

PREFACE

Acorn Controls offers Signal Converter for OEMs for manufacturing world class EMFM products.

Acorn has been manufacturing EMFM signal converters for OEMs for more than a decade. We have a versatile and stable design. Further, Acorn can optimize optional features such as choice of operating power, Optional RS485 module, RS485 register map, etc. Acorn's Signal converter uses **Constant Current Bipolar Excitation** of Coils and thus adaptable to any Magflow Sensor heads. It has a High sensitivity / stable amplifier with variable Gain settings to accommodate wide signal sensitivity EMFM Sensors. **Surge protection on Input amplifier** is our no-compromise specification.

Similarly, our RS485 and 4 to 20mA outputs are galvanically isolated.

We can give **External pre-amp** for mounting on the Maxflow head, enabling Sensor to Converter distance of up to 100 mtrs without special cables, to cater to all OEM needs. We also supply high quality Signal cable for use with other

Salient features for OEM's :

- **Weatherproof Circular Transmitter housing , powder painted**
- **State of art technology from experienced manufacturers**
- **Zero maintenance and High-quality service supported**
- **Manufacturer's warranty against manufacturing defects**
- **Fully programmable & Electrically calibrated Electronics**
- **Compatible with all types of Magflow heads and Compatibility**
- **Fully Indigenously manufactured product**



Salient specification to make a competitive product :

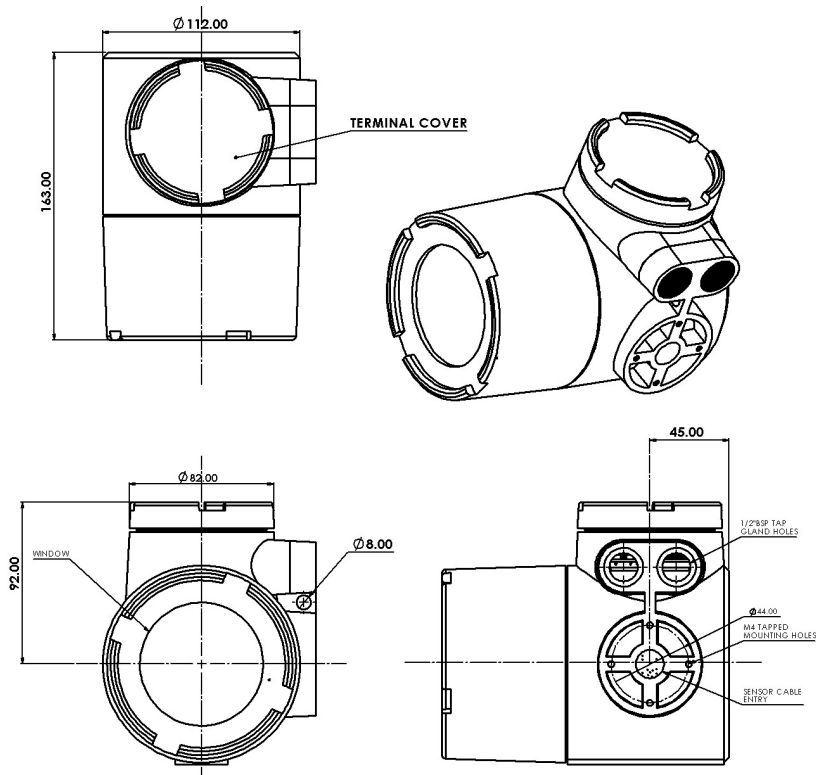
- **Choice of Power supply-**
 - **Mains Transformer based for Poor Mains conditions**
 - **SMPS Based for Normal Mains Supply conditions**
 - **24Vdc , Battery operated option**
- **Isolated 4 to 20mA active output**
- **Isolated RS485 -MODBUS /RTU protocol, not offered in Chinese makes**
- **Pulse output Solid state o/p or Batch Control relay o/p**
- **Remote Amplifier on magflow heads for remote sensor application, upto 100mtrs. not offered in Chinese makes**
- **Special Signal cable- - PU insulated abrasion resistant Cable. not offered by Chinese makes**
- **16X2 A/N backlit display & Three key Keyboard interface with Magnet operated keys**
- **Velocity Simulator (accessory) for OEM available not offered in Chinese makes**
- **GPRS connectivity option with Cloud service not offered in Chinese makes**

OEMs will get full technical support and guaranteed product at a competitive price. OEM's need not worry about setting-up their electronics manufacturing facility where economics of scale does not work out well. We give Electrically calibrated , Environmentally Stress tested converter , **OEM's can concentrate on Sensor production and calibration only**

SPECIFICATIONS :

1	Operating Power (Options)	AC 230Vac +/-15% with Transformer isolation AC 100Vac to 240Vac with SMPS DC : 20 to 30 Vdc Power consumption <3VA
2	Coil current	+/- 100mA (For other values , please contact us.) Max coil resistance 140ohms for 100mA coil current
3	Coil Drive	Switching Frequency at 12.5Hz or 6.25 Hz programmable
4	Sensitivity	standard 60uV per m/sec,
5	Preamp- Gain	special gains possible to change sensitivity figurers, consult us
6	Signal input from Sensor	Input impedance : suitable for liquid> 10uS/cm Protection against spikes 250V, (difference mode and common mode w.r.t Earth) Sensor common is connected to Earth
7	Damping Time	3 to 99 seconds (programmable)
8	Electrical Accuracy	+/- 0.5% of velocity from 0.5 m/Sec to 10m/sec
9	Current output	4 to 20 mA in to 600 ohms max, Galvanically isolated 500Vdc to Chassis earth.
10	RS485 output	A & B, Galvanically isolated to 500Vdc from earth and power supply
11	Operating conditions	Operating : 0 to 55 °C , Storage : -10 °C to 60 °CC , Max RH =98% non condensing
12	Chassis	Withdrawable for servicing
13	Dimensions & Weight	Converter chassis as per drawing below

DIMENSIONS:



Manufactured by :

ACORN CONTROLS PVT.LTD. 6-Mayuresh Apts.,104-Mayur Colony, Kothrud, Pune 411 038

e-mail : sales@acorncontrols.in , acorncontrols@gmail.com

LL : +91 20 2542 2057 __M : +91 97663 56756 web: www.acorncontrols.in