CSIRO Verification Services
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Certificate of Conformity

Certificate num.	Registration date	Version Number	Version Issue date	Valid until
afp - 3850	10-Oct-2023	3	21-Apr-2026	30-Apr-2027

Product designation

Notifier, ECS-16, emergency warning control and indicating equipment

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

Agent/distributor

Honeywell Security and Fire
9 Columbia Way, BAULKHAM HILLS, NSW, AUSTRALIA, 2153

Registrant

Johnson Controls Fire Detection Products
Level 3, 37 Dalmore Drive, Caribbean Park, SCORESBY, VIC, AUSTRALIA, 3179

Producer

Johnson Controls Fire Detection Products
Level 3, 37 Dalmore Drive, Caribbean Park, SCORESBY, VIC, AUSTRALIA, 3179

Conformance criteria and evaluation

The Notifier, ECS-16, emergency warning control and indicating equipment has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 4428.16:2020, 'Fire detection, warning, control and intercom systems - Control and indicating equipment Part 16: Emergency warning control and indicating equipment'.
2. Australian Standard AS 4428.4:2016, 'Fire detection, warning, control and intercom systems - Control and indicating equipment Part 4: Emergency intercom control and indicating equipment'.
3. Australian Standard AS 7240.4:2018, 'Fire detection and alarm systems - Part 4: Power supply equipment (ISO 7240-4:2017, MOD)'.

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. All parts of the EWCIE and EICIE shall be mounted in a single enclosure or adjacent enclosures, and

(Limitations/conditions of conformance continue)

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

Kai Loh
Executive Officer – ActivFire Scheme

ii. the EWCIE/EICIE enclosure shall be fitted with the labels as described in the evaluation for conformity report, and

iii. the EWCIE/EICIE shall be installed and maintained as recommended by the producer and in accordance with the general requirements of these Limitations/conditions of conformance.

iv. The EWCIE/EICIE is used with a power supply that conforms with AS 7240.4.

Producer's description

The Notifier, ECS-16, emergency warning control and indicating equipment is a Grade 1 Emergency Warning CIE with an integrated Emergency Intercommunications CIE. It is modular and expandable to meet site requirements. It can operate standalone with one or more adjacent cabinets, or with up to 64 ECS-16 panels in a site -wide networked system. Each ECS-16 supports:

- Control & indication for up to 224 evacuation zones and 224 WIP rows (3 WIP buttons each).
- Up to 56 amplifier modules rated at 4 × 25W, 4 × 60W, 2 × 120W and 1 × 240W RMS.
- 100V Speaker circuit Splitter module to provide 4 short-circuit isolated outputs.
- 16 × 27A Power Supply modules.
- Up to 16 paging consoles, common background music input, local BGM input per amplifier.
- Copper cable RS485 networking with up to 64 ECS-16 panels.
- Fibre optic cable networking with up to 64 ECS-16 panels.
- Touchscreen LCD for optional recalls and fault information.
- Up to 120 minutes of digital audio storage, with flexible playback options.

The ECS-16 provides automatic operation in the case of emergency activation, using a pre-configured phased evacuation scheme based on the input(s) in alarm. Manual control of the system is also possible using the front panel controls and indication. An emergency public address microphone allows the broadcast of verbal instructions to building occupants in all, or selected areas.

Under non-emergency conditions the ECS-16 can also be used to distribute background music (BGM), routine public address announcements, and pre-programmed messages to selected zones.

Technical specification

The following details are a representative extract of the technical specification for the Notifier, ECS216, emergency warning control and indicating equipment and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Schedule of components and/or assemblies

The following is a schedule of validated components and/or assemblies of the certified/listed equipment.

Part no. / spare	Description	Model / Component	Version / Checksum
ME0600 / FP2010	ECS-16 Main User Interface Module	MUI LCD Module	1.1 1609B969
		MKI	1.0 BD25E4B1
ME0601 / FP2011	ECS-16 8 Zone/8 WIP User Interface Extender Module	-	-
ME0602 / FP2012	ECS-16 16 WIP User Interface Extender Module	-	-
ME0603 / FP2013	ECS-16 16 Zone User Interface Extender Module	-	-
ME0606 / FP2000	ECS-16 Controller Module	ECS-16 Controller	1.1 CTRL 1.1 B11A19C1 Linux OS = 4.9.288
		QBUS Manager	1.1 C8BB416B
ME0607 / FP2003	ECS-16 WIP / Input Module	WIP Modules	1.1 6472D1F9
ME0608 / FP2002	ECS-16 Relay Output Module	ROM Modules	1.1 1FD16937
ME0609 / FP2005	ECS-16 RS485 Network Module	RS485 Network Module	1.0 2B0E4DA6
ME0610	ECS-16 IP Networking Module	-	-
ME0611 / FP2001 ME0612 / FP2001	ECS-16 27A PSE (two equivalent variants)	PSE Modules	1.3 2C686721
ME0613 / FP2006	ECS-16 4 x 25W Amplifier Module	Amplifier Module	1.1 1C49E048
ME0614 / FP2007	ECS-16 4 x 60W Amplifier Module		
ME0615 / FP2008	ECS-16 2 x 120W Amplifier Module		

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Part no. / spare	Description	Model / Component	Version / Checksum
ME0616 / FP2009	ECS-16 240W Amplifier Module		
ME0619	ECS-16 4 x 60W Amplifier Module (basic)		
ME0623 / FP2019	ECS-16 Fan Cooling Module	-	-
ME0625 / FP2021	ECS-16 8 Zone Expansion Bd	8 Zone Extender Modules	1.2 9CA4E04B
ME0626 / FP2022	ECS-16 8 WIP Expansion Bd	8 WIP Extender Modules	1.2 C4B0BA60
ME0628	ECS-16 2x4 way 100V Splitter Module	-	-

Schedule of mandatory functions and optional functions with requirements

The following schedule of AS 4428.16:2020 optional (or optional required) functions with requirements have been validated for the appropriate EWCIE grade as nominated.

Option		Grade 1
1.	Indications:	
a.	Alarm signals (Cl 7.2)	Provided
a.	Alert signal (Cl 7.3)	Provided
b.	Audible signal of alarm signal reception (Cl 7.6)	Provided
1.	Controls:	
a.	Delay before emergency warning condition (Cl 7.7)	Provided
b.	Phased evacuation for multi-zoned systems (Cl 7.8)	Provided
c.	Silencing the emergency warning condition from the emergency detection system (Cl 7.9.1)	Not permitted
d.	Silencing the emergency warning condition with a manual control (Cl 7.9.2)	Provided
e.	Reset of the emergency warning condition from the emergency detection system (Cl 7.10.1)	Not permitted
f.	Reset of the emergency warning condition with a manual control (Cl 7.10.2)	Provided
g.	Automatic/manual mode control (Cl 11.1)	Provided
h.	Manual control to distributed EWCIE (Cl 11.2)	Provided
i.	Individual emergency zone controls (Cl 12.1)	Provided
j.	All alert control (Cl 12.2.2)	Provided
k.	All live speech control (Cl 12.2.3)	Provided
l.	All evacuate control (Cl 12.2.4)	Provided
2.	Outputs:	
a.	Output to warning devices (Cl 7.11)	Provided
b.	Emergency warning condition output signal (Cl 7.12)	Provided
3.	Disabled condition (Cl 9)	Provided
4.	Test condition and indication (Cl 10)	Provided
5.	Interface to external device(s) (Cl 13)	Not provided
6.	Emergency microphone (Cl 14)	Provided
7.	Integrity of transmission paths:	
a.	Paths to remote power supplies (Cl 15.5.4)	Not provided
8.	Redundant power amplifiers (Cl 15.15)	Provided
9.	Operational	
a.	Dry heat, steady state test (operational) (Cl 18.9)	Not claimed

The following schedule of AS 4428.4:2016 optional (or optional required) functions with requirements have been validated for the appropriate EICIE grade as nominated.

Option		Grade 1
1.	Fault warning condition:	
a.	External silencing of the EICIE fault condition (Cl 8.8)	Provided
2.	Zone cleared condition (Cl 9)	Provided
3.	Controls:	
a.	Manual control for networked EICIE (Cl 10)	Not provided
b.	Manual controls of EICIE (Cl 11)	Provided
c.	WIP group call control (Cl 11.2)	Provided
d.	Interface to external control device(s) (Cl 12)	Not provided
4.	Integrity of transmission paths:	
a.	Paths to remote power supplies (Cl 13.5.4)	Not provided
5.	Operational	
b.	Dry heat, steady state test (operational) (Cl 16.6)	Not claimed

Schedule of periphal equipment

The following is a schedule of peripheral equipment of the certified/listed equipment.

Part No.	Description
FP0938	WIP Phone Handset
SU0608	Manual Call Point, White
FP0539B	Paging Console

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Part No.	Description
100V Attenuator	100 V attenuator with 24 V DC override

Schedule of properties/characteristics

The following schedule is an extract of physical and operational properties/characteristics of the certified/listed equipment.

Parameter	Value
System capacity:	Up to 2000 W amplifier capacity in any one cabinet (40U). Up to 224 emergency zones of indication and control in one panel. Installation standards may require several cabinets to achieve this. Up to 256 panels in a networked system.
Cabinet Dimensions (approx.)	
28U:	575(w) x 1330(h) x 380(d) mm
40U:	575(w) x 1865(h) x 380(d) mm
Cabinet material:	Zintex zinc coated steel 1.6 mm thick
Cabinet finish:	Powder coated
Cabinet colour:	Titania or Black
Mounting:	Wall mount
Mains input:	230 or 240 VAC +10%/-15%, 50-60 Hz, 4.2 A peak per PSE unit
Internal power supply:	26VDC @ 27 A (for each power supply unit). Up to four PSE may be fitted in a cabinet to meet load requirements.
Standby battery:	24 V VRLA type, up to 150 Ah (with four PSE).
Battery charger:	27.3 VDC (nominal float voltage), up to 2.5 A per PSE (10A with four PSE)
PSU supervision:	Battery low / fail / disconnected, charger fail
Operating Temperature:	-5 ºC to 55 ºC
Operating Humidity:	10% to 90% RH non-condensing
Amplifier outputs:	100 V AC at 25 W, 60 W, 120 W, or 240 W capacities with up to 200 nF line capacitance, with open and short circuit supervision.
Visual Alarm outputs:	Dual polarity 24 VDC outputs at 1 A, with open and short circuit supervision.
Alarm inputs:	24 VDC circuits, up to 5 mA current, suitable for use with clean contact or NPN open circuit outputs, with open circuit supervision.
WIP phone inputs:	24V DC circuits, up to 15 mA, with open and short circuit supervision, for use with FP0938 WIP phones, or clean contact MCPs, or both.
RS485 Network ports:	Two ports for paired copper cables, in ring mode wiring.
Fibre-optic Network ports:	Two pairs of fibre-optic cable, either single mode or multimode type, in ring format wiring.

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Supplementary information

Schedule of relevant articles

The following schedule is an extract of articles significant and/or related as evidence of conformity.

Reference		Title / description	Date issued (or date validated)	Source
Type	**Ident.**			
Report	CSBA0072/R1	Evaluation for Conformity of the Honeywell Notifier ECS-16 Model QE20, Emergency Warning System to AS 4428.16:2020, AS 4428.4:2016, and AS 7240.4-2018.	20-Dec-2023	CSIRO Fire Systems Laboratory, AU.
Manual	DOC-01-040	Notifier® Honeywell Emergency Warning System ECS-16 Operations Manual Document DOC-01-040 Rev: A 22/09/2023 Issue 1.0 (DOC-01-040 ECS-16 Operations Manual Iss1.0.pdf)	22-Sep-2023	Honeywell Security and Fire, AU
	DOC-01-041	Notifier® Honeywell Emergency Warning System ECS-16 Installation Manual Document DOC-01-041 Rev: A 22/09/2023 Issue 1.0 (DOC-01-041 ECS-16 Installation Manual Iss1.0.pdf)	22-Sep-2023	