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## Red Dot® - Rigid conduit fittings



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## Red Dot - Rigid conduit fittings

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## Conduit unions – Hazardous locations



### Applications

- Unions are used as connecting elements between enclosures, fittings or boxes, which permit future changes to the system in both hazardous and non-hazardous areas.

### Features/benefits

- Copper-free (less than 0.004% copper content) aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Precision NPT threaded hubs allow trouble-free field installation for rigid or IMC conduit
- Clear UL, CSA and cubic content markings speed approval by inspectors
- Unique concentric ring design ensures critical flame path control



### Standard materials

- Die cast aluminum alloy A360 (less than 0.004% copper content)
- EXMU nipples are galvanized steel

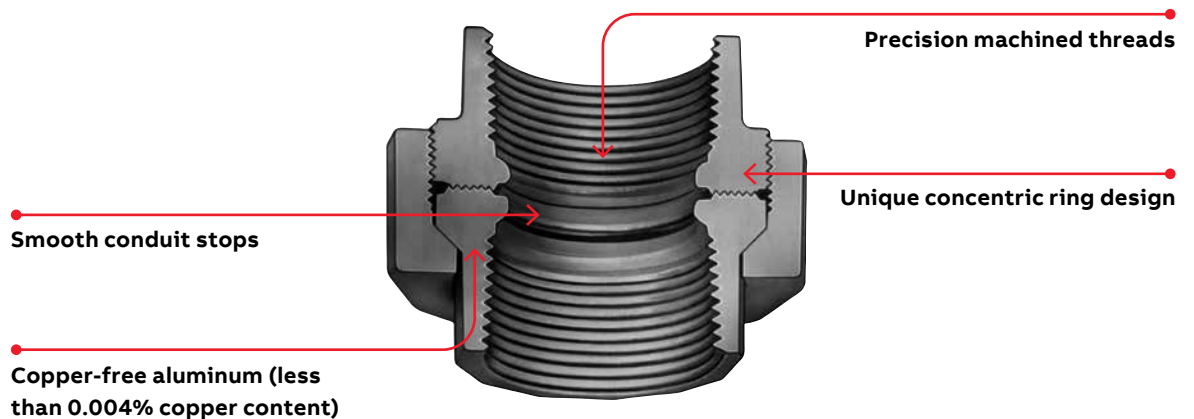
### Standard finish

- Aluminum lacquer finish

### Compliances

Compliances as noted on each page of the catalogue include:

- CSA Certified
- UL Listed
- Class I, Div. 1 and 2, Groups C, D – Explosion-proof
- Class II, Div. 1, Groups E, F, G – Dust-Ignition-proof
- Class III, Div. 1 and 2 – Raintight
- NEMA 3, 4, 7 CD, 9 EFG – Wet locations



## Conduit unions – Hazardous locations

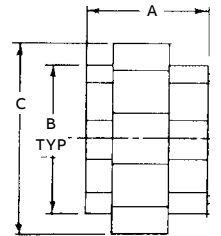
Male and female conduit unions



Cat. no.	Hub size (in.)	A (in.)	B (in.)	C (in.)	
<b>Female to female union (cast aluminum)</b>					
EXFU-1	½	1¾	1⅞	1½	1½/16
EXFU-2	¾	1¾	1⅞	1½	1½/16
EXFU-3	1	2	1⅞	1½	2¾/16
EXFU-4	1¼	2¼	1⅞	1½	2¼
EXFU-5	1½	2¼	2⅞	1½	3
EXFU-6	2	2¼	2⅞	1½	3½
EXFU-7	2½	3¾	3⅞	1½	4¼
EXFU-8	3	3¾	3⅞	1½	5
EXFU-9	3½	3½	4⅞	1½	5⅞
EXFU-10	4	3⅞	5⅞	1½	6⅞



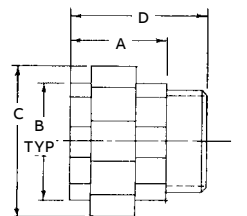
Diagram



Cat. no.	Hub size (in.)	A (in.)	B (in.)	C (in.)	D (in.)
<b>Female to female union (cast aluminum)</b>					
EXMU-1	½	1¾	1⅞	1½	2½/32
EXMU-2	¾	1¾	1⅞	1½	2¼/16
EXMU-3	1	2	1⅞	1½	2½/16



Diagram



## Conduit fittings – Hazardous locations



### Applications

- Junction for branch conduit
- Accessible wiring chamber provides a convenient location to pull conductors

### Features/benefits

- Copper-free (less than 0.004% copper content) aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Precision NPT threaded hubs allow trouble-free field installation for rigid or IMC conduit
- Deep slotted cover screws for faster installation
- Clear UL, CSA and cubic content markings speed approval by inspectors



### Standard materials

- Die cast aluminum alloy A360 (less than 0.004% copper content)

### Standard finish

- Aluminum lacquer finish

### Compliances

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- CSA Certified
- UL Listed
- Class I, Div. 1 and 2, Groups C, D – Explosion-proof
- Class II, Div. 1, Groups E, F, G – Dust-Ignition-proof
- Class III, Div. 1 and 2 – Raintight
- NEMA 3, 4, 7 CD, 9 EFG – Wet locations

Precision machined threads and surfaces

Smooth conduit stops

Copper-free aluminum (less than 0.004% copper content)



Deep slotted screws

Heavy wall construction

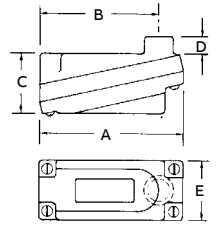
## Conduit fittings – Hazardous locations

### Conduit elbows and capped elbows



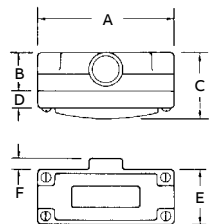
Cat. no.	Hub size (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)
<b>“LB” style conduit body (cast aluminum)</b>						
EXLB-1	½	4¾	¾	1¾	1½	1½
EXLB-2	¾	4¾	¾	1½	1½	1½
EXLB-3	1	5¾	1½	2½	2½	2½

Diagrams



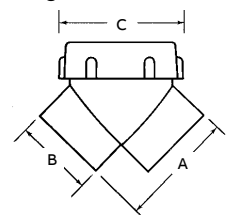
Cat. no.	Hub size (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)
<b>“T” style conduit body (cast aluminum)</b>							
EXLB-1	½	4¼	1⅝	2⅝	½	1½	1½
EXLB-2	¾	4¾	1½	2¾	¾	1½	1½
EXLB-3	1	5½	1⅝	2½	¾	2½	¾

Diagrams



Cat. no.	Hub size (in.)	A (in.)	B (in.)	C (in.)
<b>Capped elbow female to female (cast aluminum)</b>				
GYF-1	½	1½	1⅝	2
GYF-2	¾	2¾	1⅝	2½
GYF-3	1	2¾	1⅝	2½

Diagram



## Sealing fittings – Hazardous locations



### Applications:

- Limits flames and/or explosions to area within electrical system where they originate
- Limits pressure piling
- Required for conduit systems in hazardous locations 18 in. from an enclosure housing or a heat producing or arcing device; on 2 in. and larger system that enters an enclosure containing splices; wherever conduit leaves a Class I, Division I area and enters a non-hazardous area



### Features/benefits:

- Copper-free (less than 0.004% copper content) aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Precision NPT threaded hubs allow trouble-free field installation for rigid or IMC conduit
- Large opening provides maximum working room for creating dam and seal pouring to speed up installation
- Compact design permits close construction of parallel conduit runs



### Standard materials:

- Sealing fittings: Die cast aluminum alloy A360 (less than 0.004% copper content)
- Sealing cement
- Fiber: Flame-retardant Kaowool Type A fiber

### Standard finish:

- Aluminum lacquer finish

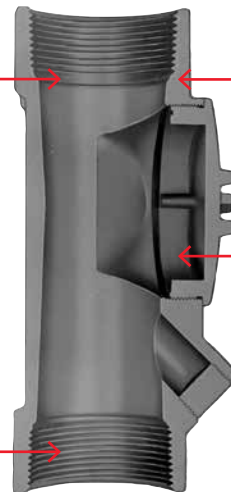
### Compliances:

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- Class III, Div. 1 and 2 – Raintight
- NEMA 3, 4, 7 CD, 9 EFG – Wet locations

Smooth conduit stops

Precision machined threads



Copper-free aluminum  
(less than 0.004% copper content)

Large aperture for easy  
installation



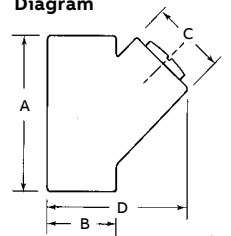
## Sealing fittings – Hazardous locations

### Vertical sealing fittings (cast aluminum)



Cat. no.	Hub size (in.)	Cement qty. (oz.)	Fiber qty. (oz.)	A (in.)	B (in.)	C (in.)	D (in.)
EYVF-1*	1/2	–	–	2 3/4	1 3/16	1 1/16	1/2
EYVF-2*	3/4	–	–	2 7/8	1 3/8	1 1/16	2 13/16
EYVF-3*	1	–	–	3 1/16	1 3/8	1 1/16	3 3/16
EYVF-11 <sup>†</sup>	1/2	2	1/32	2 3/4	1 3/16	1 1/16	1/2
EYVF-22 <sup>†</sup>	3/4	3	1/16	2 7/8	1 3/8	1 1/16	2 13/16
EYVF-33 <sup>†</sup>	1	4	1/8	3 1/16	1 3/8	1 1/16	3 3/16

Diagram



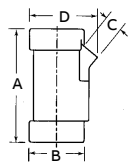
\* Packaged with an adequate amount of sealing compound close-up plugs installed.  
<sup>†</sup> Approximate amount of cement and fiber required in oz. per hub

### Vertical/horizontal sealing fittings (cast aluminum)



Cat. no.	Hub size (in.)	Cement qty. (oz.)	Fiber qty. (oz.)	A (in.)	B (in.)	C (in.)	D (in.)	
EVHF-1 through 3	EVHF-1 <sup>†</sup>	1/2	2	1/32	4 1/32	1 5/32	1 1/64	1 1/8
	EVHF-2 <sup>†</sup>	3/4	3	1/32	4 3/32	1 3/8	1 1/64	2 3/32
	EVHF-3 <sup>†</sup>	1	4	1/4	4 3/8	1 39/64	1 1/64	2 5/16
	EVHF-4 <sup>†</sup>	1 1/4	4	1/4	5	2 1/16	1 1/8	2 7/8
	EVHF-5 <sup>†</sup>	1 1/2	6	1/2	5	2 1/16	1 1/8	3 1/4
	EVHF-6 <sup>†</sup>	2	12	1	5	2 15/16	1 1/8	3 3/4

Diagram



<sup>†</sup> Approximate amount of cement and fiber required in oz. per hub

### Sealing cement



Cat. no.	Qty. (oz.)	Volume (cu. in.)
EXSC-2	3.2	2
EXSC-8	13	3
EXSC-16	1 lb, 10	4

### Packing fiber



Cat. no.	Qty. (lb)
EXPF-16 <sup>†</sup>	1

<sup>†</sup> CSA not applicable

## Conduit hubs – Raintight for threaded rigid metal conduit



### Applications:

- A fitting for connecting junction box to junction box, or junction box to the conduit system
- The resulting connection maintaining ground continuity is raintight
- Suitable for use where the system is normally hosed down (NEMA 4) for cleaning



### Features/benefits:

- Plastic insulated throat, precision cast and machined surfaces permit safer wire pulling
- Special flush locking nipple design provides maximum space for wiring in the box
- Captive O-ring fits snugly in groove, preventing loss and fumbling with parts
- Knurled inner face of locking nipple provides 360 degrees of locking and bites through box paint to ensure grounding
- Locking nipple has tightening lugs on two planes for easier assembly in hard-to-reach field conditions
- Grounding hubs have a ground screw located within the enclosure, providing a tamper-proof ground for device
- Locking nipple design permits replacement of the box without disassembling the installation

### Standard materials:

- HTZ series: Certified die cast zinc alloy ZAMAK 3
- HT series: Die cast aluminum alloy A360 (less than 0.004% copper content)

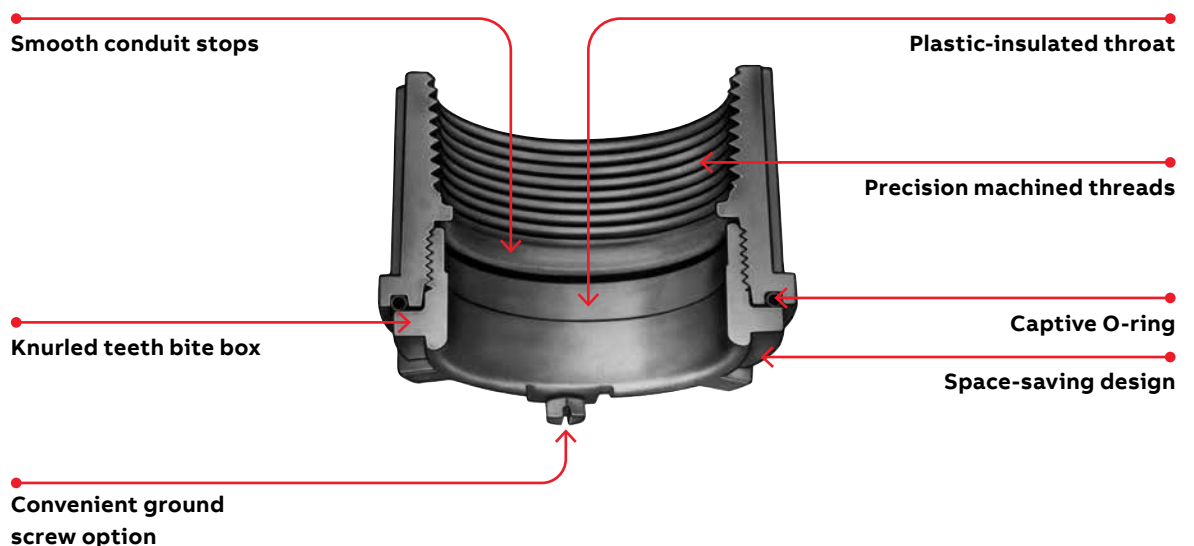
### Standard finish:

- Aluminum lacquer finish

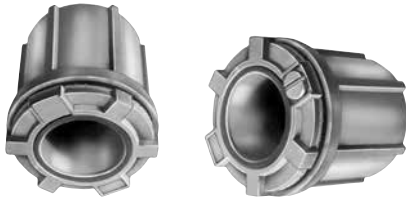
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- NEMA 3, 4, 7 CD, 9 EFG – Wet locations

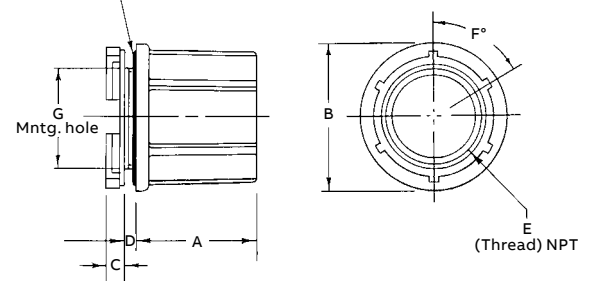


## Conduit hubs – Raintight for threaded rigid metal conduit



Cat. no.	Hub size (in.)	A (in.)	B (in.)	C (in.)	D (in.) panel thickness	E (in.)	F (degrees)	G (in.) min.	G (in.) max.	J (mm) O-ring size
<b>Insulated throat (cast zinc)</b>										
HTZ1	½	1⅜	1 <sup>13</sup> / <sub>32</sub>	¼	⅜ <sub>16</sub>	½ – 14	60	5 <sup>5</sup> / <sub>64</sub>	5 <sup>9</sup> / <sub>64</sub>	214
HTZ2	¾	1⅜	1 <sup>21</sup> / <sub>32</sub>	¼	⅜ <sub>16</sub>	¾ – 14	60	1 <sup>3</sup> / <sub>32</sub>	1 <sup>11</sup> / <sub>64</sub>	218
HTZ3	1	1 <sup>19</sup> / <sub>32</sub>	1⅞	¼	¼	1 – 11½	60	1 <sup>5</sup> / <sub>16</sub>	1 <sup>27</sup> / <sub>64</sub>	222
HTZ4	1¼	1 <sup>23</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	¼	¼	1¼ – 11½	60	1 <sup>43</sup> / <sub>64</sub>	1 <sup>51</sup> / <sub>64</sub>	225
HTZ5	1½	1¾	2⅞	¼	¼	1½ – 11½	60	1 <sup>29</sup> / <sub>32</sub>	2 <sup>13</sup> / <sub>64</sub>	227
HTZ6	2	1 <sup>25</sup> / <sub>32</sub>	3 <sup>5</sup> / <sub>32</sub>	¼	¼	2 – 11½	60	2⅞	2 <sup>21</sup> / <sub>32</sub>	231
HTZ7	2½	2¼	2 <sup>45</sup> / <sub>64</sub>	⅜	¼	2½ – 8	45	2⅞	3 <sup>5</sup> / <sub>32</sub>	236
HTZ8	3	2 <sup>21</sup> / <sub>64</sub>	4 <sup>5</sup> / <sub>16</sub>	⅜	¼	3 – 8	45	3½	3 <sup>49</sup> / <sub>64</sub>	241
HTZ9	3½	2 <sup>23</sup> / <sub>64</sub>	4 <sup>13</sup> / <sub>16</sub>	⅜	¼	3½ – 8	45	4	4 <sup>7</sup> / <sub>16</sub>	245
HTZ10	4	2⅞	5 <sup>5</sup> / <sub>16</sub>	⅜	¼	4 – 8	45	4½	4 <sup>63</sup> / <sub>64</sub>	248
<b>Insulated throat and ground screw (cast zinc)</b>										
HTGZ1	½	1⅜	1 <sup>13</sup> / <sub>32</sub>	¼	⅜ <sub>16</sub>	½ – 14	60	5 <sup>5</sup> / <sub>64</sub>	5 <sup>9</sup> / <sub>64</sub>	214
HTGZ2	¾	1⅜	1 <sup>21</sup> / <sub>32</sub>	¼	⅜ <sub>16</sub>	¾ – 14	60	1 <sup>3</sup> / <sub>32</sub>	1 <sup>11</sup> / <sub>64</sub>	218
HTGZ3	1	1 <sup>19</sup> / <sub>32</sub>	1⅞	¼	¼	1 – 11½	60	1 <sup>5</sup> / <sub>16</sub>	1 <sup>27</sup> / <sub>64</sub>	222
HTGZ4	1¼	1 <sup>23</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	¼	¼	1¼ – 11½	60	1 <sup>43</sup> / <sub>64</sub>	1 <sup>51</sup> / <sub>64</sub>	225
HTGZ5	1½	1¾	2⅞	¼	¼	1½ – 11½	60	1 <sup>29</sup> / <sub>32</sub>	2 <sup>13</sup> / <sub>64</sub>	227
HTGZ6	2	1 <sup>25</sup> / <sub>32</sub>	3 <sup>5</sup> / <sub>32</sub>	¼	¼	2 – 11½	60	2⅞	2 <sup>21</sup> / <sub>32</sub>	231
HTGZ7	2½	2¼	2 <sup>45</sup> / <sub>64</sub>	⅜	¼	2½ – 8	45	2⅞	3 <sup>5</sup> / <sub>32</sub>	236
HTGZ8	3	2 <sup>21</sup> / <sub>64</sub>	4 <sup>5</sup> / <sub>16</sub>	⅜	¼	3 – 8	45	3½	3 <sup>49</sup> / <sub>64</sub>	241
<b>Insulated throat (cast aluminum)</b>										
HT1	½	1⅜	1 <sup>13</sup> / <sub>32</sub>	¼	⅜ <sub>16</sub>	½ – 14	60	5 <sup>5</sup> / <sub>64</sub>	5 <sup>9</sup> / <sub>64</sub>	214
HT2	¾	1⅜	1 <sup>21</sup> / <sub>32</sub>	¼	⅜ <sub>16</sub>	¾ – 14	60	1 <sup>3</sup> / <sub>32</sub>	1 <sup>11</sup> / <sub>64</sub>	218
HT3	1	1 <sup>19</sup> / <sub>32</sub>	1⅞	¼	¼	1 – 11½	60	1 <sup>5</sup> / <sub>16</sub>	1 <sup>27</sup> / <sub>64</sub>	222
HT4	1¼	1 <sup>23</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	¼	¼	1¼ – 11½	60	1 <sup>43</sup> / <sub>64</sub>	1 <sup>51</sup> / <sub>64</sub>	225
HT5	1½	1¾	2⅞	¼	¼	1½ – 11½	60	1 <sup>29</sup> / <sub>32</sub>	2 <sup>13</sup> / <sub>64</sub>	227
HT6	2	1 <sup>25</sup> / <sub>32</sub>	3 <sup>5</sup> / <sub>32</sub>	¼	¼	2 – 11½	60	2⅞	2 <sup>21</sup> / <sub>32</sub>	231
HT7	2½	2¼	2 <sup>45</sup> / <sub>64</sub>	⅜	¼	2½ – 8	45	2⅞	3 <sup>5</sup> / <sub>32</sub>	236
HT8	3	2 <sup>21</sup> / <sub>64</sub>	4 <sup>5</sup> / <sub>16</sub>	⅜	¼	3 – 8	45	3½	3 <sup>49</sup> / <sub>64</sub>	241
HT9	3½	2 <sup>23</sup> / <sub>64</sub>	4 <sup>13</sup> / <sub>16</sub>	⅜	¼	3½ – 8	45	4	4 <sup>7</sup> / <sub>16</sub>	245
HT10	4	2⅞	5 <sup>5</sup> / <sub>16</sub>	⅜	¼	4 – 8	45	4½	4 <sup>63</sup> / <sub>64</sub>	248

Diagrams J

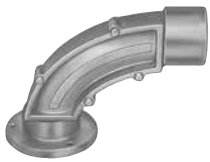


## Concrete slab inserts



### Applications:

- Permits in-slab ceiling drops and floor mounts in poured concrete
- Provides flush threaded conduit hub for mounting, pulling and future access to conduit systems
- Design permits prefabrication of in-slab conduit system



### Features/benefits:

- Flush design leaves no broken or bent stubs for easy removal of undamaged forms
- Flush design permits simplified in-slab work
- Flush design leaves a neat, uncluttered job
- Offered in straight ES configuration for straight through conduit runs and mounting of floor boxes in slabs over 6 in. thick
- Offered in ESL configuration to eliminate bending of conduit in slabs over 4 in. thick
- Precision cast and machined surfaces permit safer wire pulling
- ZAMAK 3 Zinc can be embedded in concrete

### Standard materials:

- Die cast zinc alloy ZAMAK 3; certified by the Certified Zinc Alloy Plan (CZAP)

### Standard finish:

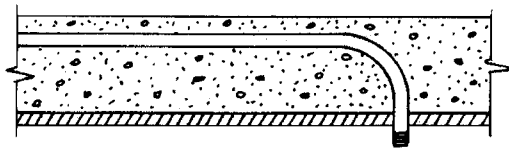
- Natural

### Compliances:

Compliances as noted on each page of the catalogue include:

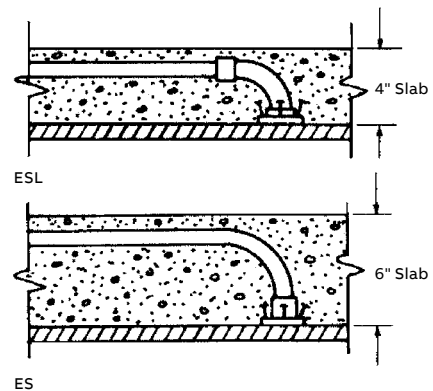
- CSA Certified
- UL Listed

### Old way



Conduit running in a cement slab is bent 90° to run through a hole drilled in the form. Drilling takes time and damages the form. Stripping form often damages conduit stubs. Varying length of stubs requires individual measuring and cutting of conduit drops

### Red Dot way



Conduit running in a cement slab is attached to a 90° concrete slab insert, or conduit is bent 90° and is threaded to a straight insert. Nail or screw fitting to wood or metal forms. After concrete is poured and forms stripped, conduit drops quickly into fittings. Drops are easily measured from ceiling line to switch or outlet height and cut in uniform lengths.

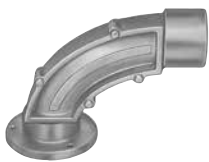
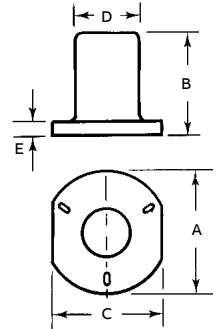
## Concrete slab inserts

### Concrete-tight conduit inserts



Cat. no.	Hub size (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)
<b>Straight conduit inserts (zinc)</b>						
ES-1	1/2	1 59/64	1 1/16	1 23/32	1 1/32	1/4
ES-2	3/4	2 11/64	1 5/8	1 31/32	1 1/4	1/4
ES-3	1	2 9/16	2	2 5/16	1 17/32	1/4

Diagrams



Cat. no.	Hub size (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)
<b>90° angle conduit inserts (zinc)</b>								
ESL-1	1/2	4 27/32	3 45/64	3 29/32	3 3/16	1 7/8	1 1/32	1/4
ESL-2	3/4	5 11/64	3 23/32	4 1/8	4 7/8	2 1/8	1 1/4	1/4
ESL-3	1	5 5/32	3 3/4	3 15/16	3 15/16	2 7/16	1 17/32	1/4

Diagram

