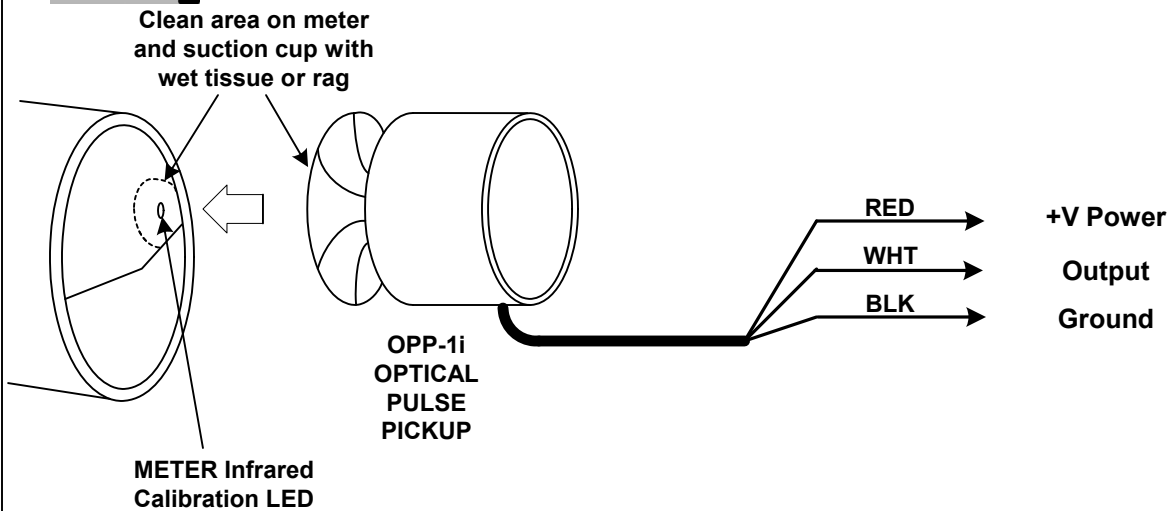




INSTRUCTION SHEET

OPP-1i OPTICAL PULSE PICKUP



GENERAL - The OPP-1i is an optical pulse pickup that uses the meter's infrared calibration pulse to read energy consumed by the building on which the meter is mounted. The OPP-1i uses an external low voltage DC source up to +15VDC for power. Each time the meter's optical calibration pulse flashes, the OPP-1i picks up the flash and converts it to one Form A (2-wire) pulse on the pulse output. Pulses may be counted for energy consumption, or timed to calculate demand. No modification of pulse timing is done by the OPP-1i. As long as the IR LED light is detected the collector of the output transistor (white wire) will be held low. An external pull-up resistor is required.

MOUNTING - The OPP-1i mounts on the meter's face directly in line with the Infrared calibration LED, snapping into place using the suction cup. Carefully orient the center of the OPP-1i's suction cup with the meter's calibration LED so that they are directly lined up. Because the OPP-1i's detector is recessed in the body of the housing, no pulse will be detected if the sensor is misaligned with the IR LED.

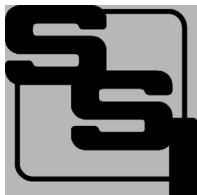
POWER INPUT - Connect a low DC voltage source to the Red wire. Connect the Black wire to ground.

INPUT - Connect the OPP-1i to the instrumentation receiving the pulse. Connect the black wire to the Ground terminal, the white wire to the pulse input terminal and the red wire to the power supply terminal. Maximum distance between the OPP-1i and the receiving equipment is 25 feet.

OUTPUT - An open-collector transistor output (white wire) is provided on the OPP-1i. A pull-up resistor may be required between the output line and the power supply, if the pulse receiving equipment does not already have a "pull-up" input. A 10K ohm, 1/4W 5% should be sufficient.

OPERATION - Once the IR light beam is properly aligned, pulses will occur on the green wire directly proportional to the pulses as they occur from the IR LED source. This system is designed for Itron Sentinel and Centron electric meters as well as other IR LED sources that continuously output a calibration pulse. Care should be taken to insure that high ambient light conditions do not affect the OPP-1i's ability to see the Infrared pulse. Shade the meter if necessary from direct sunlight with a dark cloth or other such opaque material.

NOTE - For self-contained meters the pulse constant is generally 1 watt-hour per pulse. For instrument rated meters this value must be multiplied by the transformer factor (or multiplier) shown on the meter or electric bill. For assistance on this matter, contact Solid State Instruments at (888)272-9336



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