



**PAVUS, a.s.**  
Notified Body No. 1391  
Prosecká 412/74, 190 00 Praha 9 - Prosek  
Decision No. 6/2017-CPR from 25<sup>th</sup> January 2017

## **CERTIFICATE OF CONSTANCY OF PERFORMANCE**

**No. 1391-CPR-2018/0201**

In compliance with the Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Product regulation or CPR), this certificate applies to the construction product

### **Fire damper**

**Halton Exe Tough Circular, EI 120 S (ETC)  
Halton Exe Tough Rectangular, EI 120 S (ETR)**

**Technical parameters of the product:**  
are stated in the Annex No. 1 of this Certificate of constancy of performance

#### **Intended use of the product in buildings:**

Fire dampers are used in conjunction with partitions to maintain fire compartments and protect means of escape in case of fire in heating, ventilation and air conditioning (HVAC) systems in buildings, under methods of use and installation conditions stated in certification report and related documentation. All fire dampers close automatically in response to raised temperatures indicating fire.

placed on the market under the name or trade mark of:

**Halton Oy**

**Haltonintie 1-3, FI-47400 KAUSALA, Finland, Id No: FI 18404345**

and produced in the manufacturing plant:

**code: Hal 26724**

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard:

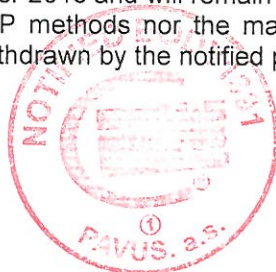
**EN 15650:2010**

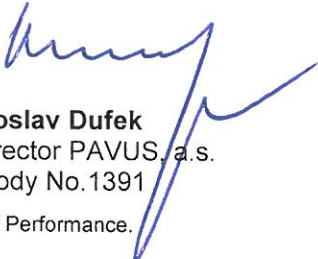
under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

**constancy of performance of the construction product.**

This certificate was first issued on 24th October 2018 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

In Prague 24th October 2018



  
**Ing. Jaroslav Dufek**  
Managing Director PAVUS, a.s.  
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**Technical parameters of the product <sup>1)</sup>**

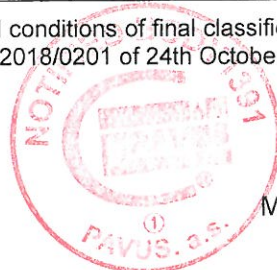
- External dimension of the element: - circular from min. diameter 180 mm to max. diameter 1 000 mm,  
- rectangular (w × h) from min. (180 × 180) mm to max. (1 500 × 800) mm - type with control out of axis of blade,  
or to max. (1 600 × 1 000) mm - type with control in axis of blade.
- Construction length: min. 375 mm, max. 500 mm
- Starting devices and drives: - fuse safety lock 72 °C/95 °C/104 °C/147 °C with closing spring  
- pulse magnetic drive  
- Bellimo - spring drive with starting device 72 °C/95 °C  
- Gruner - spring drive with starting device 72 °C/95 °C  
- Schischek - spring drive with starting device 72 °C/95 °C  
All used marks of drives fulfil 10 000 cycles according to EN 15650:2010.
- Material versions: - galvanized sheet metal  
- stainless sheet metal  
- painted sheet metal
- Leak tightness of the damper according to EN 1751:2014:  
- leakage through blade - min. class 2 (rectangular) and class 3 (circular)  
- case leakage - min. class C
- The classification according to EN 13501-3:2005+A1:2009:

**EI 90 (ve ho i↔o) S**  
**EI 120 (ve ho i↔o) S**

**Assessed characteristics of the product**

Essential characteristics	Requirements of EN 15650	Findings <sup>1)</sup>	Conformity assessment
Nominal activation conditions/sensitivity:	4.2.1.2	Comply with EN 15650, 4.2.1.2	conforms
- sensing element response temperature	4.2.1.2.2	Comply with EN 15650, 5.2.5, ISO 10294-4:2001, 4.2	conforms
- sensing element load bearing capacity	4.2.1.2.3	Comply with EN 15650, 5.2.5, ISO 10294-4:2001, 4.2	conforms
Response delay (response time): - closure time	4.2.1.3	< 2 min, according to EN 15650, 5.2.4, EN 1366-2, 10.4.6	conforms
Operational reliability: - cycling	4.3.1, a)	50 cycles performed prior to test	conforms
<b>Fire resistance</b>			
- integrity	4.1.1, a)	E	conforms
- insulation	4.1.1, b)	EI	conforms
- smoke leakage	4.1.1, c)	ES/EIS	conforms
- mechanical stability (under E)	4.1.1, a)	-	NPD
- maintenance of the cross section (under E)	4.1.1, a)	-	NPD
Durability of response delay: - sensing element response to temperature and load bearing capacity	4.2.1.2.2 4.2.1.2.3	Requirements on sensing element fulfilled according to EN 15650, 4.2.1.2	conforms
Durability of operational reliability: - open and closing cycle tests	4.3.3.2	Cycling test performed (10 000+100+100 cycles) according to EN 15650, Annex C.3.2	conforms
<b>Other characteristics</b>			
Resistance against corrosion	4.2.2 Annex B	Salt spray exposure test (EN 60068-2-52) – no corrosion occurred	conforms

<sup>1)</sup> Detailed technical parameters, fire classification and conditions of final classification according to EN 13501-3:2005+A1:2009 are stated in the Certification Report No. P-1391-CPR-2018/0201 of 24th October 2018.



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