

DER, GUB and GUBM Cast Junction Boxes

Explosionproof, Dust-Ignitionproof, Watertight

Furnished with surface cover and mounting lugs.

CEC:

Class I, Division 1 and 2, Groups A, B, C, D
Class I, Zone 1 and 2
Class II, Division 1 and 2, Groups E, F, G
Class III, Enclosure 4

Applications

- Explosionproof and dust-ignitionproof for use in classified locations.
- Corrosion-resistant: ideal indoors or outdoors.
- Junction or pull box for pulling and splicing of wires and as an enclosure for electrical devices.
- Ideal where number and size of conductors require a junction box with additional space.

Features

- Provided with mounting lugs.
- Furnished with covers.
- All conduit hubs and openings provide a minimum of five full threads to meet CSA requirements.
- Accurately tapped, tapered conduit threads provide tight, rigid joints and ground continuity.
- DER and GUB Series
 - Wide selection of sizes and locations for drilled and tapped conduit openings.
 - Suitable for use as an enclosure for relays, instrument and other control apparatus in classified locations.
 - Available in high tensile strength malleable iron or copperfree aluminum bodies.
- GUBM Series (Instrument)
 - GUBM junction boxes serve as an enclosure for meters, gauges and similar devices.
 - Complete with round, explosionproof glass window cover. Permits direct reading of enclosed instrument.
 - Furnished with one 3/4" drilled and tapped entry.
 - Mounting bosses are provided in the bottom of GUBM can be drilled and tapped for fastening of instrument mounting bracket.
- Surface covers furnished with DER and GUB junction boxes have lugs to take a bar or wrench. Other style covers, as listed below, are available.
- Sealing covers have a plugged hole through which the box can be filled with sealing cement after installation. See *Fittings Section* for information regarding sealing cement. Note: When sealing covers are used, splices or taps within the Unilets are prohibited by the CEC.
- Dome covers permit conductors to be pulled in with the ends extending well out beyond box body where splices can easily be made. The splices need not be crowded back into the box, but can be left as is when dome cover is used for their enclosure and protection.

Standard Materials

- Bodies: copperfree (4/10 of 1% max.) aluminum or malleable iron bodies
- DER and GUB covers: copperfree (4/10 of 1% max.) aluminum
- GUBM covers: copperfree (4/10 of 1% max.) aluminum and glass



DER1C

GUB2C



GUBM-2C

Options

- Other hub arrangements and sizes are available. Contact your local representative for details.
- Other means of instrument fastening are available. Contact your local representative for details.
- Instrument mounting plates or brackets can be furnished. On receipt of complete instrument dimensions, prices will be quoted. Contact your local representative for details.
- To order DER1C or DER1CA without mounting lugs add suffix -LF.

CEC Certifications and Compliances

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

DER, GUB and GUBM Cast Junction Boxes

Explosionproof, Dust-Ignitionproof, Watertight.

Furnished with surface cover and mounting lugs.

CEC:

- Class I, Division 1 and 2, Groups A, B, C, D
- Class I, Zone 1 and 2
- Class II, Division 1 and 2, Groups E, F, G
- Class III, Enclosure 4

ENCLOSURES AND JUNCTION BOXES: NEC/CEC EXPLOSIONPROOF ENCLOSURES

Ordering Information

Determining Catalog Numbers

- To determine the catalog number of junction boxes with entries, the following information should be shown:
 - 1) Junction box catalog number from listings on the following pages
 - 2) Sketch number of hub arrangement selected from the illustration below.
 - 3) Entry symbols taken from the table shown below. Start from the left (at Hub "A") on the top of the junction box and continue in rotation clockwise around its body. Where no entry is required, the symbol X should be inserted. The three various divisions of the catalog number should be separated by dashes.

Example mm (in)

GUB2C junction box is required with threaded conduit entries and unions. The arrangement of entries is per sketch #16.

- A — is to be 50.8 (2.00) drilled and tapped entry
- B — 31.8 (1.25)
- C — Blank (no entry)
- D — 50.8 (2.00)
- E — Blank
- F — 25.4 (1.00)
- J — Blank

The catalog number is:

GUB2C-16-64X6X3X.

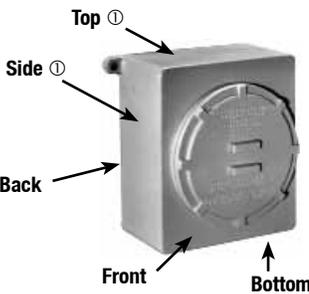
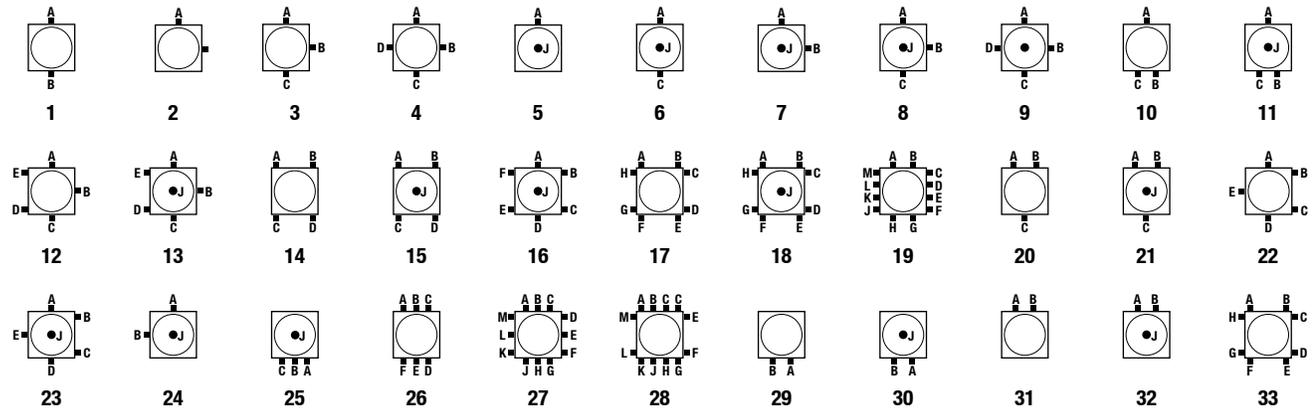
Unions are required at B and D.

Order UNY male unions from the Fittings Section of the catalog.

Conduit Entry Symbols

| Drilling and Tapped or Threaded Hubs | | | | Union Hubs (GUB4 only) | | | |
|--------------------------------------|--------|--------------|--------|------------------------|--------|--------------|--------|
| Size mm (in) | Symbol | Size mm (in) | Symbol | Size mm (in) | Symbol | Size mm (in) | Symbol |
| 12.7 (0.50) | 1 | 50.8 (2.00) | 6 | 12.7 (0.50) | 1E | 50.8 (2.00) | 6E |
| 19.1 (0.75) | 2 | 63.5 (2.50) | 7 | 19.1 (0.75) | 2E | 63.5 (2.50) | 7E |
| 25.4 (1.00) | 3 | 76.2 (3.00) | 8 | 25.4 (1.00) | 3E | 76.2 (3.00) | 8E |
| 31.8 (1.25) | 4 | 88.9 (3.50) | 9 | 31.8 (1.25) | 4E | 88.9 (3.50) | 9E |
| 38.1 (1.50) | 5 | 101.6 (4.00) | 10 | 38.1 (1.50) | 5E | 101.6 (4.00) | 10E |

Appleton®



Send sketch and description for other arrangements.

① GUB2C shown. Top and bottom measures 235.0 mm x 139.7 mm (9.25" x 5.25") and sides measure 269.9 mm x 139.7 mm (10.63" x 5.50").

DER, GUB and GUBM Cast Junction Boxes

Explosionproof, Dust-Ignitionproof, Watertight

Furnished with surface cover and mounting lugs.

CEC:

Class I, Division 1 and 2, Groups A, B, C, D
 Class I, Zone 1 and 2
 Class II, Division 1 and 2, Groups E, F, G
 Class III, Enclosure 4

DER and GUB Junction Boxes

| | | Dimensions in Millimeters (Inches) | | Catalog Number | |
|---|---|---|--------------|----------------|----------|
| | | Outside | Cover Dia. | Ferrous Alloy | Aluminum |
|  |  | 130.3 x 130.3 x 103.1 (5.13 x 5.13 x 4.06) | 98.8 (3.88) | DER1C ① | DER1CA ① |
| DER1C | GUB1C | 177.8 x 177.8 x 165.1 (7.00 x 7.00 x 6.50) | 136.7 (5.38) | GUB1C | GUB1CA |
|  |  | 270.0 x 235.0 x 171.5 (10.63 x 9.25 x 6.75) | 182.6 (7.19) | GUB2C | GUB2CA |
| GUB2C | GUB3C | 316.0 x 316.0 x 214.4 (12.44 x 12.44 x 8.44) | 249.2 (9.81) | GUB3C | GUB3CA |

Maximum Size and Number of Entries Supplied on Any One Side

| Catalog Number | Dimensions in Millimeters (Inches) | | | | | | | | | |
|----------------|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | 12.7 (0.50) | 19.1 (0.75) | 25.4 (1.00) | 31.8 (1.25) | 38.1 (1.50) | 50.8 (2.00) | 63.5 (2.50) | 76.2 (3.00) | 88.9 (3.50) | 101.6 (4.00) |

Drilled and Tapped - With Clearance for Conduit Seals

| | | | | | | | | | | |
|-------|---|---|-----|-----|---|---|-----|---|---|---|
| DER1C | 3 | 2 | 2 ② | 1 ② | — | — | — | — | — | — |
| GUB1C | 4 | 4 | 4 | 2 | 2 | 1 | — | — | — | — |
| GUB2C | 4 | 4 | 4 | 3 | 3 | 2 | 2 ② | — | — | — |
| GUB3C | 4 | 4 | 4 | 3 | 3 | 2 | 2 | — | — | — |

With UNY Male Unions

| | | | | | | | | | | |
|-------|---|---|-----|-----|---|---|-----|---|---|---|
| DER1C | 3 | 2 | 2 ② | 1 ② | — | — | — | — | — | — |
| GUB1C | 3 | 3 | 4 | 2 | 2 | — | — | — | — | — |
| GUB2C | 4 | 4 | 4 | 3 | 3 | 2 | 1 ② | — | — | — |
| GUB3C | 4 | 4 | 4 | 3 | 3 | 2 | 1 | — | — | — |

Maximum Entry in Back

GUB1C - 2"; GUB2C - 2"; GUB3C - 6"

① To order DER1C or DER1CA without mounting lugs add the suffix **-LF** to the catalog number.

② Requires pad. Available on special order, contact your local sales representative.

DER, GUB and GUBM Cast Junction Boxes

Explosionproof, Dust-Ignitionproof, Watertight

Furnished with surface cover and mounting lugs.

CEC:

- Class I, Division 1 and 2, Groups A, B, C, D
- Class I, Zone 1 and 2
- Class II, Division 1 and 2, Groups E, F, G
- Class III, Enclosure 4

ENCLOSURES AND JUNCTION BOXES: NEC/CEC EXPLOSIONPROOF ENCLOSURES

GUBM Instrument Junction Boxes

| | | Type of Body | Mounting Lugs | Hub Size (Inches) | Cover Opening in Millimeters (Inches) | Catalog Number | |
|--|--|--------------|---------------|-------------------|---------------------------------------|----------------|-----------------|
| | | | | | | Ferrous Alloy | Aluminum |
|  GUB-1C |  GUB-2C | GUB-1C | 2 | 3/4 | 136.5 (5.38) | GUBM-1C | GUBM-1CA |
| | | GUB-2C | 2 | 3/4 | 188.9 (7.44) | GUBM-2C | GUBM-2CA |

DER, GUB and GUBM Junction Box Covers

DER Form 1 and GR Form 2 have the same cover opening.

DER and GUB junction boxes are furnished with surface covers. Order the remaining below listed covers as follows: Specify junction box catalog number and the catalog number of the cover required from the listings below.

Example: GUB-2-16-64EX63E4EX, except with GUBK-2-6 dome cover.

| | | Type of Body | Type of Cover | Inside Diameter in Millimeters (Inches) | Catalog Number |
|---|--|--------------|----------------|---|----------------|
|  | | DER1C | Surface Covers | 90.5 (3.56) | GRK-2C |
| | | GUB1C | | 117.5 (4.63) | GUBK-1C |
| | | GUB2C | | 158.8 (6.25) | GUBK-2C |
| | | GUB3C | | 225.4 (8.88) | GUBK-3C |
|  | | DER1C | Sealing Covers | 90.5 (3.56) | GRK-2SC |

Appleton®

DER, GUB and GUBM Cast Junction Boxes

Explosionproof, Dust-Ignitionproof, Watertight

Furnished with surface cover and mounting lugs.

CEC:

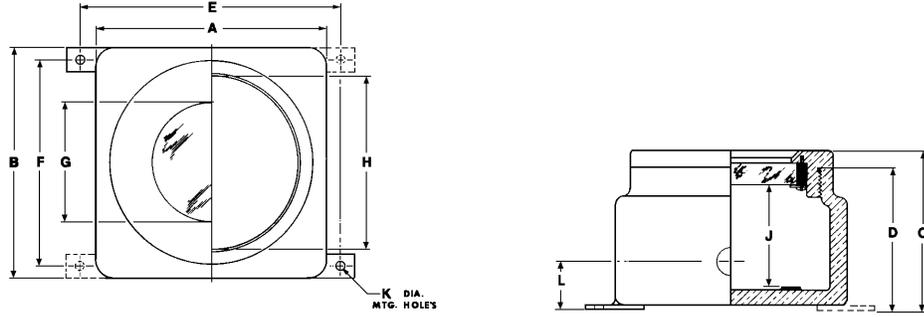
Class I, Division 1 and 2, Groups A, B, C, D

Class I, Zone 1 and 2

Class II, Division 1 and 2, Groups E, F, G

Class III, Enclosure 4

GUBM Dimensions in Millimeters (Inches)



| Catalog Number | Mounting Lugs | Dimensions in Millimeters (Inches) | | | | | | | | | | |
|----------------|---------------|------------------------------------|------------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|
| | | A | B | C | D | E | F | G – Dia. | H – Dia. | J | K – Dia. | L |
| GUBM-1C | 2 | 177.8 (7.00) | 177.8 (7.00) | 165.1 (6.50) | 133.4 (5.25) | 209.6 (8.25) | 152.4 (6.00) | 92.1 (3.63) | 136.5 (5.38) | 117.5 (4.63) | 12.7 (0.50) | 52.4 (2.06) |
| GUBM-2C | 2 | 235.3 (9.27) | 269.1 (10.59) | 170.7 (6.72) | 142.9 (5.63) | 263.5 (10.38) | 243.4 (9.59) | 127.0 (5.00) | 185.7 (7.31) | 111.1 (4.38) | 12.7 (0.50) | 52.4 (2.06) |

ENCLOSURES AND JUNCTION BOXES: NEC/CEC EXPLOSIONPROOF ENCLOSURES

Appleton®

DER, GUB and GUBM Cast Junction Boxes

Explosionproof, Dust-Ignitionproof, Watertight

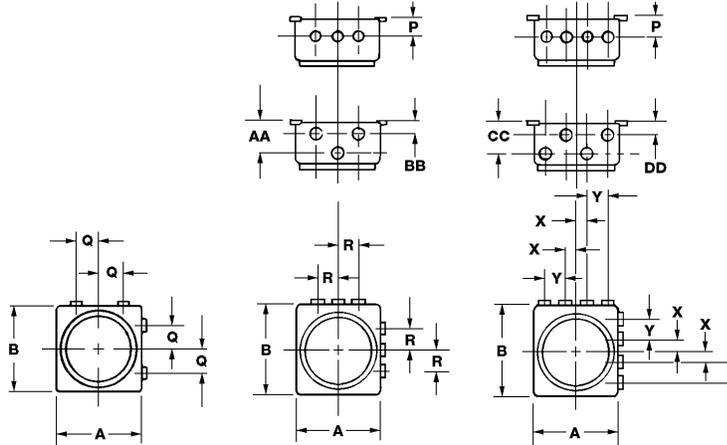
Furnished with surface cover and mounting lugs.

CEC:

- Class I, Division 1 and 2, Groups A, B, C, D
- Class I, Zone 1 and 2
- Class II, Division 1 and 2, Groups E, F, G
- Class III, Enclosure 4

ENCLOSURES AND JUNCTION BOXES: NEC/CEC EXPLOSIONPROOF ENCLOSURES

GUB Dimensions in Millimeters (Inches)



| Type | Entry Size | Dimensions in Millimeters (Inches) | | | | | | | | | |
|--|------------|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | P | Q | R | X | Y | AA | BB | CC | DD | |
| Threaded Entries ① | DER1C | 1/2 | 36.5 (1.44) | 30.2 (1.19) | 36.5 (1.44) | — | — | 2 | 24.6 (0.97) | — | — |
| | | 3/4 | 36.5 (1.44) | 30.2 (1.19) | — | — | — | — | — | — | — |
| | | 1 ① | 36.5 (1.44) ① | 30.2 (1.19) ① | — | — | — | — | — | — | — |
| | | 1-1/4 ① | 36.5 (1.44) ① | — | — | — | — | — | — | — | — |
| Threaded Entries ① | GUB1C | 1/2 | 52.4 (2.06) | 36.5 (1.44) | 44.5 (1.75) | 17.5 (0.69) | 34.9 (1.38) | 85.7 (3.38) | 44.5 (1.75) | 88.9 (3.50) | 42.9 (1.69) |
| | | 3/4 | 52.4 (2.06) | 36.5 (1.44) | 44.5 (1.75) | 17.5 (0.69) | 34.9 (1.38) | 85.7 (3.38) | 44.5 (1.75) | 88.9 (3.50) | 42.9 (1.69) |
| | | 1 | 52.4 (2.06) | 36.5 (1.44) | 44.5 (1.75) | 17.5 (0.69) ③ | 34.9 (1.38) ③ | 85.7 (3.38) | 44.5 (1.75) | 88.9 (3.50) ③ | 42.9 (1.69) ③ |
| | | 1-1/4 | 52.4 (2.06) | 36.5 (1.44) | — | — | — | — | — | — | — |
| | | 1-1/2 | 52.4 (2.06) | — | — | — | — | — | — | — | — |
| | | 2 | 63.5 (2.50) | — | — | — | — | — | — | — | — |
| | | 2-1/2 ① | 66.8 (2.63) ① | 57.2 (2.25) ① | — | — | — | — | — | — | — |
| Top or Bottom Side 9-1/4" x 5-1/2" | GUB2C | 1/2 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) | 254 (1.00) | 50.8 (2.00) | 84.1 (3.31) | 50.8 (2.00) | 90.5 (3.56) | 95.3 (3.75) |
| | | 3/4 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) | 254 (1.00) | 50.8 (2.00) | 84.1 (3.31) | 50.8 (2.00) | 90.5 (3.56) | 95.3 (3.75) |
| | | 1 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) | 254 (1.00) | 50.8 (2.00) | 84.1 (3.31) | 50.8 (2.00) | 90.5 (3.56) | 95.3 (3.75) |
| | | 1-1/4 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) | — | — | 84.1 (3.31) | 50.8 (2.00) | — | — |
| | | 1-1/2 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) ③ | — | — | 84.1 (3.31) ③ | 50.8 (2.00) ③ | — | — |
| | | 2 | 66.8 (2.63) | 57.2 (2.25) | — | — | — | — | — | — | — |
| | | 2-1/2 ① | 66.8 (2.63) ① | 57.2 (2.25) ① | — | — | — | — | — | — | — |
| | | 1/2 | 82.6 (3.25) | 60.3 (2.38) | 82.6 (3.25) | 30.2 (1.19) | 60.3 (2.38) | 98.4 (3.88) | 68.3 (2.69) | 68.3 (2.69) | 98.4 (3.88) |
| | | 3/4 | 82.6 (3.25) | 60.3 (2.38) | 82.6 (3.25) | 30.2 (1.19) | 60.3 (2.38) | 98.4 (3.88) | 68.3 (2.69) | 68.3 (2.69) | 98.4 (3.88) |
| | | 1 | 82.6 (3.25) | 60.3 (2.38) | 82.6 (3.25) | 30.2 (1.19) | 60.3 (2.38) | 98.4 (3.88) | 68.3 (2.69) | 68.3 (2.69) | 98.4 (3.88) |
| Top or Bottom Side 9-1/4" x 5-1/2" | GUB3C | 1-1/4 | 82.6 (3.25) | 60.3 (2.38) | 82.6 (3.25) | — | — | 98.4 (3.88) | 68.3 (2.69) | — | — |
| | | 1-1/2 | 82.6 (3.25) | 60.3 (2.38) | 82.6 (3.25) | — | — | 98.4 (3.88) | 68.3 (2.69) | — | — |
| | | 2 | 82.6 (3.25) | 60.3 (2.38) | — | — | — | — | — | — | — |
| | | 2-1/2 | 82.6 (3.25) | 60.3 (2.38) ① | — | — | — | — | — | — | — |
| | | 1/2 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) | 254 (1.00) | 50.8 (2.00) | 84.1 (3.31) | 50.8 (2.00) | 90.5 (3.56) | 44.5 (1.75) |
| | | 3/4 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) | 254 (1.00) | 50.8 (2.00) | 84.1 (3.31) | 50.8 (2.00) | 90.5 (3.56) | 44.5 (1.75) |
| Left or Right Side 10-5/8" x 5-1/2" | GUB2C | 1 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) | 254 (1.00) | 50.8 (2.00) | 84.1 (3.31) | 50.8 (2.00) | 90.5 (3.56) | 44.5 (1.75) |
| | | 1-1/4 | 52.4 (2.06) | 52.4 (2.06) | 71.4 (2.81) | 30.2 (1.19) ④ | 58.7 (2.31) ④ | 84.1 (3.31) | 50.8 (2.00) | 87.3 (3.44) ④ | 47.6 (0.88) ④ |
| | | 1-1/2 | 52.4 (2.06) | 52.4 (2.06) | 79.4 (3.13) | — | — | 84.1 (3.31) | 50.8 (2.00) | — | — |
| | | 2 | 66.8 (2.63) | 57.2 (2.25) | — | — | — | — | — | — | — |
| | | 2-1/2 ① | 66.8 (2.63) ① | 57.2 (2.25) ① | — | — | — | — | — | — | — |

Caution: Dimensions between hub centres are for use with hubs of the same size. These dimensions will not necessarily hold true for a combination of hubs of extreme sizes. Please consult Engineering Dept. for special combinations of hubs.

- ① Dimensions permit assembly of seals on adjacent conduit runs.
- ② Requires pad. Available only on special order from factory.
- ③ Seals must be staggered for assembly on adjacent conduit runs.
- ④ Dimensions will not permit assembly of unions on adjacent conduit runs.

