



CTO S.A.

Notified Body No. 2434

Centrum Techniki Okrętowej S.A.
Product Certification Division
Szczecińska 65, 80-392 Gdańsk, Poland
phone: +48 58 307 45 28
e-mail: certyfikacja@cto.gda.pl

CENTRUM TECHNIKI OKRĘTOWEJ S.A.

PRODUCT CERTIFICATION DIVISION



AC 170

CERTIFICATE OF CONSTANCY OF PERFORMANCE

2434-CPR-0035

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

Uninsulated fire damper ELC

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

Halton Oy
Haltonintie 1 – 3
47400 Kausala, Finland

and produced in the manufacturing plant:

Halton Oy
Haltonintie 1 – 3
47400 Kausala, Finland

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 04.04.2019 and will remain valid as long as neither the harmonised standard, the construction product, the assessment and verification of constancy of performance methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Małgorzata Sulimierska
Head of Product Certification Division of CTO S.A.

Zbigniew Karpiński
President of Board of CTO S.A.

Gdańsk, 04.04.2019

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Performance of uninsulated fire damper ELC mounting within the separating element

Essential characteristics	Requirements of EN 15650:2010 Standard	Level and/or class	Conformity
Nominal activation conditions/sensitivity	4.2.1.2	E 60 (ho o↔i) S E 90 (ve i↔o) S E 120 (ve, ho i↔o) S	fulfils
Sensing element response temperature	4.2.1.2.2	-	fulfils
Sensing element load bearing capacity	4.2.1.2.3	-	fulfils
Response delay (response time)			
Closure time	4.2.1.3	≤ 2 min	fulfils
Operational reliability			
Cycling	4.3.1a	50 cycles	fulfils
Fire resistance			
- integrity	4.1.1a	E60 (ve, ho) E 90 (ve, ho) E 120 (ve, ho)	fulfils
- insulation	4.1.1.b	-	fulfils
- smoke leakage	4.1.1c	S	fulfils
- mechanical stability (under E)	4.1.1a	-	fulfils
- maintenance of the cross section (under E)	4.1.1a	-	fulfils
Durability of response delay			
Sensing element response to temperature and load bearing capacity	4.2.1.2.2 4.2.1.2.3	-	fulfils
Durability of operational reliability			
Open and closing cycle tests	4.3.3.2	300 (manual actuator) 10 000 (thermo-electrical actuator)	fulfils fulfils

Performance of uninsulated fire damper ELC mounting remote from the separating element

Essential characteristics	Requirements of EN 15650:2010 Standard	Level and/or class	Conformity
Nominal activation conditions/sensitivity	4.2.1.2	E 120 (ve, ho i↔o) S	fulfils
Sensing element response temperature	4.2.1.2.2	-	fulfils
Sensing element load bearing capacity	4.2.1.2.3	-	fulfils
Response delay (response time)			
Closure time	4.2.1.3	≤ 2 min	fulfils
Operational reliability			
Cycling	4.3.1a	50 cycles	fulfils
Fire resistance			
- integrity	4.1.1a	E 120 (ve, ho)	fulfils
- insulation	4.1.1.b	-	fulfils
- smoke leakage	4.1.1c	S	fulfils
- mechanical stability (under E)	4.1.1a	-	fulfils
- maintenance of the cross section (under E)	4.1.1a	-	fulfils
Durability of response delay			
Sensing element response to temperature and load bearing capacity	4.2.1.2.2 4.2.1.2.3	-	fulfils
Durability of operational reliability			
Open and closing cycle tests	4.3.3.2	300 (manual actuator) 10 000 (thermo-electrical actuator)	fulfils fulfils

Technical parameters of uninsulated fire damper ELC mounting within the separating element

Shape, dimensions :	circular of 100 mm minimum, 500 mm maximum diameter
Housing material	galvanized steel sheet, painted steel sheet, stainless steel metal, 0,6 mm thickness
Blade:	rotary barrier 34,5 mm thick
Release mechanism:	Siemens actuator GNA126.1E/T12 Siemens actuator GNA326.1E/T12 Siemens actuator GNA166.1E/T12 with modulating control Manual release mechanism with 70°C fuse Belimo actuators, family BFN 24 with thermo-electrical triggering device BAT72 for E60 and E90 class only.
Separating elements:	
Vertical:	- 125 mm thick standard, insulated, flexible supporting construction EI60 class - 135 mm thick standard, insulated, flexible supporting construction EI120 class
Mounting within the separating element	- Rigid supporting construction of the thicknesses greater than or equal to that of the element used in the test with the fire resistance greater than or equal to that of the standard supporting construction used in the test.
Horizontal:	
Mounting within the separating element	- 110 mm thick normal concrete floor construction of 2200±200 kg/m ³ density (for E60 and E90 class) - 150 mm thick normal concrete floor construction, the density of the floor was 2200±200 kg/m ³
Supporting construction of the same type with the fire resistance greater than or equal to that of the standard supporting construction used in the test is allowed.	
Minimal distance between dampers installed in separate ducts:	200 mm
Minimal distance between damper installed in separating element and nearby wall or ceiling:	75 mm
Assembly method	The gaps between the housing of the damper and the supporting construction (wall/floor) were filled with 80 kg/m ³ dense mineral wool.

Detailed technical parameters and final classification conditions in accordance with EN 13501-3+A1:2010 can be found in Classification Reports No. LBO-963-K/17E dated 03.08.2017, LBO-1021-K/17E dated on 07.03.2018, LBO-1088-K/17E dated 28.03.2018, LBO-1130-K/18E dated 24.04.2018 and LBO-1247-K/18E dated on 28.12.2018.

Technical parameters of uninsulated fire damper ELC mounting remote from the separating element

Shape, dimensions :	circular of 100 mm minimum, 500 mm maximum diameter
Housing material	galvanized steel sheet, painted steel sheet, stainless steel metal, 0,6 mm thickness
Blade:	rotary barrier 34.5 mm thick
Release mechanism:	Siemens actuator GNA126.1E/T12 Siemens actuator GNA326.1E/T12 Siemens actuator GNA166.1E/T12 with modulating control Manual release mechanism with 70°C fuse Belimo actuators, family BFN 24 with thermo-electrical triggering device BAT72 for E60 and E90 class only.
Separating elements, mounting within the separating element	
Vertical:	
Mounting remote from the separating element	- 135 mm thick standard, insulated, flexible supporting construction EI120 class -150 mm thick wall made of aerated concrete blocks
Horizontal	
Mounting remote from the separating element	- 150 mm thick normal concrete floor construction, the density of the floor was 2200+-200 kg/m ³
Supporting construction of the same type with the fire resistance greater than or equal to that of the standard supporting construction used in the test is allowed.	
Minimal distance between dampers installed in separate ducts:	200 mm
Minimal distance between damper installed in separating element and nearby wall or ceiling:	75 mm
Assembly method	The gaps between the duct and the supporting construction (floor) were filled with 80 kg/m ³ dense mineral wool or fire stop sealing mass (wall).

Detailed technical parameters and final classification conditions in accordance with EN 13501-3 + A1: 2009 can be found in Classification Reports No. LBO-1135-K/18E dated 17.05.2018 and LBO-1253-K/18E dated 18.02.2019.

Intended use:

In air ventilation systems for protection of ventilation crossing in separating elements. Works against spreading of fire and smoke by ventilation installations through maintaining of integrity and/or insulation and/or smoke leakage criteria.