


# UL-EU CERTIFICATE

**Certificate No.** UL-EU-01197-CPR  
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**Date of Issue** 2021-09-17  
**Revision** 2021-09-20  
**Certificate Holder** Eurofyre Ltd  
C1, Knowle Village Business Park, Mayles lane,  
Wickham, Fareham PO17 5DY  
United Kingdom

**Manufacturer** Factory A

**Certified Product Type** Non-resettable line-type heat detectors  
**Product Trade Name** FLDC-EN54 FyreLine Fixed Controller  
FLDEOL-EN54 FyreLine Fixed End of Line  
FLD78-EN54 FyreLine Fixed 78°C LHD Cable  
FLD88-EN54 FyreLine Fixed 88°C LHD Cable

**Trademark** 

**Rating/Classification** See Appendix

**Technical Specifications** EN54-28:2016  
**Supporting Documentation** S36157-D01-EuropeanDirective-Original  
**Additional information** N/A  
**Expiry date** 2031-09-18



**Authorized Certification Decision Maker**  
Chris Miles

This is to certify that representative samples of the Certified Product listed above have been investigated by Underwriters Laboratories to the Standard(s) indicated on this Certificate, in accordance with the UL Global Services Agreement and the UL-EU Mark Service Terms and Conditions ("Agreement"). The Certificate Holder is entitled to use the UL-EU Mark for the Certified Product listed on the certificate and manufactured at the production site(s) listed, in accordance with the terms of the Agreement. Only those products bearing the UL-EU Mark for Europe should be considered as being covered by UL's UL-EU Mark Service. This Certificate shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.



# Appendix UL-EU CERTIFICATE

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Essential Characteristics	Performance	Standard
<b>4 - Product Characteristics</b>	<b>Pass</b>	EN 54-28:2016
<b>5.1 - General</b>	<b>Pass</b>	EN 54-28:2016
<b>5.2 - Nominal activation conditions/sensitivity</b>		
5.2.1 -Individual alarm indication	<b>Pass</b>	EN 54-28:2016
5.2.2 -Signalling	<b>Pass</b>	EN 54-28:2016
<b>5.3 - Operational reliability</b>		
5.3.1 -Maximum ambient temperature test (endurance) for sensing element	<b>Pass</b>	EN 54-28:2016
5.3.2 -Connection of ancillary devices	<b>Pass</b>	EN 54-28:2016
5.3.3 -Manufacturer's adjustments	<b>Pass</b>	EN 54-28:2016
5.3.4 -Requirements for software-controlled detectors	<b>Pass</b>	EN 54-28:2016
5.3.5 -Sensing element fault	<b>Pass</b>	EN 54-28:2016
5.3.6 -On-site adjustment of response behaviour	<b>NA</b>	
<b>5.4 - Tolerance to supply voltage</b>		
5.4.1 -Variation in supply parameters	<b>Pass</b>	EN 54-28:2016
5.4.2 -Low voltage fault (sensor control unit with external power supply)	<b>Pass</b>	EN 54-28:2016
<b>5.5 - Performance parameters under fire condition</b>	<b>Pass</b>	EN 54-28:2016
<b>5.6 - Durability of performance parameters under fire condition</b>		
<b>5.6.1 - Temperature resistance</b>		
5.6.1.1 -Dry heat (operational)test for sensor control unit	<b>Pass</b>	EN 54-28:2016
5.6.1.2-Cold (operational) for sensing element	<b>Pass</b>	EN 54-28:2016
5.6.1.3-Cold (operational) for sensor control unit	<b>Pass</b>	EN 54-28:2016
<b>5.6.2 - Humidity resistance</b>		
5.6.2.1-Damp heat, stead-state(endurance) for sensor control unit and sensing element	<b>Pass</b>	EN 54-28:2016
5.6.2.2-Damp heat, cyclic(operational) for sensing element	<b>Pass</b>	EN 54-28:2016
5.6.2.3-Damp heat, cyclic (operational) for sensor control unit	<b>Pass</b>	EN 54-28:2016
5.6.2.4-Damp heat, steady-state (operational) for sensor control unit	<b>NA</b>	
5.6.2.5-Damp heat, cyclic (endurance) for sensor control unit and sensing element	<b>NA</b>	
<b>5.6.3 - Shock and vibration resistance</b>		
5.6.3.1 -Shock (operational) for sensor control unit	<b>Pass</b>	EN 54-28:2016
5.6.3.2-Impact (operational) for sensor control unit	<b>Pass</b>	EN 54-28:2016
5.6.3.3-Impact (operational) for sensing element	<b>Pass</b>	EN 54-28:2016
5.6.3.4-Vibration, sinusoidal (operational) for sensor control unit	<b>Pass</b>	EN 54-28:2016
5.6.3.5-Vibration, sinusoidal (operational) for sensing element	<b>Pass</b>	EN 54-28:2016
5.6.3.6-Vibration, sinusoidal (endurance) for sensor control unit	<b>Pass</b>	EN 54-28:2016
5.6.3.7-Vibration, sinusoidal (endurance) for sensing element	<b>Pass</b>	EN 54-28:2016
<b>5.6.4 - Test for corrosion resistance</b>		
5.6.4.1 -Sulphur dioxide (SO <sub>2</sub> ) corrosion (endurance) for sensing element	<b>Pass</b>	EN 54-28:2016
5.6.4.2 -Sulphur dioxide (SO <sub>2</sub> ) corrosion (endurance) for sensor control unit	<b>Pass</b>	EN 54-28:2016
<b>5.6.5 - Electrical stability</b>	<b>Pass</b>	EN 54-28:2016



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Ratings for Sensor Control Unit (FLDC-EN54)	
Operating Voltage:	24 VDC (12-36 VDC)
Alarm Relay Rating:	30 VAC/42.4 VDC, 2 A (2 x Form C)
Fault Contact Ratings:	35 VDC maximum, 80 mA maximum (2 x outputs)
Zone End-of-Line Resistor	3.6 k ohm (Zone 1 and Zone 2)

This device must only be powered with an EN54-4 compliant power supply.

Ratings for Sensing Elements (FLD78-EN54)	
Marked Rating:	T078-V10-A045
Nominal Alarm Temperature:	78°C
Tolerance Alarm Temperature:	±10% (±7.8°C)
Maximum Ambient Temperature:	45°C

Ratings for Sensing Elements (FLD88-EN54)	
Marked Rating:	T088-V10-A065
Nominal Alarm Temperature:	88°C
Tolerance Alarm Temperature:	±10% (±8.8°C)
Maximum Ambient Temperature:	65°C

Ratings for Functional Unit (FLDEOL-EN54)	
N/A	N/A



# Appendix UL-EU Certificate

<b>Certification Mark</b>	UL-EU mark
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