



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 653	25-Nov-1992	Number 12	Issue date 1-May-2018	30-Apr-2019

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Product designation

Tyco, Microvac, emergency warning system panel

(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

Tyco Fire Protection Products
Level 3, 95 Coventry Street, SOUTHBANK, VIC, AUSTRALIA, 3006

Registrant

Johnson Controls
17 Mary Muller Drive, HILLSBOROUGH, CHRISTCHURCH, NEW ZEALAND, 8022

Producer

Johnson Controls
17 Mary Muller Drive, HILLSBOROUGH, CHRISTCHURCH, NEW ZEALAND, 8022

Conformance criteria and evaluation

The Tyco, Microvac, emergency warning system panel has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 2220.1-1989, 'Emergency warning and intercommunication systems in buildings - Equipment design and manufacture'.

Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

Specified limitations/conditions, determined from the evaluation for conformity, include the following.

- i. When used in the standalone mode, contains no facilities for the emergency intercommunication system requirements of AS 2220:Part 1-1989.

This certification is issued within the scope of CSIRO Verification Services – Rules governing ActivFire Scheme and is valid only for the product(s) as submitted for evaluation and verification of conformity, subject to the following conditions.

- Reference to details, limitations and requirements, where documented as a schedule/enclosure with this certificate.
- The Registrant is responsible for their attestation of conformity and ensuring that on-going production complies with the conformance criteria defined in this certificate.
- This certificate will not be valid if any changes or modifications are made to the product which have not been notified and validated by CSIRO Verification Services.
- This certificate is subject to periodical re-validation upon verification that all requirements, as determined by the conformity assessment body, continue to be satisfactorily met by the Registrant.
- This certificate may only be reproduced in its published form, without modification and inclusive of all schedules/enclosures.
- Any changes, errors or omissions, must be submitted in writing and if necessary or requested, substantiated with relevant evidence.
- Any representations, such as advertising or other marketing related activities or articles shall reflect the correct contents of this certificate and conform with all relevant trade practices and consumer protection legislation and regulations.
- Any terms or conditions of use as applicable to content and documentation as published or accessed through web sites administered by the CSIRO Verification Services.

Issued by

David Whittaker
Executive Officer – ActivFire Scheme



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Producer's description

The Tyco, Microvac, emergency warning system panel is a single zone Emergency Warning System with the essential electronic functions located on a single printed circuit board. The board provides alarm input monitoring, tone generation, visual alarm output (for strobes), Alert/Evacuation/Speech input monitoring, auxiliary audio inputs, 100 V line output, background music attenuator, and fault relay outputs.

In the manual mode, a microprocessor monitors the alert/evacuate and PA speech control input for evacuation. If an input is activated, then that particular tone is generated on the 100 V speaker lines and the strobe output is activated. The control inputs are prioritised so that Public Address speech is the highest followed by Evacuate, Alert, Auxiliary Paging and Background music. The microprocessor also monitors the digital input/speaker lines, strobe line, amplifier, tone generators and battery charger for fault conditions.

In the automatic mode, the tones and strobe outputs are generated automatically in the event of a FIP or BGA alarm input being activated.

Technical specification

The following details are a representative extract of the technical specification for the Tyco, Microvac, emergency warning system panel and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Power supply / battery charger

Mains supply: 240 Vac @ 50 Hz, +6% -10%, 100 VA

Power supply / charger: 27.3 Vdc (nominal) @ 20°C

Rated current: 1.5 A minimum

2.2 A typical

Battery requirements: 24 V nominal, sealed lead acid, capacity to meet AS 2220.2

Sizes up to 9.5Ah for inside cabinet

Operating temperature: -5°C to 45°C

Operating humidity: 10% to 95% RH (non condensing)

System capacity: 1 zone

Current consumption: Quiescent (no BGM) 0.21 A

(all figures typical @ 27.3 Vdc) Full load (sinewave) 2.1 A

Full load (evac) 2.1 A

Full load (alert) 1.1 A

No load (evac) 0.45 A

Cabinet

Type: Wall mounting

Size: 555 (h) x 380 (w) x 125 (d) mm

IP Rating: IP51

Input / Outputs

Digital control inputs: FIP, BGA

Input type: clean contact

Monitoring: 15k EOL

Digital control inputs: Paging, BGM/After-Hours

Input type: clean contact

Audio inputs: BGM, Paging, Aux

Input type: Balance line input

Level: 0.3 to 2.0 V RMS (Individual attenuators)

Auxiliary outputs: BGM Override, Fault, Alarm

Type: Single pole change-over relay

Rating: 1 A @ 30 Vdc

Normal state:

Alarm Normally de-energised

Fault, BGM Override Normally energised

Amplifier characteristics

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Output type:	100 Volt line
Power:	25 W RMS @ 1 kHz sinewave input
Bandwidth (± 1dB):	100 Hz to 15 kHz
Distortion:	< 2%
Signal-to-Noise Ratio:	> 60dB
Alert signal:	as defined in AS 2220.1
Evacuation signal:	as defined in AS 2220.1
Tone priority:	PA Speech Evacuation tone Alert tone Paging Background music
Speaker line monitoring:	O/C and S/C monitored with 56k EOL resistor

Supplementary information

Module	Assembly num.	PCB number	Tech drawing num.
Microvac Display / Keyboard	1923-2	1923-2 Issue A	1923-2 Issue 3 Sheets 1 & 2
Microvac Single Zone EWS board	1923-1	1923-1 Issue A	1923-1 Issue 5 Sheets 1 to 8

Eproms:

I.C. U9	Microvac V1.05
I.C. U1	Quintrix Speech Aust V1.00

Technical manual:

Document LT01111
Issue 1.31
Dated 5-Apr-2000