



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 3727	20-Feb-2023	Number 1	Issue date 21-Feb-2023	30-Apr-2024

Product designation

Reacton, CTX Indirect, fluorine-free foam, On Road & Off Road, Vehicle Automatic Fire Suppression System

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

Agent/distributor

Reacton Fire Suppression
14 Baynes Place, Waterhouse Business Park, Chelmsford, Essex, UNITED KINGDOM, CM1 2QX

Registrant

Reacton Fire Suppression
14 Baynes Place, Waterhouse Business Park, Chelmsford, Essex, UNITED KINGDOM, CM1 2QX

Producer

Reacton Fire Suppression
14 Baynes Place, Waterhouse Business Park, Chelmsford, Essex, UNITED KINGDOM, CM1 2QX

Conformance criteria and evaluation

The Reacton, CTX Indirect, fluorine-free foam, On Road & Off Road, Vehicle Automatic Fire Suppression System has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 5062:2016, 'Fire protection for mobile and transportable equipment'.

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. System operating temperature range is 0°C to 49°C.
- ii. A maximum of 8 cylinders may be connected in-line, using a maximum of 45 m of detection tube.

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

Kaj Loh
Executive Officer – ActivFire Scheme



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Producer's description

The Reacton, CTX Indirect, fluorine-free foam, On Road & Off Road, Vehicle Automatic Fire Suppression System is a pre-engineered fire suppression system offering automatic fire detection and suppression. The system is intended for protection of Heavy Plant and Machinery Equipment and Industrial & Commercial Vehicles, only.

The Reacton, CTX Indirect, fluorine-free foam, On Road & Off Road, Vehicle Automatic Fire Suppression System is made up of three key areas: the CTX Indirect cylinder assembly which contains the Reacton F3 extinguishing agent, the pneumatic detection tube which provides the primary detection and actuation of the system and finally the discharge network which delivers the agent from the cylinder to the hazard through its discharge hoses and nozzles. The Reacton F3 cylinder assembly contains pre-mixed Reacton F3 solution which is effective on Class A & B fires.

All cylinder assemblies are superpressurised with dry nitrogen at 25.0 bar @ 20°C and are fitted with a CTX Indirect valve, which is a pressure differential-type valve. The valve comes equipped with pressure indication via its pressure gauge and an integrated ball valve to control communication with the detection tube.

Automatic detection is provided using the Reacton Detection Tube. The tube is pressurised with dry nitrogen at 25.0 bar @ 20°C. The detection tube provides both the detection and the actuation function of the system.

The extinguishing agent is delivered to the hazard through a discharge hose network made up of flexible hoses and distributed by pre-engineered nozzles.

The Reacton, CTX Indirect, fluorine-free foam, On Road & Off Road, Vehicle Automatic Fire Suppression System utilises the CTX Indirect valve technology to automatically detect the fire and actuate the system. Tubing is installed in and around the fire risk areas within the protected area and is pressurised and in communication with the valve which is held in the closed position.

When a fire occurs, the tubing bursts at the point of highest temperature, with the resultant pressure loss causing the valve to open. Activation through pressure loss can also be achieved through the use of a manual actuator or solenoid.

The result of the valve opening is extinguishing agent delivered through a network of braided hoses leading to strategically placed nozzles within the hazard.

Technical specification

The following details are a representative extract of the technical specification for the Reacton, CTX Indirect, fluorine-free foam, On Road & Off Road, Vehicle Automatic Fire Suppression System 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.

Extinguishing concentrate:

Trade brand	SDS product name	Type	Part number
Reacton Fire Suppression	Reacton F3 Concentrate	Fluorine Free Foam (F3)	RE7520

Reacton, CTX Indirect, fluorine-free foam system:

Part No.	Description
CYLINDER ASSEMBLIES	
RE-CTXCE-054-040-RF3-SS	4.0kg CTX Indirect Cylinder Assembly - Reacton F3 Agent
RE-CTXCE-075-060- RF3-SS	6.0kg CTX Indirect Cylinder Assembly - Reacton F3 Agent
RE-CTXCE-120-090-RF3-SS	9.0kg CTX Indirect Cylinder Assembly- Reacton F3 Agent
RE-CTXCE-240-180- RF3-SS	18.0kg CTX Indirect Cylinder Assembly- Reacton F3 Agent
BRACKETS	
RE4035	4.0 & 6.0kg Heavy Duty Vehicle Bracket
RE4036	9.0kg Heavy Duty Vehicle Bracket
RE4037	18.0kg Heavy Duty Vehicle Bracket
RE7234	Component Bracket Black Powder Coated

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Part No.	Description
DETECTION TUBE	
RE5050	R108 VS 6/4mm Red Detection Tube
QR TWINSEAL FITTINGS	
RE7041	QR Twinseal Stud: 1/8" Threaded – 6/4mm Tube
RE7014	QR Twinseal Swl Elbow: 1/8" Threaded - 6/4mm Tube
RE7013	QR Twinseal Swl Tee: 1/8" Threaded - 6/4mm Tube
RE7011	QR Twinseal In-Line: 6/4mm Tube Only
RE7008	QR Twinseal Tee: 6/4mm Tube Only
RE7315	QR Twinseal Blanking Cap: 6/4mm Tube Only
RE7386	QR Twinseal fitting dust cover 6mm Tube
RE6600	Black PVC Sleeving for 6/4mm Detection Tube - 50m Roll
DISCHARGE HOSES	
RE6964	3/8" - 3.00m Hose
RE6965	3/8" - 2.50m Hose
RE6966	3/8" - 2.00m Hose
RE6967	3/8" - 1.50m Hose
RE6968	3/8" - 1.00m Hose
RE6944	3/8" - 0.75m Hose
RE6969	3/8" - 0.50m Hose
RE6942	3/8" - 0.25m Hose
QR 3/8 HOSE FITTINGS	
RE6947	45° Swl Elbow 3/8" Male - 3/8" BSPT
RE6948	90° Elbow 3/8" Male - 3/8" BSPT
RE7400	Adaptor - 3/8" Cone - 1/4"
RE6951	Male Bulkhead
RE6956	Flat Washer x 100
RE6957	Shakeproof Washer x 100
RE6983	Elbow - 3/8" Male - 3/8" Female
RE6985	Tee - Equal - 3/8" male
RE6987	Adaptor 3/8" P to 3/8" P
RE6940	Tee – 3/8" M,M, Female Swivel
NOZZLES	
RE7165	Nozzle Blow off Caps, Slip-On, Silicone, BLUE 3/8"
RE7098	FC120 – Type Nozzle
EOL & MANUAL ACTUATORS	
RE7243-25	25 bar End of the Line (EOL): 6/4mm Tube
RE7270-25	25 bar Reacton Manual Actuator
RE7254	Replacement Diaphragm
PRESSURE SWITCHES	
RE5004	N/O&N/C 18 Bar F, 1/8", 20cm Cable
RE5003	N/O&N/C 5 Bar F, 1/8", 20cm Cable
RE5010	N/O&N/C 3 Bar R, 1/8", 20cm Cable
RE5013	N/O&N/C 5 Bar F, M10 x 1", 20cm Cable
RE5015	N/O&N/C 18 Bar F, M10 x 1", 20cm Cable

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Part No.	Description
INSTALLATION ACCESSORIES - FIXINGS	
RE7086	Double Ended Cable Ties - BLACK 300x4.8mm
RE7232	P-Clips: Steel Rubber Lined 6mm
RE4060	Dual Hose Clamp including cover plate
RE4063	Single Hose Clamp including cover plate
RE7249	P-Clips: Steel Rubber Lined 17mm
RE7079	Self Drilling Screw 8mm x 32mm
SYSTEM LABELS	
RE6110	Reacton Branded Adhesive Caution Label 297 x 210
RE6111	Reacton Branded Adhesive Do not Kink Label 58 x 72
RE6112	Reacton Branded Adhesive Manual Activation Label 77 x 210
RE6113	Reacton Adhesive Cylinder Maintenance Label A5
RE5722	Reacton 6% F3 Cylinder Label 180 x 95 (S)
RE5723	Reacton 6% F3 Cylinder Label 180 x 200 (L)
AS / NZS IDENTIFICATION LABELS	
RE5690	5.4ltr - AS/NZS Reacton F3 Agent Identification Label
RE5691	7.5ltr - AS/NZS Reacton F3 Agent Identification Label
RE5692	12.4ltr - AS/NZS Reacton F3 Agent Identification Label
RE5693	24.0ltr - AS/NZS Reacton F3 Agent Identification Label
SYSTEM WARNING LABELS	
RE5724	Fire System Warning Notice – Auto & Shutdown
RE5725	Fire System Warning Notice – Auto Only
RE5726	Fire System Warning Notice – Manual & Shutdown
RE5727	Fire System Warning Notice – Manual Only
RE5728	Time Delay Notice
RE5729	Isolation Warning Notice
INSTALLATION ACCESSORIES – CYLINDER	
RE7016	QR Blanking Plug: 1/4" Threaded – PTFE Seal
RE7038	QR Blanking Plug: 1/8" Threaded – PTFE Seal
RE6979	QR Adaptor: Male 1/4" to Fem 1/8"
RE7291	Integrated Ball Valve Lock
RE7126	Tamper Seal – Red
RE7149	Liquid Thread Sealant
INSTALLATION ACCESSORIES – CHARGING	
RE6410	Reacton Tube Cutter
RE6400	Reacton Charging Adaptor
RE7114	Digital Leak Detection Kit
RE7151	Leak Detection Spray
RE6412	Detection Tube Tool - 6/4
SYSTEM CONTROL AND INDICATION	
RE6150	Ball Valve Monitoring Device
RE7390-12	Valve Actuator Solenoid – 12VDC
RE7390-24	Valve Actuator Solenoid – 24VDC
RE7391	Solenoid Monitoring Device

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Part No.	Description
RE7320	Reacton AS 5062 LED Fascia
RE7318-25-BAT	Junction Box

In-cab monitoring components:

Part No.	Description
BRACKETS	
RE7234	Component Bracket Black Powder Coated
DETECTION TUBE	
RE5050	R108 VS 6/4mm Red Detection Tube
QR TWINSEAL FITTINGS	
RE7041	QR Twinseal Stud: 1/8" Threaded – 6/4mm Tube
RE7014	QR Twinseal Swl Elbow: 1/8" Threaded - 6/4mm Tube
RE7013	QR Twinseal Swl Tee: 1/8" Threaded - 6/4mm Tube
RE7011	QR Twinseal In-Line: 6/4mm Tube Only
RE7008	QR Twinseal Tee: 6/4mm Tube Only
RE7315	QR Twinseal Blanking Cap: 6/4mm Tube Only
RE7386	QR Twinseal fitting dust cover 6mm Tube
PRESSURE SWITCHES	
RE5004	N/O&N/C 18 Bar F, 1/8", 20cm Cable
RE5003	N/O&N/C 5 Bar F, 1/8", 20cm Cable
RE5010	N/O&N/C 3 Bar R, 1/8", 20cm Cable
RE5013	N/O&N/C 5 Bar F, M10 x 1", 20cm Cable
RE5015	N/O&N/C 18 Bar F, M10 x 1", 20cm Cable
RE6405	M10 x 1 Adaptor
RE7017	Bonded Washer 1/8"
INSTALLATION ACCESSORIES - FIXINGS	
RE7086	Double Ended Cable Ties - BLACK 300x4.8mm
RE7232	P-Clips: Steel Rubber Lined 6mm
RE4060	Dual Hose Clamp including cover plate
RE4063	Single Hose Clamp including cover plate
RE7249	P-Clips: Steel Rubber Lined 17mm
RE7079	Self Drilling Screw 8mm x 32mm
INSTALLATION ACCESSORIES – LABELS	
RE6110	Reacton Branded Adhesive Caution Label 297 x 210
RE6111	Reacton Branded Adhesive Do not Kink Label 58 x 72
RE6112	Reacton Branded Adhesive Manual Activation Label 77 x210
INSTALLATION ACCESSORIES – CYLINDER	
RE7291	Integrated Ball Valve Lock
RE7126	Tamper Seal – Red
RE7149	Liquid Thread Sealant
INSTALLATION ACCESSORIES – CHARGING	
RE6410	Reacton Tube Cutter
RE6400	Reacton Charging Adaptor

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Part No.	Description
RE7114	Digital Leak Detection Kit
RE7151	Leak Detection Spray
RE6412	Detection Tube Tool - 6/4
ELECTRICAL PARTS	
RE6530	Mini Blade Fuse Holder - Maximum 20A (PK5)
RE6150	Ball Valve Monitoring Device
RE6310	Red Colour, Sounder Beacon 110dB, Red LED, 9 to 30 V dc, IP66
RE7292	M12 Dust Cap for Male Connector
RE7293	M8 Dust Cap for Male Connector
RE7439	M12 Fixed Torque Wrench Circular Connectors
RE7438	M8 Fixed Torque Wrench for Circular Connectors
RE7334-1	Power Supply Cable, M8 Fem to open ended, 3Pins, 10m length, PUR Insulation, 4A Max
RE7334-2	In-Cab Fascia Cable, M12 Fem to open ended, 12 Pins, 10m length, PUR Insulation, 1.5A Max
RE7334-3	Beacon/Sounder Cable, M8 Fem to open ended, 2 Pins, 10m length, PUR Insulation, 4A Max
RE7334-4	Engine Shutdown Cable, M12L Female, 5 Pins, 10m length, PUR Insulation, 16A Max, 35A Inrush Current
RE7334-5	Discharge Confirmation Switch Cable, M8 Fem to open ended, 3 Pins, 10m length, PUR Insulation, 4A Max
RE7334-7	In-Cab Fascia Cable, M12 Fem to M12 Male, 12 Pins, 10m length, PUR insulation, 1.5A Max
RE7334-8	In-Cab Fascia Cable, M12 Fem to M12 Male, 12 Pins, 7.5m length, PUR insulation, 1.5A Max
RE7334-6	Isolation Monitoring Switch, M8 Fem to open ended, 3 Pins, 10m length, PUR Insulated, 4A Max
RE7641	Deutsch Connector 6 Pins, Female
RE7643	Deutsch Female 6 Pins Lock – Green
RE7610	Deutsch Female Pin
RE7640	Deutsch Connector 6 Pins Male
RE7642	Deutsch Male 6 Pins Lock - Green
RE7609	Deutsch Male Pin
RE7605	Deutsch Connector 2 Pins Male
RE7606	Deutsch Male 2 Pins Lock – Green
RE7607	Deutsch Connector 2 Pins Female
RE7608	Deutsch Female 2 Pins Lock - Green
RE7230	Reacton AS 5062 LED In-Cab Fascia, IP65
RE7324	Bracket Powder Coated for RE7320 AS 5062 Fascia, IP65, M4 Holes, M12 Connector
RE7318-25-BAT	Reacton Junction Box with Battery – 25 Bar
RE7347	Junction Box Battery Pack AddOn Module for RE7318-xx-BAT
RE7336	Silencer Brass SSL Mesh 1/8" Fem, for Junction Box Exhaust
RE7334	Mounting Bracket for Junction Box

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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
Ident. type	Ident.			
Report	XF3416/R1	Evaluation for Conformity of the Reacton, CTX Indirect, fluorine-free foam and dry powder, On Road and Off Road Vehicle Automatic Fire Suppression Systems to the requirements of AS 5062:2016	17-Feb-2023	CSIRO, Fire Systems Laboratory, AU
Manual	USM0041 REV A	REACTON Fire Suppression AS 5062 – ACTIVFIRE CERTIFIED 25 BAR INDIRECT – REACTON F3 AGENT ON ROAD & OFF ROAD VEHICLE AUTOMATIC FIRE SUPPRESSION SYSTEM DESIGN, INSTALLATION, OPERATION & MAINTENANCE MANUAL DOC – USM0041 01 JUL 2022 – REV A (DOC-USM0041 (AS 5062 - Reacton F3 - DIOM Manual 25 bar) Rev.A.pdf)	26-Jan-2023	Reacton Fire Suppression Ltd, UK
	USM0004 Rev.A	REACTON Fire Suppression REACTON® DETECTION, CONTROL AND ACTUATION ELECTRONIC SYSTEM (DCAES) FOR REACTON® INDIRECT CTX AUTOMATIC FIRE SUPPRESSIONS SYSTEMS DESIGN, INSTALLATION, OPERATION & MAINTENANCE MANUAL DOC-USM0004 Rev.A 01 SEPTEMBER 2022 (DOC-USM0004 (AS 5062 Manual - Fire Detection, Actuation, Control & Indicating System) Rev.A.pdf)	6-Jan-2023	