

WEATHER INSTRUMENTS A70 SERIES

DESCRIPTION

The **A70 Series Weather Instruments** with signal conditioning provide a 4-20 mA output proportional to wind speed (**A70-SL**), wind direction (**A70-DL**), barometric pressure (**A70-PL**), or rainfall (**A70-RL**). The **A70 Series** provides the user with weather information that can be used for monitoring purposes or as an input to control systems.

FEATURES

- *Rugged construction*
- *Reliable operation*
- *Industry standard 4-20 mA output*
- *Track-mounted transmitter*



A96
Lightning Arrestor

APPLICATION

Wind Speed (A70-SL)

The wind speed is measured with a three-cup anemometer, and a 4-20 mA output signal proportional to 0-100 mph is generated. Accuracy from 3-9 mph is ± 1 mph; above 10 mph, accuracy is $\pm 5\%$ of reading. The **A70-SL** is supplied with 60' (18.28m) of cable and a 10" (25.40 cm) stub mast for mounting the anemometer.

Wind Direction (A70-DL)

Wind direction is measured with a precision potentiometric wind vane that produces a signal proportional to the azimuth of the wind. This signal is converted to a 4-20 mA output over 0 to 360 degrees. The vane has a four-degree deadband on either side of north. The **A70-DL** is provided with 60' (18.28m) of cable and an S mast for mounting.

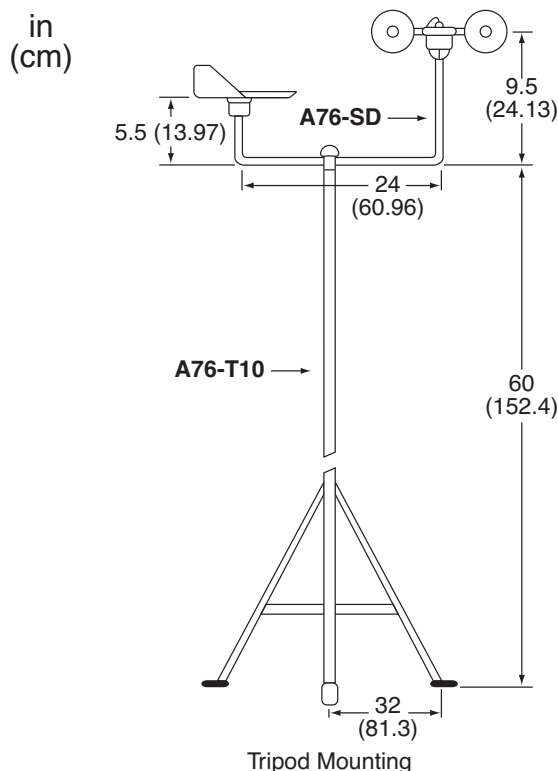
Barometric Pressure (A70-PL)

The **A70-PL** senses barometric pressure by an integrated silicon, absolute pressure sensor with integral temperature compensation. It outputs a 4-20 mA signal over 27" to 31" Hg. Accuracy is ± 0.05 " Hg. The sensor is mounted to the transmitter board, and a 3/16" (0.48 cm) tube may be attached to the sensor to provide remote pressure sensing.

Rainfall (A70-RL)

The **A70-RL** utilizes tipping bucket technology to measure rainfall and outputs a 4-20 mA signal over a range of 0" to 1" (0 to 2.5 cm). When the output reaches 20 mA (1"), it resets to 4 mA, and the cycle begins over again. Accuracy is $\pm 4\%$. The sensor includes 50' (15.24m) of cable.

ASSEMBLY / DIMENSIONS



GAS & SPECIALTY SENSORS

WEATHER INSTRUMENTS

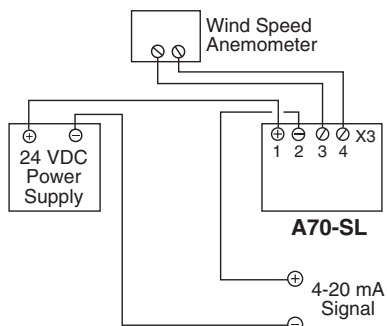
A70 SERIES



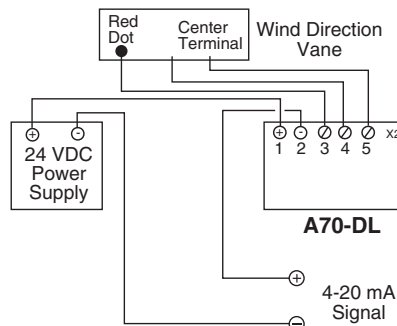
COMMON SPECIFICATIONS

Operating power	12-24 VDC, 30 mA max
Output	4-20 mA
Maximum loop resistance	(operating voltage - 10) x 50Ω
Signal conditioner accuracy	700Ω @ 24 VDC ±1%

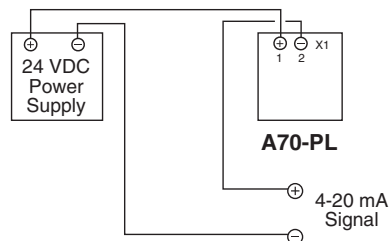
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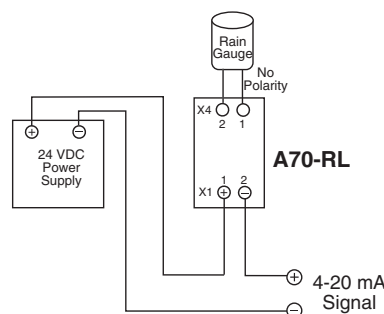
Wind Speed



Wind Direction



Barometric Pressure



Rainfall

ORDERING INFORMATION

MODEL	DESCRIPTION
A70-SL	Wind speed transmitter
A70-DL	Wind direction transmitter
A70-PL	Barometric pressure transmitter
A70-SDL	Wind speed/direction transmitters
A70-SDPL	Wind speed/direction and barometric pressure transmitters
A70-RL	Rainfall transmitter

ACCESSORIES

A76-T10	Tripod tower with mast (10'3m high total) for wind speed and direction sensors
A76-SD	Mounting bracket for wind speed and direction transmitters
A96-100P	Lightning arrestor for wind speed sensor (includes pipe-mounting clamp)
A96-200P	Lightning arrestor for wind direction sensor (includes pipe-mounting clamp)

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GAS & SPECIALTY SENSORS