



## SRI Chute Height Sensor

**Sugar Research International manufactures a range of chute height sensors - essential components for the control of sugar mill throughput via mill speed, carrier speed, or Donnelly chute settings.**

The SRI chute height sensor measures the conductivity of material surrounding an array of electrodes mounted vertically in a Donnelly chute. The microprocessor-based controller determines the number of covered electrodes to provide a pseudo-analogue output, and applies a number of proprietary algorithms to minimise the impact of false readings.

- ❑ Chute height sensors are available in 120/240VAC and 24VDC supply variants.
- ❑ Optional relay outputs (8 or 16) provide height indication or alarm monitoring independent of the mill control system.
- ❑ Each chute height sensor can monitor one chute (up to 16 electrodes) or two chutes (up to 8 electrodes each). One 4-20mA analogue output is provided for each chute, and each chute is independently configured.



## SRI Chute Height Sensor specifications

### Chute height sensor:

- Supply voltage - 24VDC or optional 120/240VAC;
- Analogue outputs - 2 x 4-20mA (900Ω load resistance, isolated from supply);
- Optional relay outputs - 8 or 16 SPDT (240VAC or 30VDC at 2A rated);
- Weight 6kg nominal;
- LCD display - 2 lines x 16 alphanumeric characters;
- Dimensions 250W x 300H x 150D;
- Protection class IP65 (stainless steel);
- Operating environment 5-50°C, 20-70% relative humidity.

### Electrodes:

- Electrodes per chute - 4-16, in steps of 2 (single chute mode), 4-8 in steps of 2 (dual chute mode);
- Preferred electrode 90mm diameter, low profile, stainless steel;
- Minimum bagasse moisture content - 45%;
- Mounting - insulating spacers or polycarbonate sheet (electrically isolated from chute);
- Maximum cable length to chute height sensor - 25m;
- Detection frequency - 1.92kHz;
- Sensor scan rate - 24Hz.

### Chute height sensor calibration:

SRI chute height sensors must be calibrated in-situ for best operation. No additional equipment is required, as all configuration and calibration tasks use the LCD display and keypad within the chute height sensor enclosure.

More information at our website:  
[http://www.sri.org.au/  
chute-height-sensor](http://www.sri.org.au/chute-height-sensor).



Outside Australia, SRI products and services are available through a selected group of strategic partners:

Image courtesy of EID Parry (India) Ltd.