REPORT

Issued by an Accredited Testing Laboratory

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Reference
8P01322-5 Rev1

Rf-Technologies
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BELGIUM

CLASSIFICATION REPORT OF ELEMENT CRE60

(1 appendix)

Sponsor / owner of the report:	Rf-Technologies Lange Ambachtstraat 40 BE-9860 Oosterzele BELGIUM
Prepared by:	RISE - Research Institutes of Sweden Box 857 SE-501 15 Borås SWEDEN
Product name:	CRE60
Classification report No.:	8P01322-5 Rev1
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This classification report consists of 6 pages and may only be used or reproduced in its entirety.

Note:

This report is a revision and replaces the previous report 8P01322-5 dated 2018-06-28.

This revision refers to:
Rev1: Update classification: Editing extend the field of application (EXAP) report by adding the use of actuator BFN24-SR-T and two test reports.
Editorial changes.

1 Introduction

This classification report defines the resistance to fire classification assigned to element CRE60 (as described by the sponsor) in accordance with the procedures given in EN 13501-3:2005+A1:2009.

2 Details of element

2.1 Type of function

The element is defined as an uninsulated single blade fire damper. Its function is to resist fire in respect of integrity and leakage of smoke. According to the owner of this report this product conforms with European product standard EN 15650:2010.

2.2 Description

This element complies with the following technical specifications:

- The element is constructed as a circular duct with an uninsulated girdle, an insulated, single blade fire damper blade and an electrically opened and spring closed fire damper actuating mechanism.
- The fire damper body/housing consists of an shell of a galvanized profiled steel sheet.
- The fire damper blade is constructed of one gypsum board.
- On each side of the gypsum board there is a sheet of galvanized steel.
- Between the gypsum board and the metal plate there are a cold seal.
- Along all of the periphery of the fire damper blade there is an intumescent graphite strip interrupted only by the actuation mechanism.
- The fire damper actuator is placed in line with the actuation mechanism of the damper.
- A temperature sensing element is installed.

The element is fully described in the test reports listed in clause 3.

3 Reports and results in support of this classification

The following test reports and extended application report are presented in support of this classification.

Table: List of used accredited reports.

NAME OF LABORATORY	NAME OF SPONSOR	UNIQUE REF No.	E	I	S	Direction (i – o)	Orientation (ho , ve)
WFGGENT NV	Rf-Technologies NV	18877A Damper A	84	-	84	i → o	ve
		18877A Damper B	81	-	78	i → o	ve
		18878A Damper A	69	-	69	i ← o	ve
		18878A Damper B	58	-	54	i → o	ve
		18879A Damper A	91	-	90	i → o	ve
		18879A Damper B	91	-	83	i → o	ve
		190128C*	-	-	S	-	-
RISE - Research Institutes of Sweden	Rf-Technologies NV	8P01322-1	99	-	99	i → o	ho
		8P01322-2	89	-	83	i → o	ho
		8P01322-3	99	-	99	i ← o	ho
		8P01322-4	Extended application according to EN 15882-2:2015				
Warrington Fire Ghent laboratory Belgium	Rf-Technologies NV	22986A	Report of Cycling test under ambient temperature				
		22986B	Report of Cycling test under ambient temperature				

** Leakage test to achieve the S classification.*

Table: Summary of relevant information in listed test report

UNIQUE REF No.	Size of damper [mm]	Position	Actuator	Sensing element	Cold seal	Opening [mm]	Axis orientation
18877A damper A	Ø 630	Onto face	ONE	FUS72 ONE	Glass fibre textile	Ø 660	Vertical
18877A Damper B	Ø 630	Onto face	ONE	FUS72 ONE	Glass fibre textile	Ø 660	Horizontal
18878A Damper A	Ø 630	Remote	ONE	FUS72 ONE	Glass fibre textile	Ø 690	Horizontal
18878A Damper B	Ø 630	Remote	ONE	FUS72 ONE	Glass fibre textile	Ø 690	Horizontal
18879A Damper A	Ø 630	Remote	BFN24-T	BAT72B-S	Silicone sheeting	Ø 690	Horizontal
18879A Damper B	Ø 630	Remote	ONE	FUS72 ONE	Glass fibre textile	Ø 690	Horizontal
8P01322-1	Ø 630	Onto face	ONE	FUS72 ONE	Glass fibre textile	Ø 660	-
8P01322-3	Ø 630	Remote	ONE	FUS72 ONE	Glass fibre textile	Ø 690	-
8P01322-3	Ø 630	Remote	BFN24-T	BAT72B-S	Glass fibre textile	Ø 690	-
22986A	Ø 630	-	BFN24-SR-T	Report of Cycling test under ambient temperature			
22986B	Ø 315	-	BFN24-SR-T	Report of Cycling test under ambient temperature			

4 Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with EN 13501-3:2005+A1:2009.

4.2 Classification E 60 (ve ho i↔o) S

This element CRE60 has been classified:

Fire resistance classification: E 60 (ve ho i↔o) S

4.2.1 Direct Field of application E 60 (ve ho i↔o) S

The element CRE60 has the following field of application in accordance with EN 1366-2:2015.

Size of fire damper:	Ø 100- Ø 630 mm.
Position:	To be mounted on to the surface or remote from a wall or a floor.
Orientation:	Vertical and horizontal.
Blade axle orientation:	Horizontal or vertical or any angel in between.
Direction:	From inside to outside and vice-versa.
Installation :	**Wall to damper chalking:** RockFit Mono (433 Mono) from Rockwool BVBA
Minimum separation:	200 mm between fire dampers installed in separate ducts. 75 mm between the fire damper and a construction element wall/floor.
Supporting constructions:	**Walls:** Flexible wall, with a minimum thickness of 90 mm, with gypsum boards on each side of studs and insulation, or a fire resistance equal or greater than the classification of the element, (thicker, denser, more layers of boards, as appropriate). Rigid wall constructions of aerated or normal concrete with a minimum thickness of 100 mm and a density equal or higher than 450 kg/m³.

	Floors: Aerated or normal concrete with a minimum thickness of 125 mm and a density equal or higher than 450 kg/m^3 or a fire resistance equal or greater than the classification of the element, (thicker, denser, as appropriate). The element can also be mounted to cellular or hollow masonry blocks or slabs that have a fire resistance time equal or greater than the fire resistance required for the fire damper installation
Mounting:	Screwed to the supporting construction with the reinforcement ring described in technical drawing CRE-D012-10 dated 2018-02-14.

4.2.2 Extended field of application E 60 (ve ho i↔o) S

The element CRE60 has the following field of application in accordance with EN 15882-2:2022.

Parameter	Valid for range
X.23 Change in actuator	The following actuation mechanisms are allowed: - Belimo BFN24-T - ONE - BFN24-SR-T
X.27 Change in temperature sensing element	The following temperature sensing element are allowed: - Belimo BAT72B-S - FUS72 ONE
X.38 Change in cold seal material.	The following cold seal materials are allowed: - “S2100” from Sioen. - “RX® silicone” from Silicone engineering.
X.57 Change in axis orientation	Blade axle orientation to be installed horizontal, vertical or any angel in between.

5 Limitations

5.1 Warning

This European Standard does not represent type approval or certification of the element.

RISE Research Institutes of Sweden AB
Fire and safety - Fire Resistance Management

Performed by
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Examined by
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Verification

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