

Declaration of performance

DoP/FKS-EU/DE/003



TROX[®] TECHNIK
The art of handling air

1 Product

FKS-EU

Unique identification code of the product type

2 Intended use

Fire damper

3 Manufacturer

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5 System of assessment and verification of constancy of performance

System 1

6 Harmonised standard



EN 15650:2010

Notified body/ies

The notified body 1322 - IBS - carried out the initial inspection of the manufacturing plants and of the factory production control as well as the continuous surveillance, assessment and evaluation of factory production control according to System 1 of the Construction Products Regulation and issued the certificate of constancy of performance:

1322-CPR-74135/04
1322-CPR-61977/04

7 Declared performances

Essential characteristic: fire resistance — size [mm]: 200 × 100 to 800 × 200				
Supporting construction	Construction	Installation location	Installation type	Performance class (EI TT) up to
 Solid wall	$d \geq 100$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings	in the wall	Mortar-based installation	EI 120 (v_e i \leftrightarrow o) S
	$d \geq 100$ mm, ≥ 50 mm distance to load-bearing structural elements, ≥ 150 mm horizontal distance between casings, ≥ 100 mm vertical distance between casings	in the wall	Dry mortarless installation	EI 90 (v_e i \leftrightarrow o) S
 Lightweight partition wall	Metal stud wall, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 98$ mm, with or without mineral wool, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings	in the wall	Mortar-based installation	EI 120 (v_e i \leftrightarrow o) S


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Supporting construction	Construction	Installation location	Installation type	Performance class (EI TT) up to
 <p>Lightweight partition wall</p>	<p>Metal stud wall, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 98$ mm, with or without mineral wool, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings</p>	in the wall	Dry mortarless installation	EI 90 (v_e i↔o) S
	<p>Metal stud wall with sheet steel insert, used as a compartment wall, safety partition wall or to provide radiation protection, gypsum bonded or cement bonded panel materials or fibre-reinforced gypsum boards, $d \geq 100$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings</p>	in the wall	Mortar-based installation	EI 120 (v_e i↔o) S
	<p>Metal stud wall with sheet steel insert, used as a compartment wall, safety partition wall or to provide radiation protection, gypsum bonded or cement bonded panel materials or fibre-reinforced gypsum boards, $d \geq 100$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings</p>	in the wall	Dry mortarless installation	EI 90 (v_e i↔o) S
	<p>Metal stud wall, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 75$ mm, with or without mineral wool, wall thickness increased to $d \geq 98$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings</p>	in the wall	Mortar-based installation	EI 30 (v_e i↔o) S
	<p>Metal stud wall, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 75$ mm, with or without mineral wool, wall thickness increased to $d \geq 98$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings</p>	in the wall	Dry mortarless installation	EI 30 (v_e i↔o) S
	<p>Timber stud wall (also timber panel constructions and timber frames), gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 130$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings</p>	in the wall	Mortar-based installation	EI 90 (v_e i↔o) S
	<p>Timber stud wall (also timber panel constructions and timber frames), gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 130$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings</p>	in the wall	Dry mortarless installation	EI 90 (v_e i↔o) S
	<p>Timber stud wall (also timber panel constructions and timber frames), gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 105$ mm, wall thickness increased to $d \geq 130$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings</p>	in the wall	Mortar-based installation	EI 30 (v_e i↔o) S
	<p>Timber stud wall (also timber panel constructions and timber frames), gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 105$ mm, wall thickness increased to $d \geq 130$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings</p>	in the wall	Dry mortarless installation	EI 30 (v_e i↔o) S

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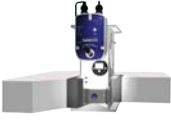
Supporting construction	Construction	Installation location	Installation type	Performance class (EI TT) up to
 Lightweight partition wall	Half-timbered construction, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 140$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings	in the wall	Mortar-based installation	EI 90 (v_e i \leftrightarrow o) S
	Half-timbered construction, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 140$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings	in the wall	Dry mortarless installation	EI 90 (v_e i \leftrightarrow o) S
	Half-timbered construction, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 115$ mm, wall thickness increased to $d \geq 140$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings	in the wall	Mortar-based installation	EI 30 (v_e i \leftrightarrow o) S
	Half-timbered construction, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards, $d \geq 115$ mm, wall thickness increased to $d \geq 140$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings	in the wall	Dry mortarless installation	EI 30 (v_e i \leftrightarrow o) S
 Lightweight partition wall	Solid wood wall/CLT wall, $d \geq 95$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 80 mm distance between casings	in the wall	Mortar-based installation	EI 90 (v_e i \leftrightarrow o) S
	Solid wood wall/CLT wall, $d \geq 95$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings	in the wall	Dry mortarless installation	EI 90 (v_e i \leftrightarrow o) S
 Shaft wall	Metal support structure or steel support structure, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards with cladding on one side, $d \geq 90$ mm, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings	in the wall	Mortar-based installation	EI 90 (v_e i \leftrightarrow o) S
	Metal support structure or additional safety board, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards with cladding on one side, $d \geq 90$ mm with reinforcing board, ≥ 40 mm distance to load-bearing structural elements, ≥ 150 mm distance between casings	in the wall	Mortar-based installation	EI 30 (v_e i \leftrightarrow o) S
	Metal support structure, additional safety board, gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum or fire-rated calcium silicate boards with cladding on one side, $d \geq 90$ mm, ≥ 150 mm distance between casings	in the wall	Dry mortarless installation	EI 90 (v_e i \leftrightarrow o) S
 Solid ceiling slab	$d \geq 100$ mm, ≥ 80 mm distance between casings	in the ceiling	Mortar-based installation	EI 120 (h_e i \leftrightarrow o) S

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 Solid ceiling slab	d ≥ 100 mm, combined with wooden beam ceilings, ≥ 80 mm distance between casings	in the ceiling	Mortar-based installation	EI 90 (h ₀ i↔o) S
	d ≥ 100 mm, combined with suspended ceiling systems (Cadolto system), ≥ 80 mm distance between casings	in the ceiling	Mortar-based installation	EI 120 (h ₀ i↔o) S

7 Declared performances

Essential characteristics	Technical specification	Performance
Nominal activation conditions/sensitivity <ul style="list-style-type: none"> Sensing element load-bearing capacity Sensing element response temperature 72 °C, 95 °C 	ISO 10294-4:2001	Pass
Response delay/response time <ul style="list-style-type: none"> Closure time 	EN 1366-2:2015	Pass
Operational reliability <ul style="list-style-type: none"> Open and closing cycle, 50 cycles 	EN 15650:2010 EN 1366-2:2015	Pass
Durability of response delay <ul style="list-style-type: none"> Sensing element response to temperature and load-bearing capacity 	ISO 10294-4:2001	Pass
Durability of operational reliability <ul style="list-style-type: none"> Testing of the open and closing cycle, 10,000 cycles <ul style="list-style-type: none"> – BLF 230-T-(ST) TR, BLF 24-T-(ST) TR – BF 230-T-(ST) TR, BF 24-T-(ST) TR – BF 24-TL-T-ST(-2) TR – BFN 230-T-(ST) TR, BFN 24-T-(ST) TR – BFL 230-T-(ST) TR, BFL 24-T-(ST) TR – ExMax 15-BF TR, RedMax 15-BF TR – GGA126.1E/T../GGA326.1E/T... – GRA126.1E/T../GRA326.1E/T... – GNA126.1E/T../GNA326.1E/T... – SFR 1.90 T SLC – SFR 1.90 T, SFR 2.90 T 	EN 15650:2010	Pass
Protection against corrosion	EN 15650:2010	Pass
Damper blade leakage	EN 1751:2014	At least class 2
Damper casing leakage	EN 1751:2014	Class C

The classification of the fire damper must not be higher than the classification of the wall or ceiling slab it is installed in. In this case the class of performance of the wall or ceiling slab applies also to the fire damper.

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with regulation (EU) no. 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of TROX GmbH:

Neukirchen-Vluyn, 1 September 2017

Jan Heymann
Jan Heymann • Authorised Representative • CE-marked products