


Declaration of Performance

DoP/FKRS-EU/DE/006



1.	Product Unique identification code of the product type	Fire damper FKRS-EU
2.	Intended use	In conjunction with walls and ceilings for maintaining fire compartments in heating, ventilation and air conditioning installations
3.	Manufacturer	TROX GmbH Heinrich-Trox-Platz • 47504 Neukirchen-Vluyn • Germany Phone +49 (0) 2845 2020 • Fax +49 (0) 2845 202265 E-mail trox-de@troxgroup.com • Internet www.troxtechnik.com
5.	System of assessment and verification of constancy of performance	System 1
6.	Harmonised standard Notified body/ies	EN 15650:2010 The notified body 1322 - IBS - carried out the initial inspection of the manufacturing plants and 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-74135/02

7 Declared performances

Supporting construction	Construction	Installation location	Installation type	Performance class up to
 Solid wall	<ul style="list-style-type: none"> d ≥ 75 mm Distance to load-bearing structural elements ≥ 40 mm Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> in the wall 	Mortar-based installation	EI 120 (v _e i↔o) S
	<ul style="list-style-type: none"> d ≥ 100 mm Distance to load-bearing structural elements ≥ 40 mm Distance between casings ≥ 40 mm 	<ul style="list-style-type: none"> in the wall 	Mortar-based installation	EI 120 (v _e i↔o) S



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	<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 80 \text{ mm}$ • Gypsum wall boards • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 120 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Combined assembly up to 1.2 m^2 total fire damper area • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance to fire dampers FK-EU/FK2-EU $\geq 50 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Multiple occupancy up to 1.2 m^2 total fire damper area • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Distance to load-bearing structural elements $40 - 50 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Mortar-based installation (and partly with mineral wool)	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Below flexible ceiling joints • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Installation block ER • Distance from installation block to load-bearing structural elements $\geq 75 \text{ mm}$ • Distance between installation blocks $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 120 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Installation kit WA2 • Distance to load-bearing structural elements $\geq 75 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• on the face of the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S DoP - 07/2024 - DE/en

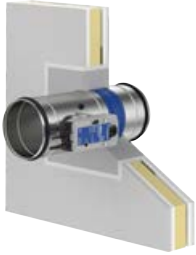


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<ul style="list-style-type: none"> • $d \geq 100$ mm • Installation kit WE2 • Wall connection • Cladding on 2, 3 or 4 sides • Distance to load-bearing structural elements ≥ 50 mm • Distance between casings ≥ 260 mm 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • Installation kit WE2 • Wall penetration • Cladding on 2, 3 or 4 sides • Distance to load-bearing structural elements ≥ 50 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • Mineral wool insulation • Mortar-based installation • Distance to load-bearing structural elements ≥ 200 mm • Distance between casings ≥ 400 mm 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • Mineral wool insulation • Fire batt • Distance to load-bearing structural elements ≥ 200 mm • Distance between casings ≥ 400 mm 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 40 mm 	<ul style="list-style-type: none"> • in the wall 	Fire batt	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	<ul style="list-style-type: none"> • in the wall 	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • Multiple occupancy up to 1.2 m² total fire damper area • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	<ul style="list-style-type: none"> • in the wall 	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S



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	<ul style="list-style-type: none"> • $d \geq 100$ mm • 2-plate mineral wool bulkhead (combined penetration seal) • Distance to load-bearing structural elements ≥ 40 mm • Distance to fire dampers FK-EU/FK2-EU ≥ 50 mm • Distance to pipe openings ≥ 50 mm • Distance to cable openings ≥ 100 mm • Distance between casings ≥ 40 mm 	• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100$ mm • Fire protection stone bulkhead system Hilti CFS-BL • Distance to load-bearing structural elements ≥ 50 mm • Distance to cable penetrations and empty pipes ≥ 200 mm • Distance between fire damper and penetration seal edge ≥ 50 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
 <p>Lightweight partition wall</p>	<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 40 mm 	• in the wall	Mortar-based installation	EI 120 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 80$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 60 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 75 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 30 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • Combined assembly up to 1.2 m^2 total fire damper area • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance to fire dampers FK-EU/FK2-EU $\geq 50 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • Multiple occupancy up to 1.2 m^2 total fire damper area • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • Without installation kit • Distance to load-bearing structural elements $\geq 75 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 80 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 75 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 30 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • Installation kit WE2 • Cladding on 2, 3 or 4 sides • Distance to load-bearing structural elements $\geq 50 \text{ mm}$ • Distance between casings $\geq 300 \text{ mm}$ 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • Mineral wool insulation • Joint filler • Distance to load-bearing structural elements $\geq 200 \text{ mm}$ • Distance between casings $\geq 400 \text{ mm}$ 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • Mineral wool insulation • Fire batt • Distance to load-bearing structural elements $\geq 200 \text{ mm}$ • Distance between casings $\geq 400 \text{ mm}$ 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also with steel support structure) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d = 94 - 100 \text{ mm}$ • Installation kit GL2 • Direct wall installation • Distance to load-bearing structural elements $\geq 90 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	<ul style="list-style-type: none"> • in the wall 	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 100 \text{ mm}$ • Flexible ceiling joint • Installation kit GL2 • Distance to load-bearing structural elements $\geq 50 \text{ mm}$ • Distance between casings $\geq 100 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Fire batt	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 94 \text{ mm}$ • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 80 \text{ mm}$ • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Fire batt	EI 60 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none">• Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection)• With or without mineral wool• Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate• $d \geq 75$ mm• 2-plate mineral wool bulkhead (2 x 50 mm)• Distance to load-bearing structural elements ≥ 40 mm• Distance between casings ≥ 10 mm	<ul style="list-style-type: none">• in the wall	Fire batt	EI 30 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none">• Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection)• With or without mineral wool• Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate• $d \geq 94$ mm• Multiple occupancy up to 1.2 m² total fire damper area• 2-plate mineral wool bulkhead (2 x 50 mm)• Distance to load-bearing structural elements ≥ 40 mm• Distance between casings ≥ 10 mm	<ul style="list-style-type: none">• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none">• Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection)• With or without mineral wool• Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate• $d \geq 100$ mm• 2-plate mineral wool bulkhead (combined penetration seal)• Distance to load-bearing structural elements ≥ 40 mm• Distance to fire dampers FK-EU/FK2-EU ≥ 50 mm• Distance to pipe openings ≥ 50 mm• Distance to cable openings ≥ 100 mm• Distance between casings ≥ 40 mm	<ul style="list-style-type: none">• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S



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	<ul style="list-style-type: none"> • Metal support structure (also steel support structure and with sheet steel inlay as compartment wall, safety partition wall or to provide radiation protection) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • d = 100 - 200 mm • Fire protection stone bulkhead system Hilti CFS-BL • Trim panels • Distance to cable penetrations and empty pipes ≥ 200 mm • Distance between fire damper and penetration seal edge ≥ 50 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 90 (v _e i↔o) S
 <p>Timber stud wall</p>	<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • d ≥ 130 mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 40 mm 	• in the wall	Mortar-based installation	EI 120 (v _e i↔o) S
	<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • d ≥ 130 mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 90 (v _e i↔o) S
	<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • d ≥ 110 mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 60 (v _e i↔o) S
	<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • d ≥ 105 mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 30 (v _e i↔o) S



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<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • Combined assembly up to 1.2 m^2 total fire damper area • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance to fire dampers FK-EU/FK2-EU $\geq 50 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • Multiple occupancy up to 1.2 m^2 total fire damper area • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 110 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	<ul style="list-style-type: none"> • in the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 105 \text{ mm}$ • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	<ul style="list-style-type: none"> • in the wall 	Dry mortarless installation	EI 30 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • Mineral wool insulation • Joint filler • Distance to load-bearing structural elements $\geq 200 \text{ mm}$ • Distance between casings $\geq 400 \text{ mm}$ 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • Mineral wool insulation • Fire batt • Distance to load-bearing structural elements $\geq 200 \text{ mm}$ • Distance between casings $\geq 400 \text{ mm}$ 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Fire batt	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 110 \text{ mm}$ • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Fire batt	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 105 \text{ mm}$ • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Fire batt	EI 30 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • Multiple occupancy up to 1.2 m^2 total fire damper area • 2-plate mineral wool bulkhead ($2 \times 50 \text{ mm}$) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Timber studs (also timber panel constructions and timber frames) • With or without mineral wool • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 130 \text{ mm}$ • 2-plate mineral wool bulkhead (combined penetration seal) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance to fire dampers FK-EU/FK2-EU $\geq 50 \text{ mm}$ • Distance to pipe openings $\geq 50 \text{ mm}$ • Distance to cable openings $\geq 100 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 40 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 110 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 30 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140$ mm • Combined assembly up to 1.2 m² total fire damper area • Distance to load-bearing structural elements ≥ 40 mm • Distance to fire dampers FK-EU/FK2-EU ≥ 50 mm • Distance between casings ≥ 40 mm 	• in the wall	Mortar-based installation	EI 90 (v _e i↔o) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140$ mm • Multiple occupancy up to 1.2 m² total fire damper area • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 90 (v _e i↔o) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140$ mm • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 120 (v _e i↔o) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140$ mm • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 90 (v _e i↔o) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 110$ mm • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 30 (v _e i↔o) S



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<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140$ mm • Mineral wool insulation • Joint filler • Distance to load-bearing structural elements ≥ 200 mm • Distance between casings ≥ 400 mm 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140$ mm • Mineral wool insulation • Fire batt • Distance to load-bearing structural elements ≥ 200 mm • Distance between casings ≥ 400 mm 	<ul style="list-style-type: none"> • remote from the wall 	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140$ mm • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 40 mm 	<ul style="list-style-type: none"> • in the wall 	Fire batt	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140$ mm • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	<ul style="list-style-type: none"> • in the wall 	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 110$ mm • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	<ul style="list-style-type: none"> • in the wall 	Fire batt	EI 30 ($v_e i \leftrightarrow o$) S

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	<ul style="list-style-type: none"> • Half-timbered construction • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • $d \geq 140 \text{ mm}$ • Multiple occupancy up to 1.2 m^2 total fire damper area • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
 Solid wood wall	<ul style="list-style-type: none"> • Solid wood wall / CLT wall • $d \geq 95 \text{ mm}$ (also with additional fire-rated plasterboard cladding) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Solid wood wall / CLT wall • $d \geq 95 \text{ mm}$ (also with additional fire-rated plasterboard cladding) • Installation kit TQ2 • Distance to load-bearing structural elements $\geq 55 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Solid wood wall / CLT wall • $d \geq 100 \text{ mm}$ (also with additional fire-rated plasterboard cladding) • Mineral wool insulation • Mortar-based installation • Distance to load-bearing structural elements $\geq 200 \text{ mm}$ • Distance between casings $\geq 400 \text{ mm}$ 	• remote from the wall	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Solid wood wall / CLT wall • $d \geq 100 \text{ mm}$ (also with additional fire-rated plasterboard cladding) • Mineral wool insulation • Fire batt • Distance to load-bearing structural elements $\geq 200 \text{ mm}$ • Distance between casings $\geq 400 \text{ mm}$ 	• remote from the wall	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Solid wood wall / CLT wall • $d \geq 95 \text{ mm}$ (also with additional fire-rated plasterboard cladding) • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 200 \text{ mm}$ 	• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S



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	<ul style="list-style-type: none"> • Solid wood wall / CLT wall • $d \geq 95$ mm (also with additional fire-rated plasterboard cladding) • 2-plate mineral wool bulkhead (combined penetration seal) • Distance to load-bearing structural elements ≥ 40 mm • Distance to fire dampers FK-EU/FK2-EU ≥ 50 mm • Distance to pipe openings ≥ 50 mm • Distance to cable openings ≥ 100 mm • Distance between casings ≥ 40 mm 	• in the wall	Fire batt	EI 90 ($v_e i \leftrightarrow o$) S
 <p>Shaft wall</p>	<ul style="list-style-type: none"> • Metal support structure (also steel support structure and facings) • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • Cladding on one side • $d \geq 90$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Metal support structure (also steel support structure and facings) • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • Cladding on one side (construction with adjusted cladding) • $d \geq 80$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Metal support structure (also steel support structure and facings) • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • Cladding on one side • $d \geq 80$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 60 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Metal support structure (also steel support structure and facings) • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • Cladding on one side • $d \geq 75$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the wall	Mortar-based installation	EI 30 ($v_e i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Metal support structure (also steel support structure and facings) • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • Cladding on one side • $d \geq 90$ mm • Combined assembly up to 1.2 m² total fire damper area • Distance to load-bearing structural elements ≥ 40 mm • Distance to fire dampers FK-EU/FK2-EU ≥ 50 mm • Distance between casings ≥ 40 mm 	• in the wall	Mortar-based installation	EI 90 (v _e i↔o) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and facings) • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • Cladding on one side • $d \geq 90$ mm • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 90 (v _e i↔o) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and facings) • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • Cladding on one side (construction with adjusted cladding) • $d \geq 80$ mm • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 90 (v _e i↔o) S
<ul style="list-style-type: none"> • Metal support structure (also steel support structure and facings) • Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate • Cladding on one side • $d \geq 80$ mm • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 60 (v _e i↔o) S



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<ul style="list-style-type: none"> Without metal support structure Gypsum bonded or cement bonded panel materials, fibre-reinforced gypsum boards or firestop boards of calcium silicate Cladding on one side $d \geq 40 \text{ mm}$ Installation kit WA2 Distance to load-bearing structural elements $\geq 75 \text{ mm}$ Distance between casings $\geq 200 \text{ mm}$ 	<ul style="list-style-type: none"> on the face of the wall 	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> Metal studs with gypsum plasterboard Asymmetric cladding $\geq 3 \times 15 \text{ mm}$ Optionally with filling strips or trimmers $d \geq 105 \text{ mm}$ 	<ul style="list-style-type: none"> in the wall 	Mortar-based installation	EI 120 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> Metal studs with gypsum plasterboard Asymmetric cladding $\geq 2 \times 15 \text{ mm}$ Optionally with filling strips or trimmers $d \geq 105 \text{ mm}$ With reinforcing board 	<ul style="list-style-type: none"> in the wall 	Mortar-based installation	EI 90 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> Metal studs with gypsum plasterboard Asymmetric cladding Optionally with filling strips or trimmers $d \geq 105 \text{ mm}$ $\geq 2 \times 12.5 \text{ mm}$ With reinforcing board 	<ul style="list-style-type: none"> in the wall 	Mortar-based installation	EI 60 ($v_e i \leftrightarrow o$) S
<ul style="list-style-type: none"> Metal studs with gypsum plasterboard Asymmetric cladding $\geq 3 \times 15 \text{ mm}$ Optionally with filling strips or trimmers $d \geq 105 \text{ mm}$ With reinforcing board Installation kit TQ2 	<ul style="list-style-type: none"> in the wall 	Dry mortarless installation	EI 120 ($v_e i \leftrightarrow o$) S

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	<ul style="list-style-type: none"> • Metal studs with gypsum plasterboard • Asymmetric cladding • $\geq 2 \times 15$ mm • Optionally with filling strips or trimmers • $d \geq 105$ mm • With reinforcing board • Installation kit TQ2 	• in the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • Metal studs with gypsum plasterboard • Asymmetric cladding • Optionally with filling strips or trimmers • $d \geq 105$ mm • $\geq 2 \times 12.5$ mm • With reinforcing board • Installation kit TQ2 	• in the wall	Dry mortarless installation	EI 60 ($v_e i \leftrightarrow o$) S
 Sandwich panel	<ul style="list-style-type: none"> • $d = 100 - 200$ mm (sheet thickness on both sides ≥ 0.5 mm sheet steel, mineral wool filling) • Fire protection stone bulkhead system Hilti CFS-BL • Trim panels • Distance to cable penetrations and empty pipes ≥ 200 mm • Distance between fire damper and penetration seal edge ≥ 50 mm • Distance between casings ≥ 200 mm 	• in the wall	Dry mortarless installation	EI 90 ($v_e i \leftrightarrow o$) S
 Solid ceiling slab	<ul style="list-style-type: none"> • $d \geq 100$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 45 mm 	• in the ceiling	Mortar-based installation	EI 120 ($h_o i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 100$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the ceiling	Mortar-based installation	EI 90 ($h_o i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 150$ mm • Combined assembly up to 1.2 m² total fire damper area • Distance to load-bearing structural elements ≥ 40 mm • Distance to fire dampers FK-EU/FK2-EU ≥ 50 mm • Distance between casings ≥ 45 mm 	• in the ceiling	Mortar-based installation	EI 90 ($h_o i \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 150$ mm • Multiple occupancy up to 1.2 m² total fire damper area • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 10 mm 	• in the ceiling	Mortar-based installation	EI 90 ($h_o i \leftrightarrow o$) S



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<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Concrete base $\leq 750 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 45 \text{ mm}$ 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 120 ($h_o \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Concrete base $\leq 750 \text{ mm}$ • Combined assembly up to 1.2 m^2 total fire damper area • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance to fire dampers FK-EU/FK2-EU $\geq 50 \text{ mm}$ • Distance between casings $\geq 45 \text{ mm}$ 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 100 \text{ mm}$ • Concrete base $\leq 750 \text{ mm}$ • Multiple occupancy up to 1.2 m^2 total fire damper area • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 10 \text{ mm}$ 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
<ul style="list-style-type: none"> • $d \geq 150 \text{ mm}$ • Hollow stone ceilings • Hollow chamber ceilings • Ribbed Ceilings • Composite ceilings and comparable ceiling constructions • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 45 \text{ mm}$ 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
<ul style="list-style-type: none"> • Combined with wooden beam ceilings (glued laminated timber also) • Partial concrete ceiling, $d \geq 150 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 45 \text{ mm}$ 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
<ul style="list-style-type: none"> • Combined with solid wood ceilings • Partial concrete ceiling, $d \geq 150 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 45 \text{ mm}$ 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
<ul style="list-style-type: none"> • Combined with suspended ceiling systems (Cadolto system) • Partial concrete ceiling, $d \geq 150 \text{ mm}$ • Distance to load-bearing structural elements $\geq 40 \text{ mm}$ • Distance between casings $\geq 45 \text{ mm}$ 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 120 ($h_o \leftrightarrow o$) S



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<ul style="list-style-type: none"> • Combined with lightweight ceilings (ADK system) • Partial concrete ceiling, $d \geq 125$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 45 mm 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 90 (h_o i↔o) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • Installation block ER • Distance from installation block to load-bearing structural elements ≥ 75 mm • Distance between installation blocks ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Dry mortarless installation	EI 90 (h_o i↔o) S
<ul style="list-style-type: none"> • $d \geq 150$ mm • Installation kit WA2 • Distance to load-bearing structural elements ≥ 75 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • on the ceiling 	Dry mortarless installation	EI 90 (h_o i↔o) S
<ul style="list-style-type: none"> • $d \geq 125$ mm • Below the ceiling, with horizontal duct • Installation kit WE2 • Clad on 4 sides • Distance to load-bearing structural elements ≥ 130 mm • Distance between casings ≥ 260 mm 	<ul style="list-style-type: none"> • remote from the ceiling 	Dry mortarless installation	EI 90 (h_o i↔o) S
<ul style="list-style-type: none"> • $d \geq 125$ mm • Above the ceiling, with horizontal duct • Installation kit WE2 • Clad on 4 sides • Distance to load-bearing structural elements ≥ 130 mm • Distance between casings ≥ 260 mm 	<ul style="list-style-type: none"> • remote from the ceiling 	Dry mortarless installation	EI 90 (h_o i↔o) S
<ul style="list-style-type: none"> • Fireshield • $d \geq 150$ mm • Distance to load-bearing structural elements ≥ 100 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 90 (h_o i↔o) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Fire batt	EI 120 (h_o i↔o) S
<ul style="list-style-type: none"> • $d \geq 100$ mm • 2-plate mineral wool bulkhead (2 x 50 mm) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Fire batt	EI 90 (h_o i↔o) S

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 <p>Solid wood ceiling</p>	<ul style="list-style-type: none"> • $d \geq 140$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	• in the ceiling	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 112.5$ mm • Additional cladding • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	• in the ceiling	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 140$ mm • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the ceiling	Dry mortarless installation	EI 90 ($h_o \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 112.5$ mm • Additional cladding • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the ceiling	Dry mortarless installation	EI 90 ($h_o \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 140$ mm • Installation kit TS2 (twin installation) • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings $= 68$ mm 	• in the ceiling	Dry mortarless installation	EI 120 ($h_o \leftrightarrow o$) S
 <p>Wooden panel element</p>	<ul style="list-style-type: none"> • $d \geq 140$ mm • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	• in the ceiling	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 140$ mm • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	• in the ceiling	Dry mortarless installation	EI 90 ($h_o \leftrightarrow o$) S
 <p>Wooden beam ceiling</p>	<ul style="list-style-type: none"> • $d \geq 167.5$ mm • Wooden beam or gluelam • Additional cladding • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	• in the ceiling	Mortar-based installation	EI 90 ($h_o \leftrightarrow o$) S
	<ul style="list-style-type: none"> • $d \geq 155$ mm • Wooden beam or gluelam • Additional cladding • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	• in the ceiling	Mortar-based installation	EI 60 ($h_o \leftrightarrow o$) S

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<ul style="list-style-type: none"> • $d \geq 142.5$ mm • Wooden beam or gluelam • Additional cladding • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 30 (h_o i \leftrightarrow o) S
<ul style="list-style-type: none"> • $d \geq 167.5$ mm • Wooden beam or gluelam • Additional cladding • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Dry mortarless installation	EI 90 (h_o i \leftrightarrow o) S
<ul style="list-style-type: none"> • $d \geq 155$ mm • Wooden beam or gluelam • Additional cladding • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Dry mortarless installation	EI 60 (h_o i \leftrightarrow o) S
<ul style="list-style-type: none"> • $d \geq 142.5$ mm • Wooden beam or gluelam • Additional cladding • Installation kit TQ2 • Distance to load-bearing structural elements ≥ 55 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Dry mortarless installation	EI 30 (h_o i \leftrightarrow o) S
<ul style="list-style-type: none"> • Historical wooden beam ceilings • Construction according to local conditions with 30 minutes fire resistance • Distance to load-bearing structural elements ≥ 40 mm • Distance between casings ≥ 200 mm 	<ul style="list-style-type: none"> • in the ceiling 	Mortar-based installation	EI 30 (h_o i \leftrightarrow o) S

Table 2

Essential characteristics	Technical specification	Performance
Nominal activation conditions/sensitivity Sensing element load-bearing capacity Sensing element response temperature 72 °C, 95 °C	ISO 10294-4:2001	Approved
Response delay/response time Closure time	EN 1366-2:2015	Approved

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Durability of response delay Sensing element response to temperature and load-bearing capacity	ISO 10294-4:2001	Approved
Operational reliability Open and closing cycle, 50 cycles	EN 15650:2010 EN 1366-2:2015	Approved
Durability of operational reliability Testing of the open and closing cycle, 10,000 cycles B(L)F 24-T(N)-(ST) TR, B(L)F230-T-(ST)-TR BF24TL-T-(ST)-TR BFL 24-T-(ST) TR, BFL 230-T-(ST) TR BFN 24-T-(ST) TR, BFN 230-T-(ST) TR ExMax-15-BF-TR, RedMax-15-BF-TR GGA126.1E/T../GGA326.1E/T... GNA126.1E/T../GNA326.1E/T... GRA126.1E/T../GRA326.1E/T... SFR 1.90 T (SLC) SFR 2.90 T 340TA-230-05-S2 TR 340TA-024-05-S2/ST01 TR	EN 15650:2010	Approved
Protection against corrosion	EN 15650:2010	Approved
Damper blade leakage	EN 1751:2014	Class 3
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 above-named manufacturer.

Signed for and on behalf of the manufacturer by

Neukirchen-Vluyn, 01.07.2024

