KDPWM SERIES
Wet Media Remote Pressure Transducer

RoHS Compliant   CE

NOTICE

- This product is a Class 2 device.
- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- Read and understand the instructions before installing this product.
- Turn off all power supplying equipment before working on it.
- The installer is responsible for conformance to all applicable codes.

No responsibility is assumed by Kele for any consequences arising out of the use of this material.
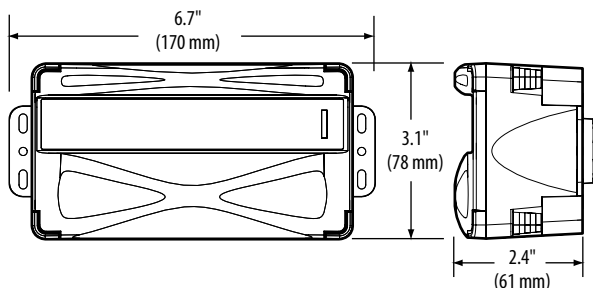
PRODUCT IDENTIFICATION

	Operational Range	Cable Length	Cable Type	
KDPWM	- ☐	- ☐	- ☐	- **LCD**

50 = 0-50 psig   06 = 6 ft (1.8 m)   A = Armored†
100 = 0-100 psig   10 = 10 ft (3.1 m)   N = Non-armored‡
250 = 0-250 psig   20 = 20 ft (6.1 m)

† Armored cable available only in 6 ft length.
‡ Non-armored cable only available only in 10 and 20 ft lengths.
Note: Extension of total cable length greater than 20 feet may result in reduced accuracy.

DIMENSIONS

6.7" (170 mm)
3.1" (78 mm)
2.4" (61 mm)

Installer's Specifications

Media Compatibility	17-4 PH stainless steel
Input Power	Class 2; 15 to 30VDC, 24VAC nom. 50/60 Hz*
Maximum Current Draw	DC: 125mA; AC: 280mA
Output	3-wire transmitter; user-selectable 4-20mA/0-5V/0-10V
Status Indication	Dual color LED
Proof Pressure	2x max. F.S. range**
Burst Pressure	5x max. F.S. range**
Accuracy at 25°C***	Ranges A and B: ±1% F.S. typical; Range C: ±1.5% F.S. typical; Range D: ±2% F.S. typical. (For less than or equal to 20 ft. (6.1 m) cable length)
Surge Damping	Electronic; 1 or 5 second averaging
Long Term Stability	±0.25%
Zero Offset (Bidirectional and Port Swap Modes Only)	0.5%
Fittings	¼" NPT male thread, stainless steel 17-4 PH; Overall thread length: 0.59" (conforms to ANSI/ASME B1.20.1 standard)

Operational Ranges

0-50 psig	5/10/25/50 psid
0-100 psig	10/20/50/100 psid
0-250 psig	25/50/125/250 psid

Operating Conditions

Temperature Compensated Range	0° to 50°C (32° to 122°F); TC Zero <1.5% of product F.S. per sensor; TC Span <1.5% of product F.S. per sensor
Sensor Operating Range	-20° to 85°C (-4° to 185°F)
Operating Environment	-10° to 50°C (14° to 122°F); 10-90% RH noncondensing

Compliance Information

Approvals	RoHS, IP65, CE

* VFD systems and system wiring generate fields that can disrupt electrical devices. Ensure that these fields are minimized and are not affecting the sensor or sensor wiring.
** Determined by operational range (psig).
*** Accuracy combines linearity, hysteresis, and repeatability.

INSTALLATION

⚠ **Disconnect power from the power source before beginning the installation.**

Observe precautions for handling static sensitive devices to avoid damage to the circuitry that is not covered under the factory warranty.

1. Mount the housing using the included screws. Avoid locations where excessive vibrations occur.

2. Remove the housing cover by pressing the corner tabs. There are two tabs on each side of the housing. One side is shown below.

*Press tabs to remove cover (2 tabs per side)*
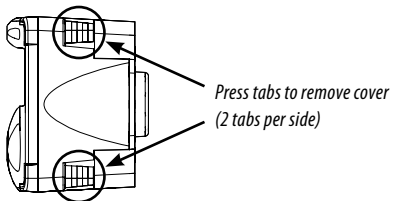
3. Run the digital control and power source wiring and connect to the left-most terminal block.

4. The sensors and monitor assembly are matched at the factory and calibrated as a unit. They must be kept paired to obtain the accuracy stated in the product specifications. Verify that the serial numbers on the sensors match the serial number on the main housing.

Main Housing serial number located on label on the top of the housing
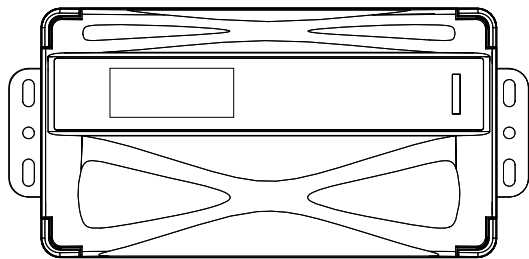
Sensor serial numbers located on the sensor labels
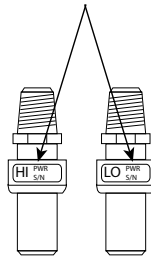
5. Run wires from the remote pressure sensor cables and connect to the pair of 4-terminal blocks at the right side of the board. To maintain the correct calibration, it is important not to confuse the high side and the low side. To assist, the sensors are labeled, "HI" and "LO."
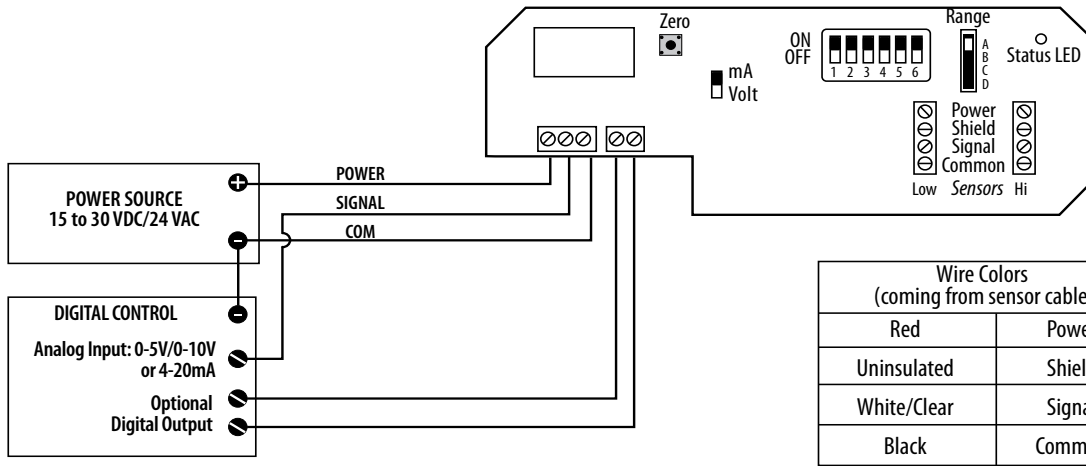
Wire Colors (coming from sensor cable)

Red	Power
Uninsulated	Shield
White/Clear	Signal
Black	Common

	Range			
Model	A	B	C	D
0-50 psig	50	25	10	5
0-100 psig	100	50	20	10
0-250 psig	250	125	50	25

DIP Switches

Num	Function	Off/On*
1	Damping	Fast/Slow
2	Test	Operate/Test
3	Mode	Normal/Bidirec.
4	Analog	Normal/Reverse
5	Port	Normal/Swap
6	Voltage Out**	0-10V/0-5V

"Off" position is the default setting for all DIP switches.
**Ignored in mA mode.

6. If the sensors are installed on the wrong side, they can be reversed in one of two ways:
   - Swap the cables at the sensor end.
   - Swap the headers at the control unit end.

7. Adjust the switches on the board as desired.

8. Reconnect power to the power source. Check that the green LED illuminates, indicating normal operation. If not, check the wiring.

9. Re-affix the cover onto the housing, ensuring that the cover is properly seated. Do not operate the PWR without the housing cover in place.

10. Choose sensor mounting locations that minimize cable length. Use plumbing connections of appropriate "tees" or equivalent, made of compatible material. Observe safety precautions for plumbing connections. Release pressure from the system. Tighten sensor connections according to ANSI B1.20.3 (hand tighten plus one turn).

CONFIGURATION

Test Mode

Test mode overrides the output to full-scale. If the KDPWM is configured for current (mA) operation, Test mode sets the output to 20.0 mA. If configured for voltage (VDC) operation, Test mode sets the output to 5.0 VDC or 10.0 VDC (depending on the position of the output selection switch).

Status LED

LED	Status
Solid Green	Normal operation.
Flashing Green	Low > High; use port swap jumper or bidirectional mode.
Solid Red	Differential pressure is too high; select a higher pressure range.
Flashing Red	Gauge pressure over sensor range; reduce line pressure or replace with a higher range device.
Alternating Red/Green Flash	Sensor input is below sensor range. Verify that the sensor is connected correctly.

Auto Zero Function

To automatically reset the output to zero pressure, press and hold the Zero push-button for 2 seconds or provide contact closure on the auxiliary remote tare terminal. To protect the unit from accidental tare, this feature is enabled only when the detected pressure is within 5% of factory calibration.