

The Senaco AS100 Acoustic Sensor detects changes in high frequency sound waves from equipment and materials in motion. It detects and reacts instantly to changes in solids flow to warn of blockages, product absence or equipment failure such as burst filter bags. This allows an operator to take early preventative action and avoid costly damage. Common applications include pellets, powders and most bulk solids in pipes, chutes, vibratory feeders, pneumatic conveyors or aerated gravity flow systems.



Operating with a Senaco CU 02 control unit, the system detects conditions of high flow, low flow or no flow. It can be added to a control loop via a 4-20mA output. Two relays are fully programmable and independent of each other, and can be used to operate an alarm or control device. With no moving parts, and a type 304 stainless steel housing sealed against dust and moisture, this non-invasive unit requires little or no maintenance. With a dual operating range, the sensor offers an exceptional wide range of application capabilities.

### Product Features

- Non-invasive
- Screw in, bolt on, weld or bond in place
- Analog output
- High and low sensitivity range of operation

## Technical Specifications

#### Model

- standard: standard operating temperature range
- extended: extended operating temperature range

#### Power

- 20 to 30 Vdc
- 18 mA (typical)

#### Operating Temperature

- standard: -20 to 80°C (-4 to 176°F)
- extended: -40 to 85°C (-40 to 185°F)

#### Relative Sensitivity

- 0.5% / °C of reading, average over the operating range

#### Output

- analog, 0.08 to 10 Vdc nominal, 100 K $\Omega$  minimum load impedance

#### Construction

- housing: 304 stainless steel
- cable:
  - standard: 4 m (13 ft.) cable, PVC jacketed, 3 twisted pairs, 24 AWG, shielded
  - extended: 4 m (13 ft.) cable, thermoplastic elastomer jacketed, 6 conductor, 24 AWG conductor, shielded

#### Ingress Protection

- IP 68 (waterproof)

#### Weight

- 0.4 kg (1 lb.)

#### Approvals

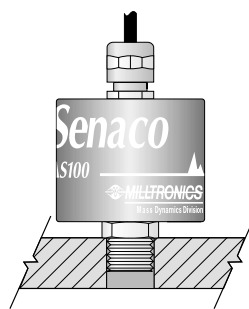
- CE\*

## Mounting



#### Clearance Hole

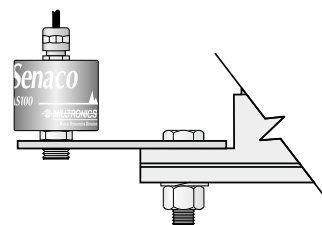
Insert mounting post through hole in device being monitored and fasten with customer-supplied washers and nut.



#### Drill and Tap

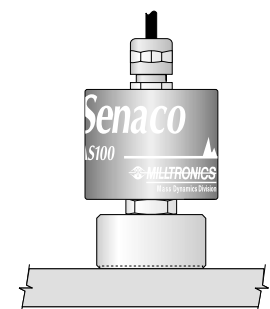
Screw mounting post into threaded hole in device being monitored.

### Accessories



#### Extension Tab

Screw Sensor into threaded hole of tab, and fasten onto device being monitored.



#### Mounting Disc

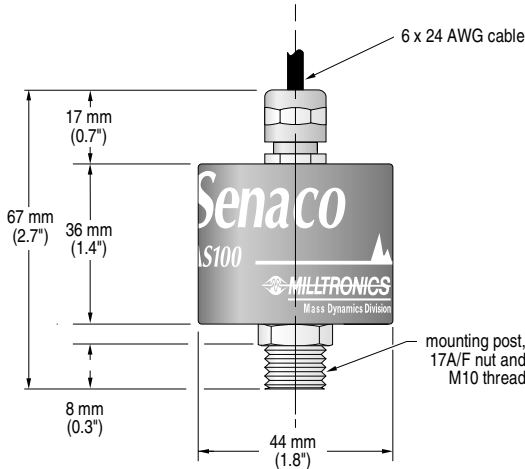
Screw Sensor into disc, after welding or bonding disc onto device being monitored.

\* EMC performance available upon request.

Specifications are subject to change without notice.

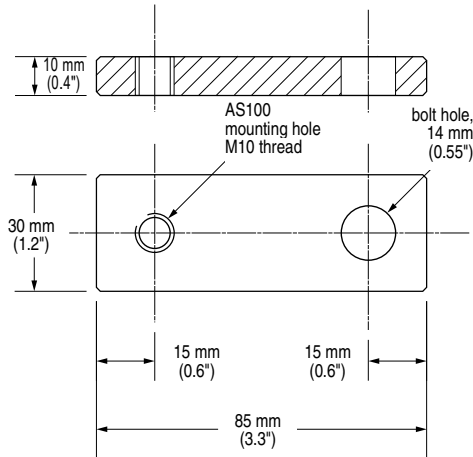
# Senaco AS100 Acoustic Sensor

## Dimensions

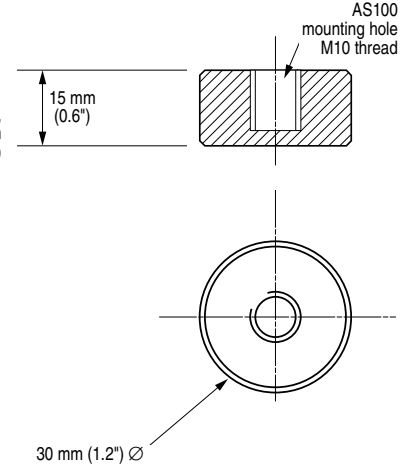


### Accessories:

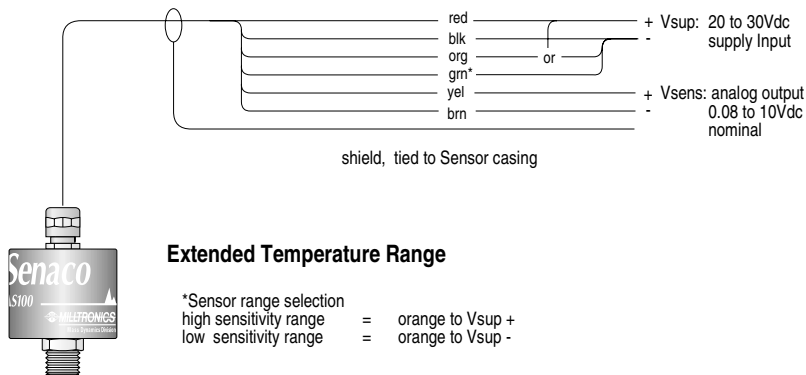
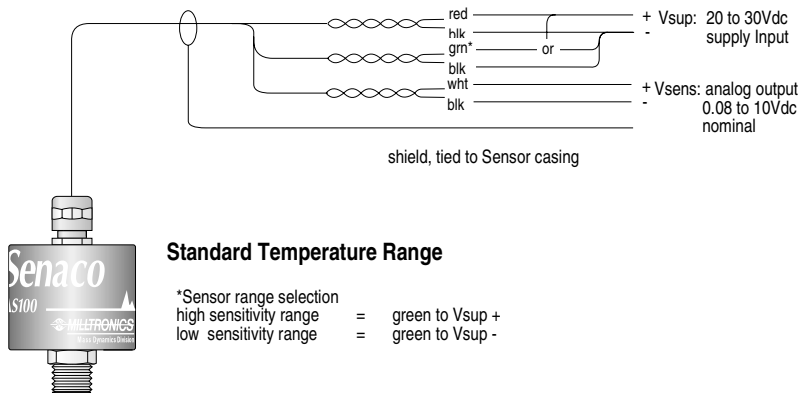
#### Extension Tab – Bolt on



#### Mounting Disc – Glue on



## Wiring



### Interconnection

The longer the cable, the more susceptible it is to noise and earth loops. It is therefore recommended to use cable with heavy gauge conductors and good RF/electrical shielding (copper braid rather than drain and foil). A proper junction box close to the sensor is an ideal location not only to extend the cable, but also to configure the wiring for high or low sensitivity range operation.

The following table provides a guideline for suitable wire gauges where distances are considerable.

Max. distance between Sensor and supply (24 V or Control Unit)

AWG	wire size		distance	
	mm	mm <sup>2</sup> *	metres	feet
24	7 x 0.20	0.22	500	1600
22	7 x 0.25	0.35	800	2600
20	10 x 0.25	0.5	1200	3900



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