The Series A-IEF Remote Display can be installed almost anywhere near a Series IEF flow transmitter or IEFB thermal energy meter. Both the indicator display (A-IEF-IDSP-RM) and the full functional display (A-IEF-FDSP-RM) have a maximum display cable length of 100 ft (30 m) to permit easy viewing of flow readings. The full functional display allows for convenient adjustment of configuration settings and allows the user to save the IEF or IEFB configuration settings to a computer for printing.

**FEATURES/BENEFITS**
- Full functional display can be used to set up the IEF/IEFB and adjust the settings if it is installed in a hard-to-reach location.
- Indicator display makes it convenient to read process values if the meter is inaccessible.
- Varying cable lengths of up to 100 ft (30 m) allows for flexible installation on a wall or pipe mount.
- Easy to install and wire in the field.

**APPLICATIONS**
- Mechanical rooms with a small footprint
- Hard-to-reach piping
- Boilers and chillers
- Chilled water
- Condenser water
- Make-up water
- Heating water
- Boiler feed water
- Steam condensate

**SPECIFICATIONS**
- **Temperature Limits:** Ambient: 4 to 158°F (-20 to 70°C); Storage: -40 to 185°F (-40 to 85°C).
- **Display:** 3.3” diagonal graphic LCD. Backlight (full display only).
- **Enclosure Material Housing:** Powder coated die cast aluminum.
- **Enclosure Rating:** NEMA 4X (IP66).
- **Electrical Connection:** Removable terminal blocks, #22 AWG (100 ft (30 m) max).
- **Mounting:** Wall or pipe mount.
- **Mounting Orientation:** Any orientation.
- **Weight:** 2.46 lbs (1.12kg).

**INCLUDED WITH THE REMOTE DISPLAY**
- Carefully unpack the shipping container of the remote display and remove the following items:
  1. Remote display with mounting bracket
  2. Pipe clamps
  3. 3 mm Allen wrench (not shown)
  4. Adapter PCBA board, screw and stand-off (not shown)

**ACCESSORIES**
- Model: A-IEF-CBL-50
- Plenum rated cable 50 ft (15.2 m)

**SELLABLE PARTS**
- Model: A-IEF-LID
- IEF blank replacement lid assembly

**RECOMMENDED INSTALLATION TOOLS**
- Philips #2 screwdriver
- 1/8” slotted screwdriver
- 5/16” nut driver or 1/4” slotted screwdriver (pipe mount installations)
- 1/4” nut driver (for stand-off installation)

**INSTALLATION**
The Series IEF/IEFB can support one display. If the IEF/IEFB has the local LCD display option (-LCD), the display will need to be replaced by a blank cover (blank cover offered separately, part number A-IEF-LID). The remote display must be connected to the IEF/IEFB flowmeter with an eight conductor shielded cable (maximum length of 100 ft (30 m)). The provided adapter PCBA board will need to be installed in the IEF/IEFB flowmeter to connect to the remote display cable. For installations where the remote display is attached to a pipe, the included pipe clamps should be used.

**Note:** The power to the IEF/IEFB must be turned off before installation of the remote display.

**Mounting the Remote Display**
Locate an appropriate location that allows for visibility of the remote display. The remote display is suitable for mounting on a flat surface or mounted to a pipe in any orientation; clamps are supplied for pipe sizes 3” to 12” (76.2 to 304.8 mm).

**Surface/Wall Mount**
To mount the remote display to a flat surface such as a wall, hold the remote display in the desired location, mark hole locations on the flat surface using the attached bracket as a template, drill holes and mount the remote display with screws suitable for surface and bracket slot dimensions.
Pipe Mount
To mount the remote display to a pipe, thread the pipe clamp through the appropriate slots on the mounting bracket as shown below in Figure 3.

Once the pipe clamps are in place, the remote display may be mounted in any orientation. See Figure 4 below for recommended orientations.

WIRING
Remote Display Cable Installation and Wiring
The cable connecting the remote display to the Series IEF or IEFB will wire into two removable terminal blocks located on the back of the remote display lid.

The cable will need to have a sufficient service loop inside the remote display for easy access [9” (22 cm) is recommended]. Similar to the IEF/IEFB, the cable wires should be stripped approximately 0.22 in (5.59 mm). A 1/8” slotted screwdriver can be used to tighten the terminal block screws. For Dwyer Instruments plenum cable A-IEF-CBL-X, the recommended colors codes are:

<table>
<thead>
<tr>
<th>Remote Display Terminal</th>
<th>Wire Color</th>
<th>Remote Display Terminal</th>
<th>Wire Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAT</td>
<td>Black</td>
<td>VCC</td>
<td>Yellow</td>
</tr>
<tr>
<td>CLK</td>
<td>Brown</td>
<td>VCC</td>
<td>Green</td>
</tr>
<tr>
<td>GND</td>
<td>Red</td>
<td>GND</td>
<td>Blue</td>
</tr>
<tr>
<td>VCC</td>
<td>Orange</td>
<td>VCC</td>
<td>Violet</td>
</tr>
</tbody>
</table>

Note: Refer to Figure 5 wiring diagram for proper wiring of remote display to IEF/IEFB.

IEF/IEFB Cable Installation (cable gland option):
If the IEF/IEFB has a cable gland option with a 2 hole grommet, insert the included 3 hole insert. First, disconnect the A and B cables from the IEF/IEFB terminal blocks. Fully loosen the cable gland nut onto the A and B cables. Remove the cables from the IEF/IEFB. Remove the two hole cable gland insert and install the included 3 hole cable gland insert. This will allow each cable to be installed in the IEF/IEFB. For easier installation, insert the remote display cable, the A cable, and the B cable at the same time. Connect the A and B cables to the IEF/IEFB terminal blocks (See the IEF/IEFB manual F-IEF-F or F-IEFB-F for details.) After connecting the A and B cables, the IEF/IEFB PCB adapter board can be installed.

Feed the remote display wiring cable into the Series IEF/IEFB housing through the grommet, as shown below. Connect to the removable terminal blocks located on the adapter board.

Once the wiring of the remote display is complete, install a blank cover on the IEF unit (not a LCD cover). Use a 3 mm hex key to tighten the four cover screws.

MAINTENANCE/REPAIR
Upon final installation of the Series IEF Remote Display, no routine maintenance is required. The display is not field serviceable and it is not possible to repair the unit. Field repair should not be attempted and may void warranty.

Power must be supplied to the IEF/IEFB prior to this unit being operational. For further instruction on display use refer to bulletin F-IEF-F or F-IEFB-F.