

INSTALLATION INSTRUCTIONS v 0.15



Techrite **TAIS**

UNIT SPECIFICATIONS

- Main Gas Valve, Pilot Gas Valve
- Ionisation, Ignition and Flame Monitoring with Common Electrode or Remote Sensor
- Integrated Cyclic Spark Ignition
- Safety restart after loss of flame
- Room air fan On and Off contacts adjustable to customer requirements
- Volatile or Non-Volatile Lock Out*
- LED Fault Indicator
- Reliable Molex Connector
- Compact size
- Auxiliary inputs

APPLICATION

Depending on the model, the AIS automatic gas burner controller is designed for igniting and monitoring gas burners with or without fan.

It conforms to EN 298.

For application in extended temperature range (0°C to +60°C).

APPROVAL

EU type test approval as per EU

Gas Appliance Directive.

AGA NUMBER 6953

TECHRITE
INDUSTRIAL
CONTROLS
AUSTRALIA

*DEPENDING ON MODEL

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12 Yiannis Court,
Springvale, Vic 3171
Ph: +61 3 9549 4444
Fax: +61 3 9546 6069
www.techrite.com.au

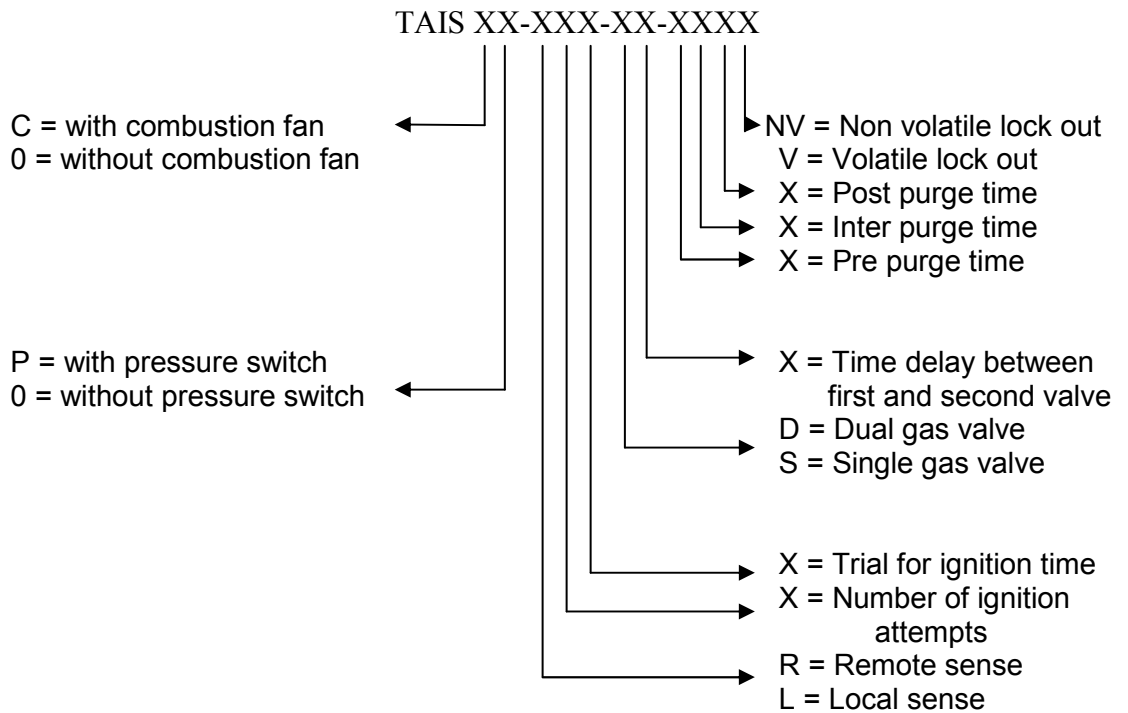
TECHRITE TAIS SERIES CONTROLLER SPECIFICATIONS

• Nominal Voltage	220 – 240 VAC -15% to +10%
• Frequency	50Hz
• Reset	o By Power Off / On o Reset Button
• Circuit Protection	Internal Fuse 5A
• Switching Capacity	o Pilot Gas Valve 1A o Main Gas Valve 1A
• Start-up Time	2 Seconds*
• Safety Shut-Down	Less than 1 Second*
• Blower Motor	240V AC / 2A
• Spark and Sensor Rod	Off Main Connector
• Ionisation Current	> 3µA
• Ignition Voltage	15kV (Approximate)
• Ignition Attempts	1 or 3*
• Trial for Ignition	5 Seconds or 10 Seconds*
• Ignition Wire Length	1 Metre Maximum
• Spark Frequency	15 Per Second (Approximate)
• Purge	Pre, post and inter purge functions*
• Diagnostic LED Indicator	o Power On / Operation Mode o Pressure Switch / Combustion Fan Fault o Flame Sensor Fault o Hardware Fault
• Pressure Switch Compatible	Yes
• Combustion Fan Compatible	Yes
• Room Air Fan Compatible	Yes (Low, Medium, High Contacts Avail.)
• Connection Type	Molex
• Degree of Protection	IP 20 – IP 40
• Ambient Temperature Range	0° - 60 °C
• Physical Size (LxWxH)	126 x 123 x 40.5 Millimetres
• Flame Sensor Wire Length	1 Metre Maximum
• Standards	o EN298 o AS4625
• Distance between electrodes	3mm to 4mm
• Spark Connection	6.3 mm x 0.8 mm [^]
• Sense Connection	4.8 mm x 0.8 mm [^]

* DEPENDING ON MODEL

[^] INTRODUCED OCTOBER 2012

MODULE PART NUMBERING SYSTEM



Example

TAIS CP-R315-D5-000V

A model with:

- combustion fan,
- pressure switch,
- Remote sense,
- 3 ignition attempts,
- each ignition attempt 15 seconds,
- Dual gas valve,
- 5 second delay between first and second valve,
- no pre purge,
- no inter purge,
- no post purge
- and volatile lock out

Note: If a part number has more characters than listed above this will indicate a model for a special customer and the functions of this model will only be available from Techrite Controls Australia.

NOTES ON EACH PARAMETER IN THE PART NUMBER FIELD

Model Type

The designation TAIS refers to this family of EN298 approved controls

Combustion Fan

Used when a combustion fan is required for burner operation

Pressure Switch

The pressure switch input is used to confirm the operation of the combustion fan.

This parameter is only relevant when a combustion fan is fitted.

Module will attempt a re-ignition if the pressure switch opens during normal operation. Post and pre purge will be performed if these parameters are enabled.

Local / Remote Flame Sense

Local Flame sense utilizes a single probe for ignition and detection

Remote flame sense utilizes two probes – one for ignition and one for flame detection

Ignition Attempts

The maximum number of attempts which will be made by the module to establish a flame

Trial for Ignition Time

This time represents the duration of the sparking for each attempt of ignition.

The spark shall stop during the Trial for ignition time whenever a flame is sensed.

Single / Dual Gas Outputs

Allows for one or two gas valve outputs

Low to High Gas Delay

This delay allows the LOW gas output to be active for a predetermined period prior to the HIGH gas output being activated.

This parameter is only relevant for modules with a dual gas output.

Pre Purge Time

The time period the combustion fan will run, prior to turning on the gas and ignition.

Inter Purge Time

The time period the combustion fan will run between ignition attempts on multiple trial for ignition models.

Post Purge Time

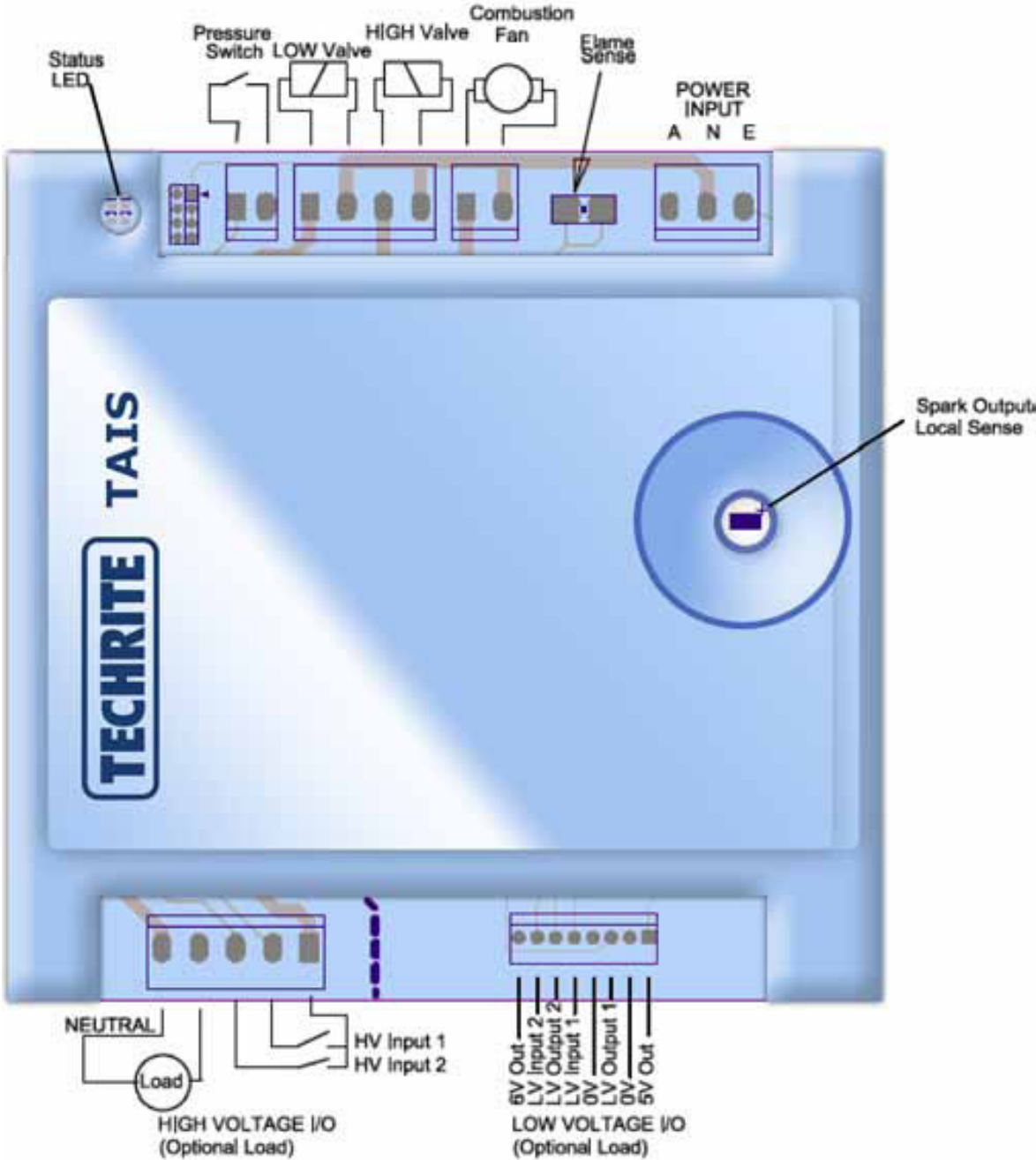
The time period the combustion fan will run after the request for heat signal is removed. This option requires the heat request input function to be enabled.

Non-Volatile Lockout

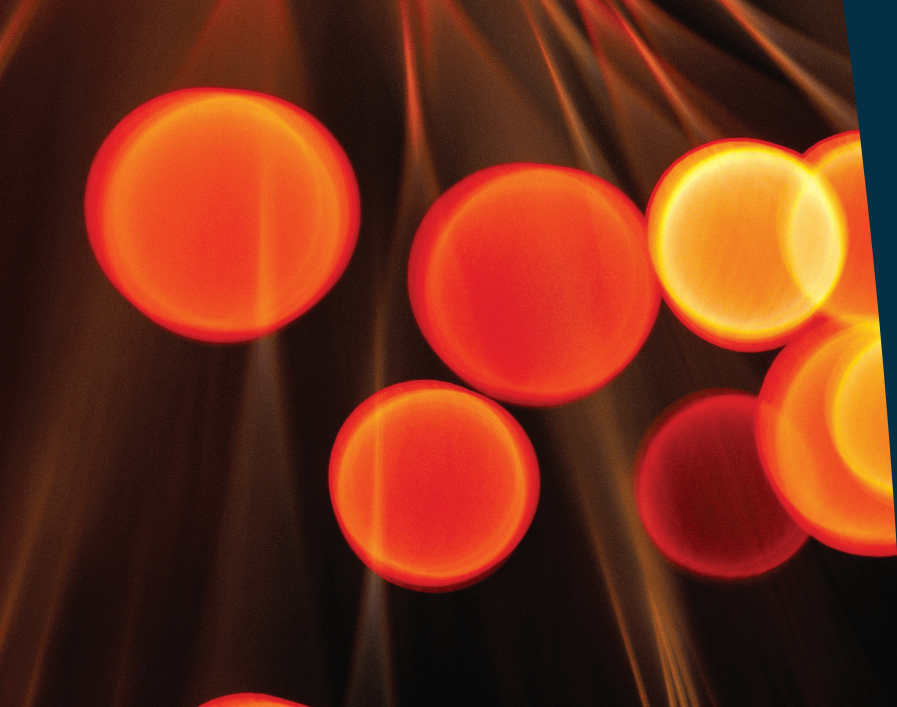
When a non volatile lockout is used, output GP1 will indicate that a lockout has occurred.

Heat Request Input#1 becomes the reset input.

TAIS WIRING DIAGRAM



Note: This module is polarity sensitive. It will not sense flame if mains polarity is not correct.



MELBOURNE

Head Office:

12 Yiannis Court,
Springvale, Vic 3171
Email: info@techrite.com.au

Ph: +61 3 9549 4444
Fax: +61 3 9546 6069

SYDNEY

Ph: +61 2 9624 4486
Fax: +61 2 9624 6449

BRISBANE

Ph: +61 7 3807 9094
Fax: +61 7 3807 9095



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