

## Number: **DdP\_FDR-3G\_A\_EN Koolair**

**1. Unique identification code of the product**

**FDR-3G** (Valid for subtypes: FDR-3G...KR; FDR-3G...KS)

**2. Tipo**

**Fire Damper**

**3. Intended use of the construction product**

**Device for use in HVAC systems at fire boundaries to maintain compartmentation.**

**4. Name, registered trade name and contact address of the manufacturer**

**SAFEAIR S.L. (GRUPO KOOLAIR)**

Polígono San Isidro. 45223 - Seseña – Toledo - España

**5. Where applicable, name and contact address of the authorized representative**

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**6. System of assessment and verification of constancy of performance of the construction product**

**System 1**

**7. Harmonized product standard, test standard, classification standard**

**EN 15650:2010**

**8. Identification number of the notified body**

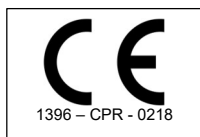
**1396**

Name and address of the notified person

**FIRES s.r.o.,**




































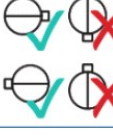
Osloboditeľov 282, 059 35 Batizovce, Slovakia

Notified person performed in system 1 the determination of the product type based on type testing (including sampling) and descriptive documentation of the production initial inspection of the manufacturing plant and of factory production control and continuous surveillance, assessment and evaluation of factory production control and issued certificate of constancy of performance:












# Declaration of performance (DoP)

## 9. Declared performance

 <b>1. Wet</b>	FDR-3G DN100 ... DN1000 (Subpressure: 300 Pa)	EI 60 ( $v_o h_o i \leftrightarrow o$ ) S	a) 	b) 	c) 	 360°
		EI 90 ( $v_o h_o i \leftrightarrow o$ ) S				
		EI 120 ( $v_o h_o i \leftrightarrow o$ ) S				
 <b>1. Wet</b>	FDR-3G DN100 ... DN1000 (Subpressure: 500 Pa)	EI 60 ( $v_o h_o i \leftrightarrow o$ ) S	a) 	b) 	c) 	 360°
		EI 90 ( $v_o h_o i \leftrightarrow o$ ) S				
		EI 120 ( $v_o h_o i \leftrightarrow o$ ) S				
 <b>2. Dry</b>	FDR-3G DN100 ... DN630 (Subpressure: 300 Pa)	EI 60 ( $v_e h_o i \leftrightarrow o$ ) S	a) 	b) 	c) 	 360°
		EI 90 ( $v_e h_o i \leftrightarrow o$ ) S				
 <b>2. Dry</b>	FDR-3G DN630 ... DN1000 (Subpressure: 300 Pa)	EI 60 ( $v_e - i \leftrightarrow o$ ) S	a) 	b) 	 360°	
		EI 90 ( $v_e - i \leftrightarrow o$ ) S				
 <b>3. Soft</b>	FDR-3G DN100 ... DN630 (Subpressure: 300 Pa)	EI 60 ( $v_o h_o i \leftrightarrow o$ ) S	a) 	b) 	c) 	 360°
		EI 90 ( $v_o h_o i \leftrightarrow o$ ) S				
 <b>3H Hilti</b>	FDR-3G DN100 ... DN630 (Subpressure: 300 Pa)	EI 60 ( $v_e - i \leftrightarrow o$ ) S	a) 	b) 	 360°	
		EI 90 ( $v_e - i \leftrightarrow o$ ) S				
 <b>5.1 On &amp; Out</b>	FDR-3G DN100 ... DN400 (Subpressure: 300 Pa)	EI 60 ( $v_e - i \leftrightarrow o$ ) S	a) 	b) 	 360°	
		EI 90 ( $v_e - i \leftrightarrow o$ ) S				
 <b>5.2 On &amp; Out</b>	FDR-3G DN100 ... DN500 (Subpressure: 300 Pa)	EI 60 ( $v_e - i \leftrightarrow o$ ) S	a) 	b) 	 360°	
		EI 60 ( $v_e - i \leftrightarrow o$ ) S				

## Declaration of performance (DoP)

 4 kit	FDR-3G...KR DN100 ... DN630	EI 60 ( $v_e i \leftrightarrow o$ ) S	b) 	 360°	500 Pa	 360°	
		EI 90 ( $v_e i \leftrightarrow o$ ) S					
		EI 120 ( $v_e i \leftrightarrow o$ ) S					
 4 Kit	FDR-3G...KS DN100 ... DN630	EI 60 ( $v_e i \leftrightarrow o$ ) S	a) 	b) 	 360°	500 Pa	 360°
		EI 90 ( $v_e i \leftrightarrow o$ ) S					
		EI 120 ( $v_e i \leftrightarrow o$ ) S					

### Legend:

1. **Wet** - Wet Installation, Using Plaster/Mortar/Concrete Filling .
  2. **Dry** - Dry Installation, using cover boards and mineral wool filling.
  3. **Soft** - Soft Installation, using mineral wool filling.
  - 3H. **Hilti** - Filling made only from Hilti foam.
  4. **Kit** - Kit Installation, using an Installation Kit (subtypes: FDR-3G...KR; FDR-3G...KS).
  - 5.1. **On & Out** - ON & OUT of the wall installation rated for EI90S, Using 2 layers of Mineral Wool.
  - 5.2. **On & Out** - ON & OUT of the wall installation rated for EI60S, Using 1 layer of Mineral Wool.
- a) - Flexible (plasterboard) wall.  
 b) - Concrete/masonry/cellular concrete (rigid) wall.  
 c) - Concrete/cellular concrete (rigid) floor/ceiling.  
 $v_e$  - Vertical wall  
 $h_o$  - Horizontal floor-ceiling

# Declaration of performance (DoP)

## Assessment of FDR-3G and subtypes FDR-3G...KR; FDR-3G...KS;

Property	Test regulation	Classification standard	Technical specification for assessment	Performance	Evaluation
Nominal activation ISO 10294-4 /Sensing element conditions /sensitivity			/ EN 15650 4.2.1.2 4.2.1.2.2 4.2.1.2.3	<ul style="list-style-type: none"> <li>load-bearing capacity in accordance with ISO 10294-4, 4.2;</li> <li>response temperature in accordance with ISO 10294-4, 4.2;</li> </ul>	<b>Satisfied</b>
Response delay (response time)	EN 1366-2	/	EN 15650 4.2.1.3	<ul style="list-style-type: none"> <li>closure time within time period of 2 minutes</li> </ul>	<b>Satisfied</b>
Operational reliability	EN 1366-2 cl. 10.2	/	EN 15650 4.3.1 a)	50 cycles	<b>Satisfied</b>
Fire resistance <ul style="list-style-type: none"> <li>integrity</li> <li>insulation</li> <li>smoke leakage</li> <li>mechanical stability</li> </ul>	EN 1366-2	EN 13501-3 + A1	EN 15650, cl. 4.1.1. a), cl. 4.1.1 b), cl. 4.1.1 c), cl. 4.1.1 a),	See installation Table 9.	<b>Satisfied</b>
Fire resistance <ul style="list-style-type: none"> <li>maintenance of cross-section</li> </ul>	EN 1366-2	EN 13501-3 + A1	EN 15650, cl. 4.4.1 a)	See installation Table 9.	<b>Satisfied</b>
Durability of response delay	ISO 10294-4	/	EN 15650 4.3.3.1	Durability of response delay (by tested temperature response and load-bearing capacity) is preserved.	<b>Satisfied</b>
Durability of operational reliability	EN 15650 Annex C	/	EN 15650 4.3.3.2	10 000 cycles for actuator mechanism 50 cycles - for manual mechanism	<b>Satisfied</b>

# Declaration of performance (DoP)

## Electrical equipment in actuating mechanism:

Type Of Control	Equipment/actuator
Manual Crank (H0, H2, H5-2; H6-2);	Microswitch: 125/250 AC or 12/24 DC Electric Parameters: 3A Electromagnet: 24 AC/DC 230V in Impulse connection
Actuator Belimo (B...):	BFL24-SR-T, BF230-T, BF24-T, BFN230-T, BFN24-T, BFN24-T, BFL230-T, BFL24-T, (also with connection possibilities with acronyms ST, W)

## Tightness class according to EN 1751:

Product type /Sutype and/ or size range	Achieved class at pressure
FDR-3G; FDR-3G .. KS; FDR-3G .. KR	Casing class "C" up to 500 Pa Blade class "3" up to 500 Pa

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Móstoles, 10 / 07 / 2023

José Tomás Susarte, Director General