



**KILLARK®**

## INSTALLATION, OPERATION & MAINTENANCE DATA SHEET

For GR series Threaded Enclosures.  
For use in Class I, Groups B, C & D, Class II, Groups E, F & G and Class III Hazardous Locations. Enclosure Type 3, 4 & 4X as defined by the Canadian Electrical Code and the National Electrical Code



## GR SERIES THREADED ENCLOSURES

### **CAUTION:**

Before installing, make sure you are compliant with area classifications, failure to do so may result in bodily injury, death and property damage. Do not attempt installation until you are familiar with the following procedures. All installation must comply with the applicable Electrical Code.

Make sure that the circuit is de-energized before starting installation or maintenance.

Verify that the installation is grounded. Failure to ground will create electrical shock hazards, which can cause serious injury and or death.

Technical information, advice and recommendations contained in these documents is based upon information that Killark believes to be reliable. All the information and advice contained in these documents is intended for use only by persons having been trained and possessing the requisite skill and know-how and to be used by such persons only at their own discretion and risk. The nature of these instructions is informative only and does not cover all of the details, variations or combinations in which this equipment may be used, its storage, delivery, installation, check out, safe operation and maintenance. Since conditions of use of the product are outside of the care, custody and control of Killark, the purchaser should determine the suitability of the product for his intended use, and assumes all risk and liability whatsoever in connection therewith.

**KILLARK®**



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P/N 00912036 FORM NO. K1144 R04/09 ECO I-004-09

Page 1 of 3

# 1. INSTALLATION INSTRUCTIONS

This junction box **must** be installed by trained, qualified and competent personnel. The installation **must** comply with local, state and national regulations, as well as safety practices for this type of equipment.

**WARNING:** Electrical power must be **OFF** during installation. Disconnect the primary power source and lock out.

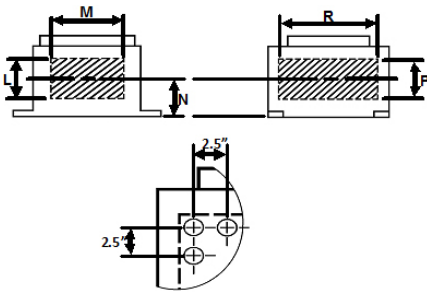
The mounting location must be flat and provide proper clearance, rigidity and strength to support the enclosure and all contained devices. Securely fasten the enclosure to the mounting location using 1/4" or 3/8" diameter (as required) steel mounting bolts and washers, or washer head bolts. Install sealing fitting and conduit using an approved electrical conducting type lubricant on the threads. The conduit thread connections must be tapered pipe thread conforming to ANSI/ASME B1.20.1. A minimum of 5 full threads engagement is required for all conduit connections. Conduit sealing fittings, approved for the specific hazardous location where the enclosure is used, must be installed within 18 inches of the enclosure. All unused conduit openings must be plugged using a close-up-plug approved for the specific hazardous location where the enclosure is used. Plugs must be tightly installed with a minimum engagement of 5 full threads.

**IMPORTANT:** Install only U.L. listed and CSA certified auxiliary control devices for hazardous locations. Refer to the individual operator installation sheet for installation details. The operator spacing is to be determined from the dimensional chart on the opposite side of this installation sheet.

**NOTE:** If installing a breather and/or a drain, make certain they are suitable for the specific hazardous location where they are to be used. Also, provide a protective device to shield the breather and drain during hosedown operations. Inspect and clean the machined, threaded surfaces of both the cover and the box. Clean surfaces by wiping with a clean, lint-free cloth. Apply a light coating of Killark "LUBG" lubricant to the cover threads. Install and hand tighten the cover to the box.

**NOTE:** The Internal Ground Screw provided in this enclosure **must** be used for the equipment grounding connection. The external ground (if provided) is provided for use only as a supplemental connection where required (or, permitted) by local codes or authorities. This enclosure is for use only with covers having eight full thread engagement and specified on the nameplate.





## 2. MAINTENANCE INSTRUCTIONS

After installation, this junction box should be inspected at regular intervals to ascertain that the cover is tight, that all conduit connections are intact and free of corrosion, and that the enclosure mounting bolts are tight and in good condition. If the enclosure must be opened for servicing the following procedures must be followed:

**WARNING:** Before servicing the enclosure, care must be taken to be certain that the electrical power is **OFF**. Disconnect the enclosure from the primary power source and lock out. Inspect the threaded flame joint surface. Threads must be free of nicks, dirt or any foreign particle build-up that would prevent a proper seal. Should the threads be damaged, consult the factory. Never attempt to rework threads. Threads must seat fully against each other to provide explosion-proof joint. Apply Killark "LUBG" lubricant to cover threads before re-installing the cover. An improper flame joint can result in an explosion, creating a potential for physical injury and property damage.

The side walls of "GR" series enclosures can be drilled and tapped for the installation of auxiliary control devices. The maximum number of openings allowed per side wall and the maximum total allowed for a specific enclosure are as shown in the chart below.

To maintain Group "B" suitability openings must have 7 full threads of engagement with the installed auxiliary device.

To maintain Group "C" & "D" suitability openings must have 5 full threads of engagement with the installed auxiliary device.

CATALOG NUMBER	L SHORT WALL HEIGHT	M SHORT WALL LENGTH	N CENTER-LINE OF CONDUIT	P LONG WALL LENGTH	R LONG WALL LENGTH	SHORT SIDE (ROWS X COLUMNS)	LONG SIDE (ROWS X COLUMNS)	MAXIMUM NUMBER OF OPENINGS PER LONG SIDE WALL	MAXIMUM NUMBER OF OPENINGS PER SHORT SIDE WALL	MAXIMUM NUMBER OF TOTAL OPENINGS PER ENCLOSURE
GRB	$2\frac{7}{32}$	$3\frac{3}{4}$	$1\frac{5}{8}$	$2\frac{7}{32}$	$3\frac{3}{4}$	1 X 2	1 X 2	2	2	4
GRE	$3\frac{5}{16}$	$4\frac{5}{8}$	$2\frac{1}{8}$	$3\frac{5}{16}$	$5\frac{3}{4}$	2 X 2	2 X 2	4	4	8
GRM	$4\frac{5}{16}$	6"	$2\frac{5}{8}$	$4\frac{5}{16}$	6"	2 X 2	2 X 2	4	4	8
GRK	$4\frac{1}{8}$	$6\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{5}{16}$	$8\frac{1}{2}$	2 X 2	2 X 3	4	6	10
GRL	$4\frac{15}{16}$	$7\frac{5}{8}$	$2\frac{3}{4}$	$4\frac{1}{8}$	$9\frac{1}{4}$	2 X 3	2 X 4	6	8	14
GRH	$4\frac{7}{8}$	$9\frac{1}{4}$	3"	$4\frac{1}{2}$	$10\frac{3}{8}$	2 X 4	2 X 4	8	8	16
GRHC	$6\frac{7}{8}$	8"	$4\frac{3}{16}$	$6\frac{7}{16}$	9"	3 X 3	3 X 4	9	12	21
GRHA	$12\frac{1}{4}$	$9\frac{1}{4}$	8"	$11\frac{3}{4}$	$10\frac{3}{8}$	4 X 4	4 X 4	16	16	32

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Page 3 of 3