

NUFLO™

Low Power Pre-Amplifier

Turbine flow meters offer the significant ability to provide remote readings; however, noisy environments can cause erroneous or false readings at the remote terminals. The easily installed NuFlo™ Low Power Pre-Amplifier helps solve the problem of noise when shielded signal cables cannot effectively eliminate them.

Electrical noise can cause erroneous readings when the noise level equals or exceeds the meter output signal amplitude, which generally is very low (in millivolts). The remote reading unit might also record noise as signal output when the flow meter is not transmitting.

The Low Power Pre-Amplifier raises the turbine flow meter signal level at the metering point to a relatively high level signal (6-8 volts). Thus, the receiver can discriminate between signal and noise and register only true signals at the remote location.

The flow meter transmits its low level signal through a pair of conductors to a remote reading unit. Shielded signal cables can help keep noise out of this system or reduce the noise level. However, a high noise level or the length of the transmission cable can make shielding ineffective. The pre-amplifier helps eliminate noise problems in these instances.

Advantages

- No local power source required. Power is supplied by the remote reading unit over the same wires that conduct the flow meter frequency.
- Low power consumption permits operation over virtually unlimited transmission distances.
- Requires single pair of wires between preamplifier and receiver.
- Suitable for use in most hazardous areas.
- Can be installed without special tools or equipment – all parts have plug-in connectors or terminal screws.
- Directly compatible with signal receivers having 12-28VDC power available.



Specifications

Housing:

- Feraloy with copper free aluminum cover, complete with union for connection to turbine flow meter

Connections:

- 1-in. (25.4 mm) rigid conduit, female

Power Required:

- 12-28VDC @ 10mA

Input Signal:

- 20mV – 30 V @ 5 Hz - 3,000 Hz, adjustable input sensitivity

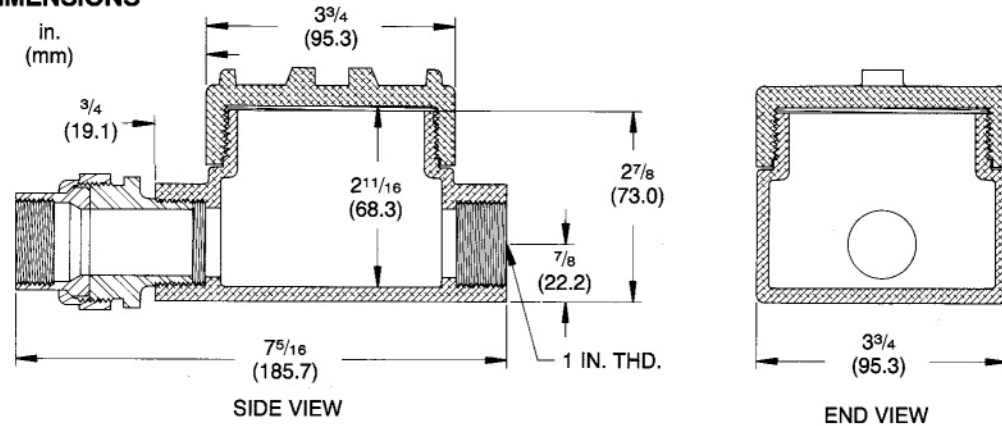
Output:

- 6-8 volt square wave across a 1,000 ohm resistor with 12 volt power supply at input signal frequency

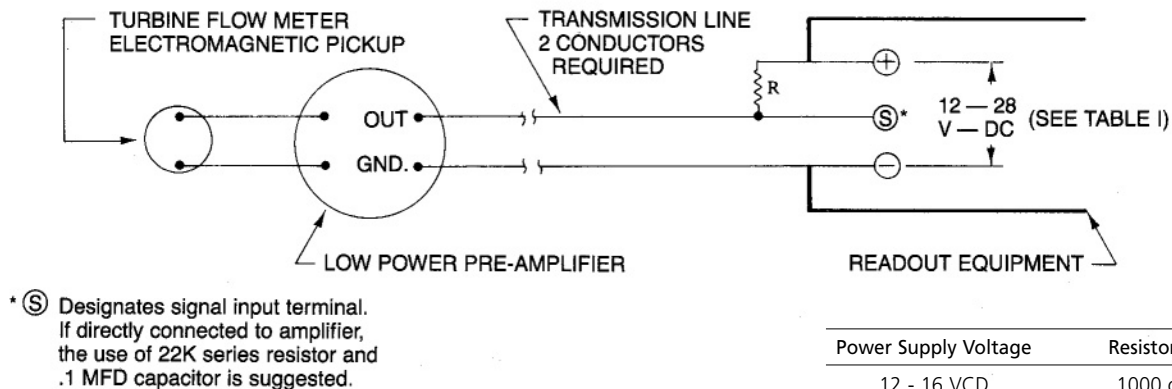
Approvals

- NEC Class I, Groups C, D – Class II, Groups E, F, G – Class III
- CSA Approved

DIMENSIONS



INSTALLATION DIAGRAM



Power Supply Voltage	Resistor "R"
12 - 16 VDC	1000 ohm
18 - 22 VDC	1500 ohm
22 - 28 VDC	2200 ohm

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