

Declaration of Performance

Number: DeclarationOfPerformance_FDR-3G_D_EN

1. Unique identification code of the product

FDR-3G

Valid for all subtypes: **FDR-3G...KR; FDR-3G...KS; FDR-3G...EX; FDR-3G...OF**

2. Type

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

Systemair Production a.s.

Hlavná 371,
90043 Kalinkovo, Slovakia

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

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 15 650:2010

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:



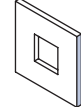














































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9. Declared performance:

Installations:

 1 Wet	FDR-3G DN100 ... DN1000	EI 60 ($v_e h_o i \leftrightarrow o$) S	a) 	b) 	c) 	 360°
		EI 90 ($v_e h_o i \leftrightarrow o$) S				
		EI 120 ($v_e h_o i \leftrightarrow o$) S				
 2 Dry	FDR-3G DN100 ... DN630	EI 60 ($v_e h_o i \leftrightarrow o$) S	a) 	b) 	c) 	 360°
		EI 90 ($v_e h_o i \leftrightarrow o$) S				
 3 Soft	FDR-3G DN100 ... DN630	EI 60 ($v_e h_o i \leftrightarrow o$) S	a) 	b) 	c) 	 360°
		EI 90 ($v_e h_o i \leftrightarrow o$) S				
 3H Hilti	FDR-3G DN100 ... DN630	EI 60 ($v_e - i \leftrightarrow o$) S	a) 	b) 	 360°	
		EI 90 ($v_e - i \leftrightarrow o$) S				
 5.1 On, Out	FDR-3G DN100 ... DN400	EI 60 ($v_e - i \leftrightarrow o$) S	a) 	b) 		
		EI 90 ($v_e - i \leftrightarrow o$) S				
 5.2 On, Out	FDR-3G DN100 ... DN500	EI 60 ($v_e - i \leftrightarrow o$) S	a) 	b) 		
		EI 60 ($v_e - i \leftrightarrow o$) S				
 4 Kit	FDR-3G...KR DN100 ... DN630	EI 60 ($v_e i \leftrightarrow o$) S	b) 	 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°
		EI 90 ($v_e i \leftrightarrow o$) S			
		EI 120 ($v_e i \leftrightarrow o$) S			
 1 Wet	FDR-3G...EX DN100 ... DN1000	EI 60 ($v_e h_o i \leftrightarrow o$) S	a) 	b) 	c)  360°
		EI 90 ($v_e h_o i \leftrightarrow o$) S			
		EI 120 ($v_e h_o i \leftrightarrow o$) S			
 2 Dry	FDR-3G...EX DN100 ... DN630	EI 60 ($v_e h_o i \leftrightarrow o$) S	a) 	b) 	c)  360°
		EI 90 ($v_e h_o i \leftrightarrow o$) S			
	FDR-3G...EX > DN630 ... DN1000	EI 60 ($v_e - i \leftrightarrow o$) S	a) 	b) 	 360°
		EI 90 ($v_e - i \leftrightarrow o$) S			
 3 Soft	FDR-3G...EX DN100 ... DN630	EI 60 ($v_e h_o i \leftrightarrow o$) S	a) 	b) 	c)  360°
		EI 90 ($v_e h_o i \leftrightarrow o$) S			
 3H Hilti	FDR-3G...EX DN100 ... DN630	EI 60 ($v_e - i \leftrightarrow o$) S	a) 	b) 	 360°
		EI 90 ($v_e - i \leftrightarrow o$) S			
 5.1 On, Out	FDR-3G...EX DN100 ... DN400	EI 60 ($v_e - i \leftrightarrow o$) S	a) 	b) 	
		EI 90 ($v_e - i \leftrightarrow o$) S			
 5.2 On, Out	FDR-3G...EX DN100 ... DN500	EI 60 ($v_e - i \leftrightarrow o$) S	a) 	b) 	

 1 Wet	FDR-3G...OF DN200 ... DN630	EI 60 (v_e i \leftrightarrow o) S	 a)	 b)	 360°
		EI 90 (v_e i \leftrightarrow o) S			
		EI 120 (v_e i \leftrightarrow o) S			
 2 Dry	FDR-3G...OF DN200 ... DN630	EI 60 (v_e i \leftrightarrow o) S	 a)	 b)	 360°
		EI 90 (v_e i \leftrightarrow o) S			
 3 Soft	FDR-3G...OF DN200 ... DN630	EI 60 (v_e i \leftrightarrow o) S	 a)	 b)	 360°
		EI 90 (v_e i \leftrightarrow o) S			
 3H Hilti	FDR-3G...OF DN200 ... DN630	EI 60 (v_e - i \leftrightarrow o) S	 a)	 b)	 360°
		EI 90 (v_e - i \leftrightarrow o) S			

Note:

Installations of subtype **FDR-3G...OF** were tested without connected duct, with natural convection.

Legend:

- 1. Wet** - Wet Installation, Using Plaster/Mortar/Concrete Filling
- 2. Dry** - Dry Installation, using cover boards and mineral wool filing
- 3. Soft** - Soft Installation, using mineral wool filing
- 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

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

Property	Test regulation	Classification standard	Technical specification for assessment	Performance expressed	Evaluation
Nominal activation /Sensing element conditions /sensitivity	ISO 10294-4	/	EN 15650 4.2.1.2 4.2.1.2.2 4.2.1.2.3	• load-bearing capacity in accordance with ISO 10294-4, 4.2; • response temperature in accordance with ISO 10294-4, 4.2;	Satisfied
Response delay (response time)	EN 1366-2	/	EN 15650 4.2.1.3	• closure time within time period of 2 minutes	Satisfied
Operational reliability	EN 1366-2 cl. 10.2	/	EN 15650 4.3.1 a)	50 cycles	Satisfied
Fire resistance • integrity • insulation • smoke leakage • mechanical stability	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.	Satisfied
Fire resistance • maintenance of cross-section	EN 1366-2	EN 13501-3 + A1	EN 15650, cl. 4.4.1 a)	See installation Table 9.	Satisfied
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.	Satisfied
Durability of operational reliability	EN 15650 Annex C	/	EN 15650 4.3.3.2	10 000 cycles for actuator mechanism 20 000 cycles for MOD actuator mechanism 50 cycles - for manual mechanism	Satisfied

Electrical equipment in actuating mechanism:

Type of control	Equipment/Actuator
Manual crank (H2, H5-2, H6-2):	Microswitch: 125/250V AC or 12/24V DC Electric Parameters: 3A Electromagnet: 24V AC/DC/ 230 V AC in impulse/ interruption connection
Actuator Belimo (B...):	BLF230-T, BLF24-T, BFL24-SR-T, BF230-T, BF24-T, BF24-SR-T, BFN230-T, BFN24-T, BFN24-T, BFL230-T, BFL24-T, BFL24-SR-T (also with connection possibilities with acronyms ST, W)
Actuator Gruner (G...):	360TA-230-12-S2, 360CTA-024-12-S2, 360TA-024-12-S2, 340TA-230D-03-S2, 340TA-024D-03-S2, 340CTA-024D-03-S2, 340TA-230-05-S2, 340TA-024-05-S2, 340CTA-024-05-S2 (also with connection possibilities with acronyms ST, W)
Actuator Schischek (SET-EX; SRT-EX):	ExMax-15 BF; RedMax-15 BF

Tightness class according to EN 1751:

Product type/subtype and/or size range	Achieved class at pressure
FDR-3G; FDR-3G...EX; FDR-3G...OF; 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:

Kalinkovo, April 12, 2021


Ing. Maroš Chlebo, Managing Director