# Leak Detection Drawings

## PAL-AT Drawings

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500' - 2000' SPACING BETWEEN JUNCTION BOXES

PROTECTIVE COVER SUITABLE FOR TRAFFIC LOADS

CAGOLD CONNECTOR ASS'Y.
OR BUTT SPLICE CONNECTOR
W/ RTV AND SHRINK TUBING

NEMA 4X JUNCTION BOX

GRADE

BACKFILL MATERIAL
- SERVICE PIPE
- TFH LEAK DETECTION
  CABLE IN SLOTTED PVC PIPE

6" MIN. SAND/BACKFILL
6" MIN. SAND/BACKFILL

SECTION A - A

SLOTTED PVC
PIPE W/ SOCK

PVC CONDUIT

SERVICE PIPE

INSTALL 2-45° ELBOWS OR
1 LONG SWEEP ELBOW

NOTES:
1. BACKFILL MATERIAL MUST NOT HAVE ANY SHARP EDGES.
   SAND OR EQUIVALENT RECOMMENDED
2. CLAY OR SAND BACKFILL MATERIAL PROVIDES THE
   FASTEST RESPONSE TIME
3. MINIMUM OF 6" OF SAND/BACKFILL MATERIAL
   BELOW AND ABOVE CABLE REQUIRED.
4. DO NOT USE MECHANICAL COMPACTORS UNTIL
   THE CABLE IS COVERED WITH AT LEAST 12" OF
   FIRMLY COMPACTED BACKFILL
5. CABLE MAY BE OFFSET FROM THE CENTERLINE OF
   THE PIPE, BUT SHOULD BE LOCATED WITHIN 45' OF
   CENTER AS SHOWN IN SECTION A - A.
(TYP 4) ON BACK PANEL
INSTALLATION NOTES:

1. INSTALL PANELS AS SHOWN W/ M6 HARDWARE SUPPLIED
2. PROTECT/REMOVE SYSTEM BOARD IF ADDITIONAL HOLES DRILLED IN PAL-AT ENCLOSURE.
3. CONNECT WIRING
4. CONNECT EARTH GROUND AS SHOWN.
5. CONNECT 120 VAC POWER.
6. JUMPER CABLE TO SENSING STRING EXITS THE ZBP AS SHOWN.
7. INSTALL CONDUIT HUBS TO ENCLOSURE TO MAINTAIN REQUIRED TYPE RATING

PART NUMBER 8028070

120 VAC POWER

10/28/15 D.B. LD-1340-AA
INSTALLATION NOTES:

1. INSTALL PANELS AS SHOWN W/ M6 HARDWARE SUPPLIED
2. PROTECT/REMOVE SYSTEM BOARD IF ADDITIONAL HOLES DRILLED IN PAL-AT ENCLOSURE.
3. CONNECT WIRING
4. CONNECT EARTH GROUND AS SHOWN.
5. CONNECT 120 VAC POWER.
6. JUMPER CABLE TO SENSING STRING EXITS THE ZBP AS SHOWN.
7. INSTALL CONDUIT HUBS TO ENCLOSURE TO MAINTAIN REQUIRED TYPE RATING
INSTALLATION NOTES:

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2. PROTECT/REMOVE SYSTEM BOARD IF ADDITIONAL HOLES DRILLED IN ENCLOSURES.
3. CONNECT WIRING
4. CONNECT EARTH GROUND AS SHOWN.
5. CONNECT 120 VAC POWER.
6. JUMPER CABLE TO SENSING STRING EXITS THE ZBP AS SHOWN.
7. INSTALL CONDUIT HUBS TO ENCLOSURE TO MAINTAIN REQUIRED TYPE RATING
NOTES:
1. CABLES FROM THE PAL-AT PANEL TO THIS ENCLOSURE AND CABLES FROM THIS ENCLOSURE TO THE SENSING STRING MUST BE PROTECTED BY CONDUIT.
2. CONDUIT FITTINGS MUST BE APPROPRIATELY RATED AND INSTALLED TO MAINTAIN THE RATING OF THE ENCLOSURE.
3. CABLE FERRULES SHOULD BE FULLY INSERTED INTO TERMINAL BLOCKS.
4. THERE ARE NO USER SERVICEABLE PARTS INSIDE THE POTTED ZENER BARRIER ASSEMBLY. IF THE INTERNAL FUSE IS OPEN, THE BARRIER MUST BE REPLACED.
5. THE EXTERNAL FUSES ARE LITTLEFUSE 217-250, 5x20mm, 250mA, FAST-ACTING.

RECOMMENDED TORQUE
BONDING SCREWS 26lb-in (3.0 Nm)
TERMINALS 7lb-in (0.8 Nm)
PAL-AT AT50C - AT75C - AT100

CABLE CONNECTION

CABLE TO ORINARY LOCATIONS

OPTIONAL ZENER BARREI PANEL

NOTE

FM CONTROLLED DRAWING - REFER TO PPM2A-3LQ-MS-100

Finnacial

PAL-AT AND ZBP INSTALLATION

LD-1805-8A

NTS
NOTES:

1. ALLOW SLACK IN LEAK DETECTION CABLE TO INSTALL AND SERVICE CONNECTOR.

2. PIPE AND CONDUIT FITTINGS SUPPLIED BY INSTALLER
# Leak Detection Drawings

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<td>LD-8310</td>
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NOTES:

1. OUTPUT RELAY PANEL ASSEMBLY (ORP-16) IS SUPPLIED WITH ONE (1) RELAY MODULE (RM-4). A TOTAL OF FOUR (4) RELAY MODULES (RM-4) CAN BE INSTALLED.
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