# Dragonfly v2.0

## Observatory Controller

Ethernet relay and sensor controller for remote roll-off roof observatories.

| 8 | 8 | 10/100 | 12 V DC |
|---|---|---|---|
| RELAYS | SENSOR INPUTS | ETHERNET (MBIT/S) | NOMINAL SUPPLY |

### CONTROLLER AND INPUTS

| | |
|---|---|
| **Relay channels** | 8: four NO/NC + four NO |
| **Sensor channels** | 8: analogue and digital readout |
| **Sensor protection** | Littelfuse 600R160UR resettable PTC |
| **Network** | 10/100 Mbit Ethernet; TCP/IPv4 |
| **DC power input** | 12 V DC nominal; up to 24 V DC |
| **Current draw** | Less than 1 A |
| **Power connector** | 5.5 / 2.1 mm jack; centre positive |
| **Controller electronics** | AT91SAM7XC256 and Raspberry Pi model B (v2) |
| **Enclosure / earth** | Folded aluminium; earth via any of 16 earth plugs |
| **Dimensions** | 145 x 60 x 245 mm |
| **Mounting** | DIN rail compatible (optional) |

### RELAY SWITCHING SPECIFICATIONS

| | |
|---|---|
| **Relay model** | Panasonic JS1-5V-F |
| **Max. AC voltage** | 250 V AC |
| **Max. DC voltage** | 100 V DC |
| **Max. AC current** | 10 A |
| **Max. DC current** | 5 A |

### CONTROL, AUTOMATION AND SOFTWARE

- Local web interface and Windows control software
- Customisable roof open/close logic and safety checks
- Autonomous macros; sensor and relay event actions
- CloudWatcher weather-state integration
- ZeroConf remote access; Android and iOS apps
- ASCOM roof/dome and switch; INDIGO and INDIlib
- Three-level password security; relay restrictions
- Direct LAN parking for supported network mounts

### SUPPLY AND INSTALLATION NOTES

Included: Dragonfly controller and 8 male banana connectors. Power supply not included.

Installation: Dedicated DC supply recommended. Enclosure must be earthed.