Avantis™ TI and Micro - Datasheet

Avantis TI

Avantis Micro

The AVANTIS range consists of a single zone, multi-suppression capable miniature panel and a central 4.3" touchscreen information point.

The MICRO can be installed as a standalone suppression panel with minimal signalling and configurability. It can also be placed in a digitally addressable MODBUS network alongside a Ti to form a system that offers superior signalling, ease of use and configurability.

The MICRO has a single detection circuit and 2 suppression system outputs (both of the outputs are capable of operating 3 Stat-x units or 1 K-Series gas generator). There is an internal sounder and a single circuit powered sounder circuit. Two signalling relays capable of switching 5A at 28VDC or 100mA at 200VDC. The fault and fire outputs are limited to 1A continuous.

The MICRO consists of a single PCB mounted inside an IP65 enclosure. An onboard 'CapSense' touch technology manual release is protected and guarded by a tear off membrane which when removed gives access to a Capacitance switch. Attached to the panel fascia is a tough tactile membrane with 3 push buttons (Disable, Silence and Reset) and 4 LEDs (Fire, Fault, Healthy and Battery). When the panel fascia is removed, the entire electronics can be safely held in the palm of your hand (including batteries) with all the wiring connections easily accessible with screw terminals.

The Micro has 3 possible sources of power supply options built in as standard to meet the broad range of user requirements. These consist of:

1. 100-240VAC Fused mains,

2. 7-28VDC External power supply

3. 2 x 1.5 VDC Non-rechargeable Lithium-Ion AAA batteries.

All three power supplies can be installed at once forming a system that is very resilient to power loss. Each individual supply can also be installed separately depending on user requirements. When using external power, the internal batteries are isolated from the circuit, giving a 10 day fully operational battery back-up facility in the event of external power failure.

It is important to remember that the panel can have mains electricity as source power so safety should be observed at all times when opening and working inside the panel. Traditional Manual Release CP's can be installed on the zone detection circuit should even more flexibility be required.

To provide the MICRO with greater onsite programmability the AVANTIS Ti user interface module is used. This consists of a custom injection moulded enclosure and 4.3" resistive touchscreen providing the most modern looking front end information point possible.

The Avantis Ti provides a cutting edge user interface allowing programing, monitoring and alarm warnings of fire and fault conditions. Plus service schedule alarm notification. The Ti can be connected with up to eight Avantis Micro units on a single data/power cable. There will be multiple language user options available.

With an eye on the future the MICRO already has inbuilt WIFI and Bluetooth capability which will enable localised interrogation via the upcoming Avantis APP and eventually 'over the air' update, cloud connection and remote user configurability.

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Features

• Modular design allows up to 8 connected MICROs providing an 8-zone system. *

• Single Detection Zone. (None powered detectors)

• Deep Sleep mode allows up to 380 days on batteries alone. From mains power fail as back up or when using battery as primary Power Source.

• Up to 6 x Stat-X and 2 x K-Series gas generators.

• On panel, capacitive manual release.

• External sounder circuit.

• Multi-supply power system, 100-240VAC, 7-28V DC and AAA batteries.

• Unique sleek aesthetics.

• Miniature, indiscernible modern design.

• Non-volatile event log.

• Configurable time release delays. *

• External Disable or Hold OFF mode via switch input.

• IP65.

• 4.3" resistive touchscreen. *

• Digitally addressable via MODBUS.

• Separate fire and fault relay signalling contacts.

• EXT Capacitor Discharge of 3A to 1A in 50ms.

• Multiple languages (English, French, Dutch, German and Spanish).

Configurations

Access Level 1: Security PIN

• Silence sounder and buzzer.

Access Level 2:

• LED test.

• Internal buzzer test.

• Custom user Micro panel identifier programing. *

Access Level 3:

• Modbus address set.

• Auto Detection Disablement. *

• Node Disablement. *

• Fault and Fire relay disablement. *

• Sounder disablement. *

• MCP disablement. *

• Release Delay. *

• Manual Release Delay. *

• Reset Delay. *

• Time. *

• Language selection. *

• Disable short fault detection. *

All settings can be set globally across all connected MICROs or independently.

*Only possible with a TI installed.

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Technical Specifications

Micro unit	
Overall Size	120mm x 94mm x 34mm
Finish	Black, textured
Mains Power Supply	100-240V 0.1A 50-60Hz
Fuse	32mA Slow Blow fuse
Aux DC Vin Power Supply	7-28VDC @ 1A
Standby or Primary Battery AAA	Lithium Ion 1.5V 1200mAh x 2
Current draw from batteries.	4mA (during non-fire condition)
	500mA for 3s (during fire condition)
	140uA (In battery only mode)
Suppression Output (capacitive discharge)	Initial 3A output discharged to 1A in 50ms.
Capacitor charge time	3 seconds
Sounder output rating	0.5A
Relay: Fault and Fire contacts	28V @ 1A
Relay: Suppression	5A
Detection loop current	0.4mA
Maximum communication length	1000meters (Unlimited with repeaters)
Communication Standard	RS485 (refer to EIA-485 specification)
Communication Protocol	MODBUS
Wireless communication	Bluetooth and Wifi
On board MCP	Capacitive touch sensor
Internal Buzzer	85dB
External Mode selector	1x NO key switch (Disable or Hold Off)
Buttons	3 IP65 buttons (Reset, Silence and Mode)
LEDs	4 LEDs (Fire, Fault, Health and Battery)
IP rating	IP65
Monitoring End of line resistors	6K8 ohm END OF LINE monitoring
Actuation per Micro	2 x Gas generators
	6 x Stat-X units

TI unit	
Overall size	130mm x 175mm x 29mm
Screen brightness	300 Cd (Dims to 30Cd in standby Powersave mode)
Power	17-28VDC
Buzzer	85dB
SD card	Included (Built in)
Languages	English, Spanish, French, Dutch and German
Fault signalling	Generic fault signalling and in depth fault log.
Max number of connected MICROs	8
Touch	Resistive

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Connections

GND Rx Tx Vin − + − + NO C NC NO C NC
MODBUS EXT2 EXT1 FIRE FAULT

-NEG

MODBUS RS485
Ti Comms

7-28V DC
1A Supply

Fire Suppression

Fire Relay

Fault Relay

E N L SOUNDER OUT MODE IN ZONE
MAINS

Earth - Neutral - Live
110 Or 240V AC
Configurable option

External Sounder
6K8 E.O.L

External Switch
Hold off/Disable

Fire Detection
6K8 E.O.L