

MOTTECH SMART CARD

NEW MULTI-FUNCTIONAL ELECTRONIC BOARD

Connect and monitor an extended range of sensor types with the new Mottech multi-functional electronic Smart Card

The Mottech Smart Card provides a number of options in one card: an A to D converter, Pulse Splitter, Pulse Divider, and soon an interface for sensors that use communication protocols. The Smart Card easily integrates into Motorola IRRInet controllers, or can be supplied as an autonomous unit.



The Mottech Smart Card offers

EXCEPTIONALLY LOW ENERGY CONSUMPTION

Thanks to the card's energy-saving capability, the Mottech Smart Card works on the same power source as the Piccolo XR (6V battery and 60mA solar panel), IRRInet M, and other Motorola controllers.

No need for an additional battery, solar panel or charger.

Wide range of input voltages:

The Smart Card works with a wide range of input voltages, from 5.5VDC to 14.5VDC



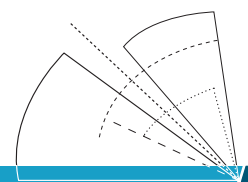
Easy Integration

The Mottech smart card can be supplied as:

- An integral part of the IRRInet ACE, IRRInet M, Piccolo XR and Piccolo RTU
- An independent autonomous unit

Operation Modes for Managing Energy Consumption

- ALWAYS OPEN - Continuous sampling, with constant energy consumption
- OPEN 1-MINUTE - Sampling every 1 minute, for an energy-saving mode
- OPEN 5-MINUTE - Sampling every 5 minutes, for a super energy efficient mode



Technical Specifications

- **Power IN** – 5.5VDC to 14.5VDC, compatible with Motorola IRRInet units power source
- **Sensor IN:**
 - Option 1 – For sensors that supply their own excitation current
 - Option 2 – For sensors with no power supply; the Smart Card will supply the power to the sensor
- **Pulse IN** – Dry contact, pulse width ≥ 20 ms, pulse frequency: 0–20,000p/h
- **Pulse OUT** – Isolated, dry contact pulses
 - Pulse Out 1&2 work in parallel;
 - Options 1-8: pulse width of 150ms
- **Board Dimension** – 9.3 cm X 7 cm

Features

- 8-option switch (next version: 16-option switch)
- No need for external power supply source
- Smart Card power- 5.5VDC to 14.5VDC
- Power Out Sensor - 18VDC
- Duplicate individually isolated pulses outputs
- Divides high-frequency input pulses
- 2 output pulse frequency ranges

Smart Card - 8-Option Switch

1. **Always open high** - Analog to digital converter – the Smart Card provides power to and reads the sensor every second. If the sensor needs power, the Smart Card will supply 18VDC. Pulse rate: 400 – 3600p/h.
 2. **Always open low** - Analog to digital converter - the Smart Card provides power to and reads the sensor every second. If the sensor needs power, the Smart Card will supply 18VDC. Pulse rate: 40 – 360p/h.
 3. **Open 1 minute - high** – Analog to digital converter – the Smart Card provides power to and reads the sensor every minute and changes the pulse rate accordingly. Pulse rate: 400 – 3600p/h.
 4. **Open 1 minute - low** – Analog to digital converter - the Smart Card provides power to and reads the sensor every minute and changes the pulse rate accordingly. Pulse rate: 40 – 360p/h.
 5. **Open 5 minute - high** – Analog to digital converter - the Smart Card provides power to and reads the sensor every 5 minutes and changes the pulse rate accordingly. Pulse rate: 400 – 3600p/h.
 6. **Open 5 minute - Low** – Analog to digital converter - the Smart Card provides power to and reads the sensor every 5 minutes and changes the pulse rate accordingly. Pulse rate: 40 – 360p/h.
 7. **Pulse splitter** - Pulse devices like water meters are connected to the Smart Card dry contact (pulse width: 20ms or none). The Smart Card provides the same frequency pulses (pulse width: 150ms) for Out 1 & 2 in parallel, individually isolated.
 8. **Pulse divider** – High-frequency pulse devices like wind speed sensors (up to 18,000 p/h) are connected to the Smart Card dry contact (pulse width: 20ms or none) and the Smart Card provides dry contact pulses by dividing the frequency by 10, with a pulse width of 150ms. For example, if Pulse In is 12,000p/h, then Pulse Out will be 1,200p/h.
- **High option** are suitable for IRRInet ACE, M and Piccolo XR
 - **Low option** are suitable for Piccolo RTU
 - **All the options use the pulse splitter**, allowing two different controllers to read the same sensor