				28								
60					42							
65					31	79						
70					24	44						
80						26	53					
85						21	37					
90							17	29				
100							11	20	37			
110								14	25	83		
115								11	21	44		
125									15	28		
150										13	25	
175											12	

Enclosures 8146/1075 and 8146/1S75															
Current Amps	Wire size AWG/MCM														
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250
5															
10	52	104													
15	39	77													
20	38	85													
25	44														
30		27	61												
35			39												
40			27	71											
45				45											
50				32											
60					49										
65					36	91									
70					28	50									
80						30	61								
85						24	43								
90						20	34								
100						13	23	43							
110							16	28	95						
115							13	24	50						
125								17	32						
150									15	28					
175										14	29				
200												15	35		
225													18	35	

Enclosure 8146/1081											
Current Amps	Wire size AWG										
	16	14	12	10	8	6	4	3	2	1	1/0
5											
10	48	94									
15	36	70									
20	35	77									
25	40										
30		25	56								
35			35								
40			24	65							
45				40							
50				29							
60					44						
65					33	82					
70					26	46					
80						27	56				
85						22	39				
90						18	31				
100						12	21	39			
110							14	26	87		
115							12	22	46		
125								16	29		
150									13		

Enclosure 8146/1082											
Current Amps	Wire size AWG										
	16	14	12	10	8	6	4	3	2	1	1/0
5											
10	55	109									
15	41	81									
20	40	89									
25	46										
30		29	64								
35			41								
40			28	75							
45				47							
50				34							
60					51						
65					38	95					
70					30	53					
80						31	64				
85						25	45				
90						21	36				
100						14	24	45			
110							17	30	100		
115							14	25	53		
125								18	33		
150									15		

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Enclosure 8146/1083																								
Current Amps	Wire size AWG/MCM																							
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250									
5																								
10	58	115																						
15		44	86																					
20			42	95																				
25				49																				
30					31	68																		
35						43																		
40							30	79																
45								50																
50									36															
60										54														
65											40	101												
70												32	56											
80													33	68										
85														27	48									
90															22	38								
100																14	26	48						
110																	18	32	106					
115																		15	27	56				
125																			19	36				
150																				16	32			
175																					16	33		
200																						17	39	
225																							20	39

Enclosures 8146/1084																								
Current Amps	Wire size AWG/MCM																							
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250									
5																								
10	62	123																						
15		47	92																					
20			45	101																				
25				52																				
30					33	73																		
35						46																		
40							32	85																
45								53																
50									38															
60										58														
65											43	107												
70												34	60											
80													35	73										
85														29	51									
90															23	40								
100																15	27	51						
110																	19	34	113					
115																		16	28	60				
125																			20	38				
150																				18	34			
175																					17	35		
200																						18	41	
225																							22	42

Enclosure 8146/1085																								
Current Amps	Wire size AWG/MCM																							
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250									
5																								
10	66	130																						
15		49	97																					
20			48	107																				
25				55																				
30					34	77																		
35						49																		
40							34	89																
45								56																
50									40															
60										61														
65											45	113												
70												35	63											
80													37	77										
85														30	54									
90															25	43								
100																16	29	54						
110																	20	36	120					
115																		17	30	63				
125																			22	40				
150																				19	36			
175																					18	37		
200																						19	43	
225																							23	44

Enclosure 8146/1086																								
Current Amps	Wire size AWG/MCM																							
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250									
5																								
10	73	144																						
15		55	108																					
20			53	119																				
25				61																				
30					38	86																		
35						54																		
40							37	99																
45								62																
50									45															
60										68														
65											51	126												
70												39	70											
80													42	85										
85														34	60									
90															28	47								
100																18	32	60						
110																	22	40	133					
115																		19	33	70				
125																			24	45				
150																				21	40			
175																					20	41		
200																						22	48	
225																							25	49

Enclosure 8146/1091																						
Current Amps	Wire size AWG																					
	16	14	12	10	8	6	4	3	2	1	1/0											
5																						
10	55	109																				
15		41	81																			
20			40	90																		
25				46																		
30					29	64																
35						41																
40							28	75														
45								47														
50									34													
60										51												
65											38	95										
70												30	53									
80													31	64								
85														25	45							
90															21	36						
100																14	24	45				
110																	17	30	100			
115																		14	25	53		
125																			18	33		
150																						15

Enclosure 8146/1092																		
Current Amps	Wire size AWG																	
	16	14	12	10	8	6	4	3	2	1	1/0							
5																		
10	62	122																
15		46	91															
20			45	101														
25				52														
30					32	73												
35						46												
40							32	84										
45								53										
50									38									
60										58								
65											43	107						
70												33	60					
80													35	72				
85														29	51			
90															23	40		
100																15	27	51
110																		

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Enclosure 8146/1093																		
Current Amps	Wire size AWG/MCM																	
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250	300	400	600
5																		
10	65	129																
15	49	96																
20		47	106															
25			55															
30			34	77														
35				48														
40				33	89													
45					56													
50					40													
60						61												
65						45	113											
70						35	63											
80							37	76										
85							30	54										
90							25	42										
100							16	29	54									
110								20	35	119								
115								17	30	63								
125									21	40								
150									18	36								
175										18	36							
200											19	43						
225												23	44					
250													23	58				
300														17				
350															21			
380																36		
450																	26	

Enclosure 8146/1095																		
Current Amps	Wire size AWG/MCM																	
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250	300	400	600
5																		
10	72	143																
15	54	106																
20		53	118															
25			61															
30				38	85													
35					54													
40					37	98												
45						61												
50						45												
60							67											
65							50	125										
70							39	69										
80								41	84									
85								33	60									
90								27	47									
100								18	32	59								
110									22	39	131							
115									18	33	69							
125										24	44							
150											20	39						
175												20	40					
200													21	48				
225														25	48			
250															26	64		
300																19		
350																	23	
380																		40
400																		27
450																		29

STAHL

Ready-Term® 8125 Terminal Boxes Features:

- *Pre-Configured with terminals mounted*
- *Materials:
Stainless Steel or
Carbon Steel*
- *Six enclosure sizes with
different depths*
- *For power and control
circuits*
- *For I.S. circuits with
blue terminals*
- *Entry hardware
optional*
- *Field installation
possible*



PRE-CONFIGURED STAINLESS AND CARBON STEEL TERMINAL BOXES
WITH PHOENIX TERMINALS



Ordering Information

TERM. QTY.	WIRE RANGE AWG.	TERM. SIZE mm2	MAX. AMPS. PER TERM.	CATALOG NUMBER		CATALOG NUMBER		ENCLOSURE ORIENTATION
				FOR POWER & CONTROL CIRCUITS	GRND. WIRE CON-NECTIONS	FOR INTRINSICALLY SAFE CIRCUITS	PA WIRE CON-NECTIONS	
15	28-12	2.5	20	8125/1041-2DP-12015*	8	8125/2041-2DP-12015*	8	
18	28-12	2.5	20	8125/1051-2DP-12018	14	8125/2051-2DP-12018	14	
15	30-10	4	30	8125/1051-2DP-10015	14	8125/2051-2DP-10015	14	
9	24-6	10	65	8125/1051-2DP-06009	12	-	-	
24	28-12	2.5	20	8125/1061-2DP-12024	14	8125/2061-2DP-12024	14	
21	30-10	4	30	8125/1061-2DP-10021	14	8125/2061-2DP-10021	14	
9	24-6	10	65	8125/1061-2DP-06009	12	-	-	
45	28-12	2.5	20	8125/1071-2DP-12045	14	8125/2071-2DP-12045	14	
36	30-10	4	30	8125/1071-2DP-10036	14	8125/2071-2DP-10036	14	
24	24-6	10	65	8125/1071-2DP-06024	12	-	-	

To Select Painted Steel Enclosures change 2 to 1
To Select Weidmuller Terminals change P to W
For dimensional data see page C20
*With Phoenix terminals only

CLASSIFICATIONS OF 8125/1
NEC- Class I, Zones 1 & 2 AEx e II T6/T5
Class I, Division 2, Groups A,B,C,D
Class II, Division 2, Groups F,G
Class III

Types:

- stainless steel version
3, 4 & 4X; IP66,
- carbon steel version, painted
3 & 4; IP66,

File No. E177642

CEC- Class I, Zones 1 & 2 Ex e II T6/T5
Class I, Division 2, Groups A,B,C,D
Class II, Divisions 1 & 2, Groups E,F,G
Class III

CSA ENCLOSURES

- stainless steel version
Types 3, 4 & 4X; IP66
- carbon steel version, painted
Types 3 & 4; IP66

File No. LR 99480

II 2G Ex e II T6/T5, Zones 1 & 2
II 2G Ex ia/ib IIA, IIB, IIC T6
PTB 00 ATEX 3116

II 2D IP6X, T80°C, T95°C or T130°C
LCIE 03 ATEX 6291

Max. Voltage 600 AC/DC

Ambient Temperature Range:

- +40°C (+104°F) Max. T6
- +55°C (+131°F) Max. T5
- 20°C (-4°F) Min.

Special Ambient Temperature Range:*

- +60°C (+140°F) Max.
- 50°C (-58°F) Min.
- * Consult Factory

FEATURES

The Ready-Term® 8125 Series of terminal boxes are made of 316 stainless sheet steel or painted carbon steel. They offer a one-source solution to the time-consuming process of providing ready to install terminal boxes for hazardous locations. With its single part number solution, the Ready-Term® 8125 Series eliminates the inconvenience of purchasing the enclosure and individual parts. This Series is supplied with the indicated quantity of individually numbered terminals for each size of enclosure, fully certified and ready to be installed.

"Hazardous Location" Conduit Hubs, Mounted

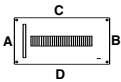
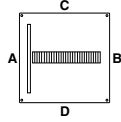
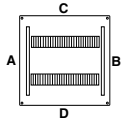
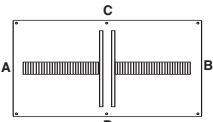
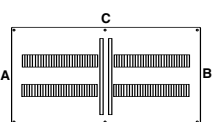
HUB, NPT THREAD SIZE	CATALOG NUMBER
1/2"	8166/11-01-NE m
3/4"	8166/11-02-NE m
1"	8166/11-03-NE m
1 1/4"	8166/11-04-NE m
1 1/2"	8166/11-05-NE m
2"	8166/11-06-NE m
2 1/2"	8166/11-07-NE m
3"	8166/11-08-NE m



Ready-Term® 8125 Terminal Boxes

PRE-CONFIGURED STAINLESS AND CARBON STEEL TERMINAL BOXES
WITH PHOENIX TERMINALS

Ordering Information

TERM. QTY.	WIRE RANGE AWG.	TERM. SIZE mm ²	MAX. AMPS. PER TERM.	CATALOG NUMBER		CATALOG NUMBER		ENCLOSURE ORIENTATION
				FOR POWER & CONTROL CIRCUITS	GRND. WIRE CON-NECTIONS	FOR INTRINSICALLY SAFE CIRCUITS	PA WIRE CON-NECTIONS	
45	28-12	2.5	20	8125/1073-2DP-12045	14	8125/2073-2DP-12045	14	
36	30-10	4	30	8125/1073-2DP-10036	14	8125/2073-2DP-10036	14	
24	24-6	10	65	8125/1073-2DP-06024	12	-	-	
18	22-4	16	85	8125/1073-2DP-04018	6	-	-	
12	18-1/0	35	150	8125/1073-2DP-1/012	6	-	-	
45	28-12	2.5	20	8125/1083-2DP-12045	36	8125/2083-2DP-12045	36	
36	30-10	4	30	8125/1083-2DP-10036	36	8125/2083-2DP-10036	36	
24	24-6	10	65	8125/1083-2DP-06024	24	-	-	
18	22-4	16	85	8125/1083-2DP-04018	6	-	-	
12	18-1/0	35	150	8125/1083-2DP-1/012	6	-	-	
90	28-12	2.5	20	8125/1083-2DP-12090	72	8125/2083-2DP-12090	72	
72	30-10	4	30	8125/1083-2DP-10072	72	8125/2083-2DP-10072	72	
48	24-6	10	65	8125/1083-2DP-06048	48	-	-	
90	28-12	2.5	20	8125/1093-2DP-12090	72	8125/2093-2DP-12090	72	
72	30-10	4	30	8125/1093-2DP-10072	72	8125/2093-2DP-10072	72	
48	24-6	10	65	8125/1093-2DP-06048	48	-	-	
36	22-4	16	85	8125/1093-2DP-04036	12	-	-	
24	18-1/0	35	150	8125/1093-2DP-1/024	12	-	-	
180	28-12	2.5	20	8125/1093-2DP-12180	72	8125/2093-2DP-12180	72	
144	30-10	4	30	8125/1093-2DP-10144	72	8125/2093-2DP-10144	72	
96	24-6	10	65	8125/1093-2DP-06096	48	-	-	

To Select Painted Steel Enclosures change 2 to 1
To Select Weidmuller Terminals change P to W
For dimensional data see page C20

TERMINATION



CLASSIFICATIONS of 8125/1

NEC- Class I, Zones 1 & 2 AEx e II T6/T5
Class I, Division 2, Groups A,B,C,D
Class II, Division 2, Groups F,G
Class III

Types: See Page C15
File No. E177642



CEC- Class I, Zones 1 & 2 Ex e II T6/T5
Class I, Division 2, Groups A,B,C,D
Class II, Divisions 1 & 2, Groups E,F,G
Class III

CSA ENCLOSURES: See Page C15
File No. LR 99480



II 2G Ex e II T6/T5, Zones 1 & 2
II 2G Ex ia/ib IIA, IIB, IIC T6

PTB 00 ATEX 3116

Dust approval, see page C15

Max. Voltage 600 AC/DC

Ambient Temperature Range:
See Page C15

In addition to the various North American applications, this Series is PTB certified for use in Zones 1 and 2. The design conforms to CENELEC EN 50 019 and IEC 60 079-7 and many others. Consult factory.

APPLICATION

Typical applications include junction boxes for petrochemical plants, waste treatment facilities, oil refineries and other major industrial plants. As a product with certifications recognized globally, the Ready-Term® 8125 Series is well suited for original equipment manufacturers who market throughout the world.

The 8125/1 Series of terminal boxes is intended for use on circuits designed for power and motor control applications.

The 8125/2 Series is intended for use with intrinsically safe circuits. These enclosures are outfitted with blue terminals to provide an indication to field personnel that the circuits are intrinsically safe and should not be confused with non-intrinsically safe circuits.

These enclosures make it necessary for the metal entry hardware to be bonded to the ground system. Use the suitable 8166/11 conduit hubs specified in the hub table on page C15.

Custom enclosures can be configured upon request.

The following modifications are available:

- Stainless Steel hinges for right or left side (specify)
- Conduit hubs 8166/11 (specify)
- Cable glands (specify)
- Close-up plugs (specify)
- Flange plates (specify)
- Screw-Type Terminals up to 600MCM
- Cage Clamp Terminals up to 8AWG



INNOVATIVE EXPLOSION PROTECTION by R. STAHL 1-800-782-4357



The 8125 Series of metallic terminal boxes are available with factory installed conduit hubs for conduit installation or with cable glands for cable installation.

Approved and suitable for the location entry hardware can also be field installed.

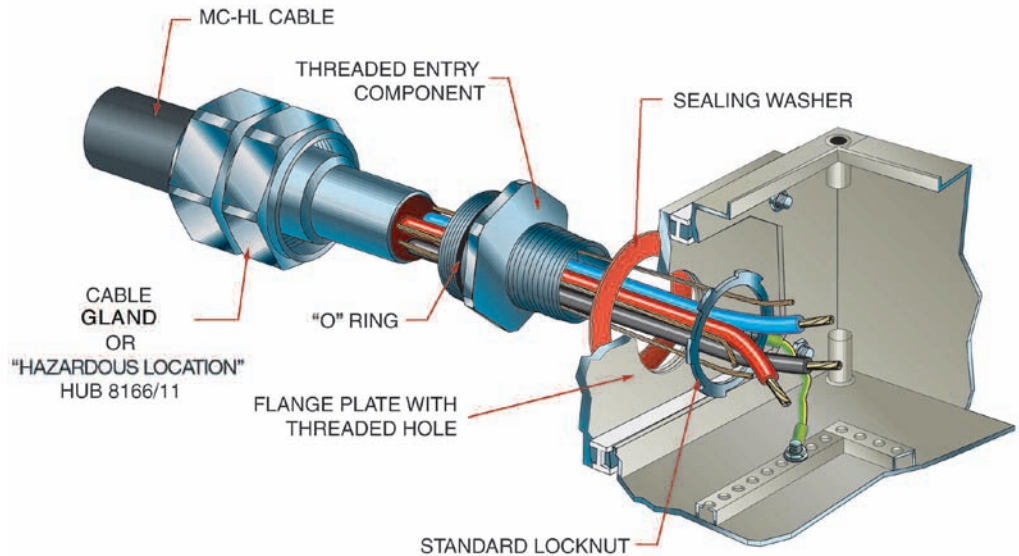
These enclosures make it necessary for the metal cable glands or conduit hubs to be bonded to the ground system. This can be accomplished by installing enclosures with flange plates according to Method 1 (shown on the upper half of this page), or enclosures without flange plates according to Method 2 (shown on the lower half of this page).

For cable glands see section J.

8125 Series Terminal Boxes

INSTALLATION OF ENTRY HARDWARE

Method 1: Enclosures with flange plates using threaded openings through the flange plate and standard locknuts. Flange plates must be connected to the internal grounding system using jumper wires.



Method 2: Enclosures without flange plates using a hole 'through the enclosure' with an 'increased safety' grounding locknut.

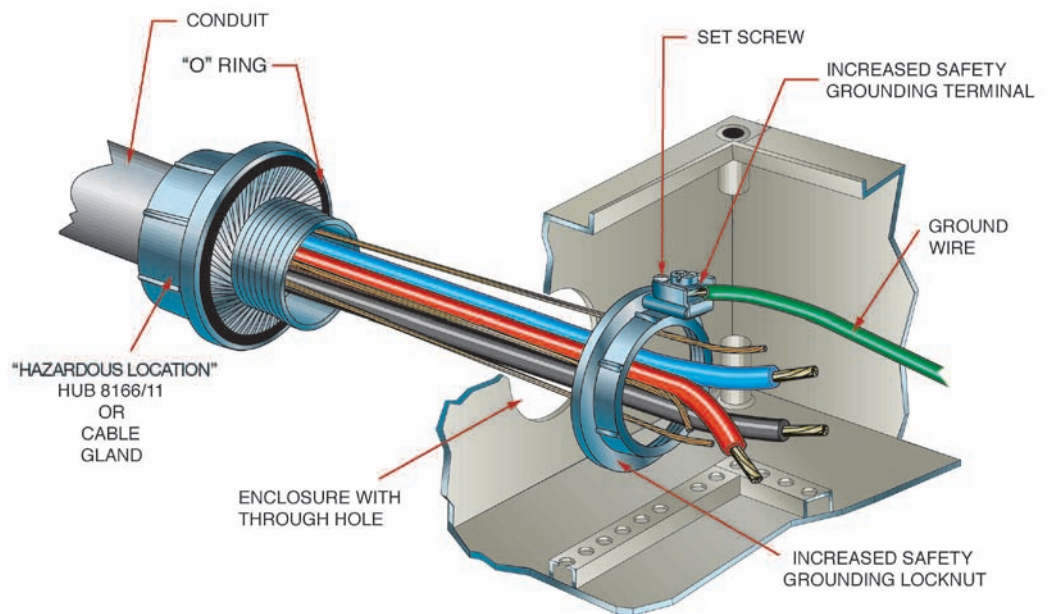


Table for max. numbers of entry openings either installed with conduit hubs 8166/11 or cable glands (see page C18).

CAUTION:

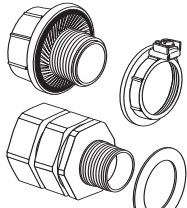
The max. possible number of entries which can be installed on the sides of the enclosures depends on the number of terminal columns installed. With horizontally installed columns, there are no side entries possible or only limited, depending on enclosure size. With vertically installed columns there are no bottom or top entries possible, or only limited, depending on enclosure size.

These locknuts must be bonded between each other and to the grounding system using a jumper wire.

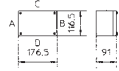
After the entry hardware is installed, connect the appropriate conduit or cable.



INSTALLATION OF 8166/11 CONDUIT HUBS OR TMCW CABLE GLANDS

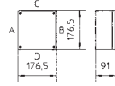


8125/.041



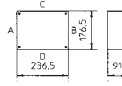
Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	2	3	-	2
3/4"	1	3	-	2
1"	1	2	-	-
1-1/4"	1	2	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

8125/.051



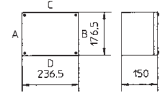
Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	3	3	2	2
3/4"	3	3	2	2
1"	2	2	-	-
1-1/4"	2	2	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

8125/.061

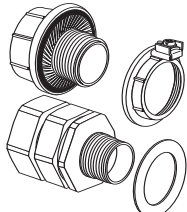


Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	3	5	2	2
3/4"	3	4	2	2
1"	2	3	-	-
1-1/4"	2	2	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

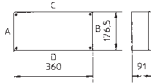
8125/.063



Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	6	10	4	4
3/4"	5	8	4	4
1"	4	6	2	2
1-1/4"	3	4	1	1
1-1/2"	2	3	1	1
2"	1	2	1	1
2-1/2"	1	2	1	1
3"	1	1	-	-

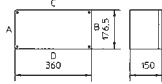


8125/.071



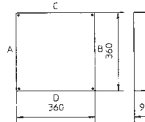
Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	3	8	2	4
3/4"	3	6	2	4
1"	2	5	-	-
1-1/4"	2	4	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

8125/.073



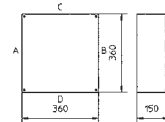
Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	6	16	4	10
3/4"	5	12	4	8
1"	4	10	2	4
1-1/4"	3	7	1	4
1-1/2"	2	5	1	3
2"	1	4	1	2
2-1/2"	1	3	1	2
3"	1	2	-	-

8125/.081

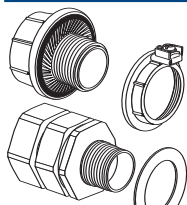


Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	8	8	4	4
3/4"	6	6	4	4
1"	5	5	-	-
1-1/4"	4	4	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

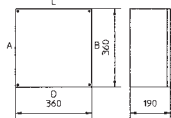
8125/.083



Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	16	16	10	10
3/4"	12	12	8	8
1"	10	10	4	4
1-1/4"	7	7	4	4
1-1/2"	5	5	3	3
2"	4	4	2	2
2-1/2"	3	3	2	2
3"	2	2	-	-

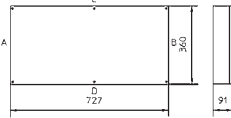


8125/.085



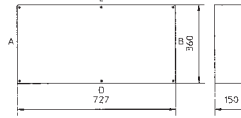
Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	23	23	10	10
3/4"	17	17	8	8
1"	12	12	4	4
1-1/4"	9	9	4	4
1-1/2"	8	8	3	3
2"	5	5	2	2
2-1/2"	3	3	2	2
3"	3	3	-	-

8125/.091



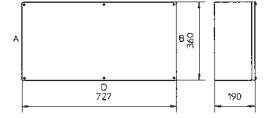
Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	8	17	4	8
3/4"	6	14	4	8
1"	5	10	-	-
1-1/4"	4	8	-	-
1-1/2"	-	-	-	-
2"	-	-	-	-
2-1/2"	-	-	-	-
3"	-	-	-	-

8125/.093



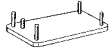
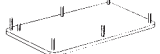


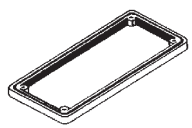
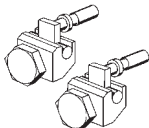
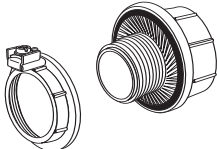
Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	16	34	10	20
3/4"	12	28	8	16
1"	10	20	4	8
1-1/4"	7	12	4	8
1-1/2"	5	10	3	6
2"	4	8	2	4
2-1/2"	3	6	2	4
3"	2	5	-	-

8125/.095



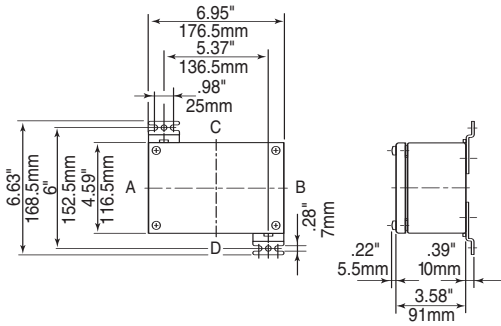
Size	w/o flanges		with flanges	
	A/B	C/D	A/B	C/D
1/2"	23	46	10	20
3/4"	17	33	8	16
1"	12	23	4	8
1-1/4"	9	20	4	8
1-1/2"	8	16	3	6
2"	5	11	2	4
2-1/2"	3	7	2	4
3"	3	6	-	-

PARTS AND ACCESSORIES

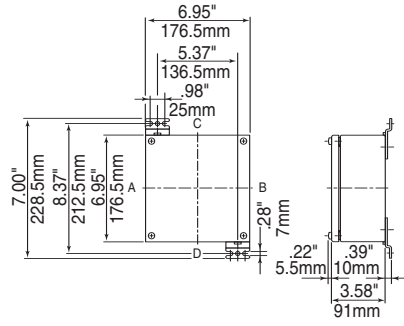
DESIGNATION	ILLUSTRATION	DESCRIPTION	CATALOG NUMBER
Flange Plate Size 1		5" x 2.7" x 0.2" (128 x 68 x 5 mm) carbon steel 316 stainless steel Can be fitted in Enclosures Sides 8125/•051 A/B/C/D 8125/•061 A/B/C/D 8125/•071 A/B/C/D 8125/•S71 C/D 8125/•081 A/B/C/D	81 250 01 49 0 81 259 02 49 0
Flange Plate Size 2		10.5" x 5" x 0.2" (266 x 128 x 5 mm) carbon steel 316 stainless steel Can be fitted in Enclosures Sides 8125/•063 C/D 8125/•073 C/D 8125/•083;/•085 A/B/C/D 8125/•093;/•095 A/B/C/D	81 250 02 49 0 81 259 04 49 0
Flange Plate Size 3		5" x 5" x 0.2" (126 x 126 x 5 mm) carbon steel 316 stainless steel Can be fitted in Enclosures Sides 8125/•073 A/B	81 250 03 49 0 81 259 06 49 0
Flange Plate Size 4		13.86" x 6.1" x 0.2" (352 x 155 x 5 mm) carbon steel 316 stainless steel Can be fitted in Enclosures Sides 8125/•085 A/B/C/D 8125/•095 A/B/C/D	81 250 04 49 0 81 259 08 49 0
Coupling Frames		Frame Sizes 0 2.68" x 2.68" (68 mm x 68 mm) 1 5.04" x 2.68" (128 mm x 68 mm) 2 10.47" x 4.96" (266 mm x 126 mm) 3 4.96" x 4.96" (126 mm x 126 mm) 4 13.86" x 6.1" (352 mm x 155 mm)	81 460 03 10 0 81 460 01 10 0 81 460 04 10 0 81 460 11 10 0 81 250 04 10 0
Cover Hinges		8125 for retrofitting to enclosure Kit consists of: 2 hinges 3 hinges	81 258 02 29 0 81 258 03 29 0
Entry Hubs			8166/11 mounted (see page C15 and C18) 8166/11 part only (see page J1)



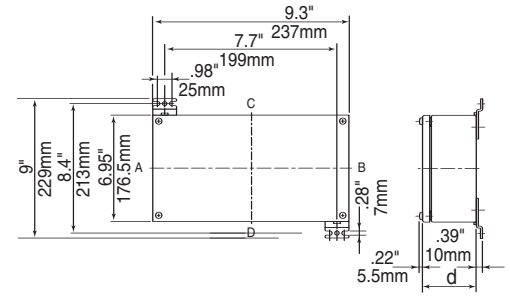
DIMENSIONS



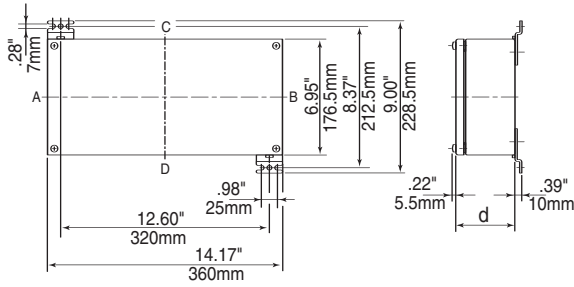
8125/041



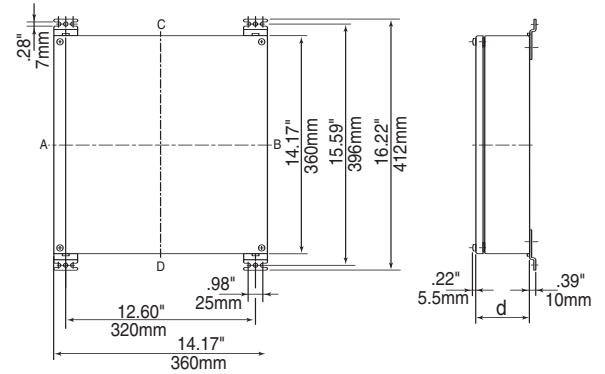
8125/051



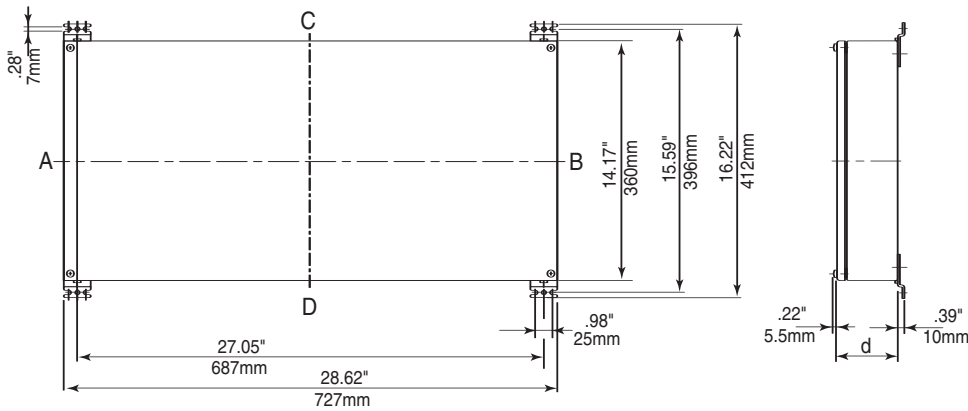
8125/060



8125/070



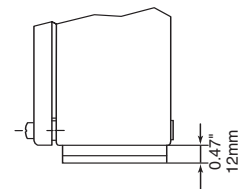
8125/080



8125/090

Available Enclosure Depth (d)				
Enclosure Sizes	1	3	5	6
	3.58" 91mm	5.91" 150mm	7.48" 190mm	9.06" 230mm
8125/040	x	-	-	-
8125/050	x	-	-	-
8125/060	x	x	-	-
8125/070	x	x	-	-
8125/080	x	x	x	x
8125/090	x	x	x	-

Flange option:
Add to overall
dimensions.





Electrical Capacity Tables

(only applicable for Class I, Zone 1)

In Class I, Zone 1 hazardous (classified) areas, heat produced by current in the wire inside an enclosure is a concern. Therefore, the continuous current of each current carrying conductor, the quantity and the size of the conductors inside a terminal enclosure needs to be limited. For each enclosure size, there is one table which shows the permissible values for that particular terminal enclosure.

How to use the electrical capacity tables:

- Determine the enclosure type you are dealing with.
- Reference the applicable electrical capacity table printed on pages C22-C25.



In the white area of the table the permitted numbers of current carrying conductors inside the enclosure are indicated (in and out counts two wires) depending on wire size and continuous current.



In the green shaded area of the table additional conductors/terminals are permitted up to the space limit of the enclosure. (see catalog pages C15 & C16)



In the area with red diagonal lines of the table no conductors/terminals are permitted.

Jumper links and ground wires can be neglected, in calculating the number of wires. These can be added whenever necessary.

Terminal Data

Terminal Type Phoenix	solid/stranded wire range	Max. voltage, V	Max. Amps	Torque lb-in
UT 2.5	26-12	600	20	5.3-7
UT 4	26-10	600	30	5.3-7
UT 6	24-8	600	50	13.3-16
UT 10	20-6	600	65	13.3-16
UT 16	16-4	600	85	22-26.5
UT 35	14-1/0	600	150	28-32.7
Terminal Type Weidmueller				
WDU 2.5	22-12	600	25	4.5-7.1
WDU 4	22-10	600	35	9
WDU 6	20-8	600	45	14.2
WDU 10	16-6	600	65	20.4
WDU 16	14-6	600	70	35
WDU 35	12-2	600	115	51
WDU 70	6-2/0	600	175	87
WDU 120	2-250	600	225	130
WFF 185	8-500	600	380	177
WFF 300	6-600	600	500	354
Terminal Type Wago				
281-691	28-12	600	20	N/A
281-991	28-12	600	20	N/A
282-691	24-10	600	30	N/A
283-691	24-6	600	65	N/A
284-691	24-8	600	50	N/A

EXAMPLE:

Enclosure type: 8125/1061-2DP-10021(see page C15).

The maximum physical quantity of terminals 30-10 AWG for this enclosure is 21.

Reference the table 8125/1061 on page C22, you will find that 18 wires 10 AWG with 30 Amps continuous current is the thermal limit of this enclosure.

Conclusion: To terminate 18 wires 9 terminals are needed, terminating two wires per terminal only. The remaining 12 terminals (21-9=12) can be used for low amperage circuits in the green shaded area of the table. Jumper links and ground wires can be neglected.

Mixed circuits of different wire sizes and current values are possible by applying the table values proportionally

i.e. enclosure table 8125/1061.

Wire Size AWG	Current Amps	Number of Current Carrying Conductors		Proportion
		Permissible	Actual	
12	20	24	12	50%
10	30	18	9	50%

100% max.

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Enclosure 8125/1041				
Current Amps	Wire size AWG			
	16	14	12	10
5				
10	29	57		
15		21	42	
20			21	47
25				24
30				15

Enclosure 8125/1051							
Current Amps	Wire size AWG						
	16	14	12	10	8	6	4
5							
10	32	64					
15		24	48				
20			24	53			
25				27			
30				17	38		
35					24		
40					17	44	
45						28	
50						20	
60							30
65							22
70							17

Enclosure 8125/1061							
Current Amps	Wire size AWG						
	16	14	12	10	8	6	4
5							
10	34	68					
15		26	51				
20			24	56			
25				29			
30				18	40		
35					25		
40					18	47	
45						29	
50						21	
60							32
65							24
70							18

Enclosure 8125/1063							
Current Amps	Wire size AWG						
	16	14	12	10	8	6	4
5							
10	45	89					
15		34	67				
20			33	74			
25				38			
30				24	53		
35					33		
40					23	62	
45						38	
50						28	
60							42
65							31
70							24

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Current Amps	Wire size AWG									
	16	14	12	10	8	6	4	3	2	1
5										
10	36	71								
15		27	53							
20			26	59						
25				30						
30				19	42					
35					27					
40					18	49				
45						31				
50						22				
60							33			
65						25	62			
70						19	35			
80							20	42		
85							16	30		
90							13	23		
100							9	16	29	
110								11	19	
115								9	16	
125										12

Current Amps	Wire size AWG											
	16	14	12	10	8	6	4	3	2	1	1/0	2/0
5												
10	46	91										
15		35	68									
20			34	75								
25				39								
30				24	54							
35					34							
40					24	63						
45						39						
50						28						
60							43					
65							32	80				
70							25	44				
80								26	54			
85								21	38			
90								17	30			
100								11	20	38		
110									14	25	84	
115									12	21	44	
125										15	28	
150											13	25
175												13

Current Amps	Wire size AWG/MCM														
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250
5															
10	53	105													
15		40	78												
20			39	87											
25				45											
30				28	62										
35					39										
40					27	72									
45						45									
50						33									
60							50								
65							37	92							
70							29	51							
80								30	62						
85								25	44						
90								20	34						
100								13	23	44					
110								16	29	97					
115								13	24	51					
125									17	32					
150										15	29				
175											15	30			
200												16	35		
225													18	36	

Current Amps	Wire size AWG										
	16	14	12	10	8	6	4	3	2	1	1/0
5											
10	49	98									
15		37	73								
20			36	80							
25				41							
30				26	58						
35					37						
40					25	67					
45						42					
50						30					
60							46				
65							34	85			
70							27	47			
80								28	58		
85								23	41		
90								19	32		
100								12	22	40	
110									15	27	87
115									12	22	46
125										16	29

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Enclosure 8125/1083															
Current Amps	Wire size AWG/MCM														
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250
5															
10	60	119													
15	45	89													
20	44	98													
25		50													
30		31	71												
35			45												
40			31	82											
45				51											
50				37											
60						56									
65						42	104								
70						32	58								
80							34	70							
85							28	50							
90							23	39							
100							15	26	49						
110							18	33	109						
115							15	27	58						
125								20	37						
150								17	33						
175									16	34					
200										18	40				
225											21	40			

Enclosure 8125/1085															
Current Amps	Wire size AWG/MCM														
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250
5															
10	68	133													
15	51	100													
20	49	110													
25		57													
30		35	79												
35			50												
40			35	92											
45				57											
50				42											
60						63									
65						47	117								
70						36	65								
80							38	79							
85							31	56							
90							25	44							
100							17	30	55						
110								21	37	123					
115								17	31	65					
125								22	41						
150									19	37					
175										19	38				
200											20	45			
225												24	45		

Enclosure 8125/1091											
Current Amps	Wire size AWG										
	16	14	12	10	8	6	4	3	2	1	1/0
5											
10	57	113									
15	43	84									
20	42	93									
25		48									
30			30	67							
35				42							
40				29	78						
45					49						
50					35						
60						53					
65						40	99				
70						31	55				
80							33	67			
85							26	47			
90							22	37			
100							14	25	47		
110								17	31	100	
115								14	26	53	
125									19	33	
150										15	

ELECTRICAL CAPACITY TABLES, APPLICABLE FOR CLASS I, ZONE 1 ONLY

Enclosure 8125/1093																			
Current Amps	Wire size AWG/MCM																		
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250	300	400	500	600
5																			
10	68	134																	
15	51	100																	
20	49	110																	
25		57																	
30		35	79																
35			50																
40			35	92															
45				57															
50				42															
60					63														
65					47	117													
70					36	65													
80						38	79												
85						31	56												
90						26	44												
100						17	30	56											
110						21	37	123											
115						17	31	65											
125							22	41											
150							19	37											
175								19	38										
200									20	45									
225										24	45								
250										24	60								
300											17								
350												22							
380													37						
400																		34	
450																			27

Enclosure 8125/1095																			
Current Amps	Wire size AWG/MCM																		
	16	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250	300	400	500	600
5																			
10	75	147																	
15	56	110																	
20		54	121																
25			62																
30			39	87															
35				55															
40				38	101														
45					63														
50					46														
60						69													
65						52	129												
70						40	72												
80						42	87												
85						34	61												
90						28	48												
100						19	33	61											
110							23	40	135										
115							19	34	72										
125								25	45										
150									21	41									
175										20	42								
200											22	49							
225												26	50						
250													27	66					
300														19					
350																	24		
380																		41	
400																			36
450																			29