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Member of EOTA

European Technical Approval ETA-13/0887

UL Project No. 12CA10630 [Original version in English language]

Trade name EZ-Path® Fire-Rated Pathway (Series 33 and Series 44+)

Holders of approval Specified Technologies Inc.

210 Evans Way Somerville NJ 08876 USA

Generic type and use of construction product

Cable Penetration Seals

Validity: from 2

to

2103-06-21 2018-06-20

Manufacturing plant(s)

C/003, C/004

This Approval contains

26 pages including 3 Annexes



European Organisation for Technical Approvals

UL International (UK) Ltd



European technical approval ETA-13/0887, with validity from 21.06.2013 to 20.06.2018

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I. LEGAL BASES AND GENERAL CONDITIONS

- 1 This European Technical Approval is issued by UL International (UK) Ltd in accordance with:
 - The Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹ modified by Council Directive 93/68/EEC² and Regulation (EC) N° 1882/2003 of the European Parliament and of the Council³
 - UK implementation of CPD Statutory Instruments 1991, No 1620 Building and Buildings The Construction Products Regulations 1991- made 15 July 1991, laid before Parliament 22 July 1991, coming into force 27 December 1991, and amended by The Construction Products (Amendment) Regulations 1994 (Statutory Instruments 1994, No 3051)
 - · Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex to Commission Decision 94/23/EC⁴
 - Guideline for European Technical Approval of Fire Stopping and Fire Sealing Products: ETAG 026 Part 1: "General" and Part 2: "Penetration Seals"
- 2 UL International (UK) Ltd is authorised to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant(s). Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for intended use remains with the holders of the European Technical Approval.
- 3 This European Technical Approval is not to be transferred to other manufacturers or agents of manufacturers other than those indicated on page 1, or manufacturing plants other than those indicated on page 1 of this European Technical Approval.
- 4 This European Technical Approval may be withdrawn by UL International (UK) Ltd pursuant to Article 5.1 of the Council Directive 89/106/EEC.
- 5 Reproduction of this European technical approval including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of UL International (UK) Ltd. In this case partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European technical approval.
- The European technical approval is issued by the approval body in its official language of English. These versions should correspond fully to the version used by EOTA for circulation. Translations in other languages have to be designated as such.

¹ Official Journal of the European Communities N° L40, 11.2.1989, p. 12

 $^{^2}$ Official Journal of the European Communities N° L 220, 30.08.1993, p. 1 $\,$

 $^{^3}$ Official Journal of the European Union N° L 284, 31.10.2003, p. 1 $\,$

⁴ Official Journal of the European Communities N° L17, 20.1.1994, p. 34

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II. SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of product(s) and intended use

1.1 General

- 1) The EZ-Path Fire-Rated Pathway is a cable management firestop device (cable box), designed in two sizes (Series 33 and Series 44+) and can be installed as a single pathway or as multiple ganged pathways. The EZ-Path Fire-Rated Pathway consist of an enclosed powder-coated galvanized steel box assembly incorporating an interlocking hook and eye arrangement with a graphite based intumescent compound adhered to each narrow internal wall and 2No. graphite based intumescent compound strips clipped to each wider internal wall which arch across the centre of the box, held using an elastic band to form a cable throat.
- 2) EZ-Path Fire-Rated Pathway internally incorporates urethane base, graphite impregnated intumescent foam, installed inside the EZ-Path Fire-Rated Pathway (Series 33 and 44+), which expands upon heating to close the pathway around services to prevent the passage of fire. For EZ-Path Series 33, this intumescent foam is also used as a wall plate gasket. It expands upon heating to close any gap between the pathway and periphery of the opening. The expanding action is achieved by expandable graphite (CAS no. 7782-42-5). Additional main components are a plasticizer (CAS no. 003648-20-2) and a resin (CAS no. 69102-90-5).
- 3) EZ-Path Fire-Rated Pathway externally incorporates an intumescent cellulose based sheet containing cellulose paper fiber (CAS no. 9004-34-6), wrapped around the exposed surfaces of the EZ-Path Fire-Rated Pathway (Series 33 and 44+). The intumescent paper expands to create an insulating char to control temperature increase. Expanding action is ensured by expandable graphite (CAS no. 7782-42-5). When cable tray cover is required (see Annex 3), intumescent paper shall be installed inside the cable tray.
- 4) EZ-Path Fire-Rated Pathway incorporates an intumescent wrap strip which is a urethane base, graphite impregnated strip, used as a wall and floor plate gasket for EZ-Path Fire-Rated Pathway Series 44+. It expands upon heating to close any gap between the pathway and periphery of the opening. The expanding action is achieved by expandable graphite (CAS no. 7782-42-5). Additional main components are Soybean Oil (CAS no. 8001-22-7) and a resin (CAS no. 69102-90-5).
- 5) The intumescent components incorporated within the EZ-Path Fire-Rated Pathway contain no carcinogenic or mutagenic substances, no flame or fire retardants and no anti-microbiological agents.

1.2 Additional components

EZ-Path® Fire-Rated Pathway can be installed as a single pathway or as multiple ganged pathways utilizing the appropriate wall or floor plate kits.

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1.3 Intended use

The intended use of EZ-Path Fire-Rated Pathway is to reinstate the fire resistance performance of flexible wall constructions, rigid walls and rigid floors where they are penetrated by services or where services have not been installed yet. Services can be retrofitted or removed after installation.

1.4 **Specified Services**

EZ-Path Fire-rated Pathway may be used to provide a penetration seal with the services specified in Annex Annex 3.

1.5 **Supporting Wall and Floor Constructions**

EZ-Path Fire-Rated Pathways may be installed into flexible walls and rigid walls and floors, as specified in Annex 1, following the manufacturer's installation instructions specified in Annex 2.

1.6 Working Life

The provisions made in this European technical approval are based on an assumed working life of EZ-Path Fire-Rated Pathway of 10 years, provided that the conditions laid down in sections 4.2/5.1/5.2 for the packaging / transport / storage / installation / use / repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

1.7 <u>Use Category</u>

The use category of EZ-Path Fire-Rated Pathway is Type Y₂ and includes categories Z₁ & Z₂.

Type Y_2 : intended for use at temperatures below 0°C, but with no exposure to rain or UV.

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2 Characteristics of product(s) and methods of verification

The identification tests and the assessment of the fitness for use according to the Essential Requirements were carried out in compliance with the "ETA Guidance no. 026-Part 2" concerning Penetration Seals – Progress File August 2011.

ETAG Clause No.	ETA Clause No.	Characteristic	Assessment of characteristic					
	Mechanical resistance and stability							
	None Not relevant							
		Safety in case of fire						
2.4.1	2.1	Reaction to fire	Class E					
2.4.2	2.2	Resistance to fire	Annex 3					
		Hygiene, health and environmer	nt					
2.4.3	2.3	Air permeability (material property)	No performance determined					
2.4.4	2.4	Water permeability (material property)	No performance determined					
2.4.5	2.5	Release of dangerous substances	Declaration of manufacturer					
		Safety in use						
2.4.6	2.6	Mechanical resistance and stability	No performance determined					
2.4.7	2.7	Resistance to impact/movement	No performance determined					
2.4.8	2.8	Adhesion	No performance determined					
		Protection against noise						
2.4.9	2.9	Airborne sound insulation	No performance determined					
		Energy economy and heat retenti	on					
2.4.10	2.10	Thermal properties	No performance determined					
2.4.11	2.4.11 2.11 Water vapour permeability		No performance determined					
		General aspects relating to fitness for	or use					
2.4.12 2.12 Durability and serviceability Y ₂								

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2.1 Reaction to fire

The overall reaction to fire classification for EZ-Path Fire-rated Pathway is Class 'E' in accordance with EN 13501-1. The metal housing is classified 'A1'.

2.2 Resistance to fire

EZ-Path Fire-rated Pathways have been tested in accordance with EN 1366-3:2009, installed within apertures in flexible walls (drywalls), an aerated concrete wall and an aerated concrete floor construction.

Based upon these test results and the field of direct application specified within EN 1366-3:2009, EZ-Path Fire-rated Pathways have been classified in accordance with EN 13501-2, as shown in Annex 3.

For details of suitable wall and floor constructions see Annex 1.

The total cross section of the cables must not be more than 60% of the total seal (opening) size (space between cables not included in 60%).

2.3 Air permeability

No performance determined

2.4 Water permeability

No performance determined

2.5 <u>Dangerous substances</u>

Specified Technologies Inc. submitted a written declaration that EZ-Path Fire-rated Pathway does not contain substances which have to be classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No 1272/2008 and listed in the "Indicative list on dangerous substances" of the EGDS - taking into account the installation conditions of the construction product and the release scenarios resulting from there.

In addition to the specific clauses relating to dangerous substances contained in this European technical approval, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Directive, these requirements need also to be complied with, when and where they apply.

2.6 Mechanical resistance and stability

No performance determined

2.7 Resistance to impact/movement

No performance determined

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2.8 Adhesion

No performance determined.

2.9 Airborne sound insulation

No performance determined

2.10 Thermal properties

No performance determined

2.11 Water vapour permeability

No performance determined

2.12 **Durability and serviceability**

EZ-Path Fire-rated Pathway has been assessed for the Y₂ use category specified in EOTA 026-2.

Products that meet the requirements for type Y_2 also meet the requirements for type Z_1 and Z_2 .

Type Y₂: intended for use at temperatures below 0°C, but with no exposure to rain or UV.

Type Z_1 : intended for use in internal conditions with humidity equal to or higher than 85 % RH excluding temperatures below 0°C, without exposure to rain or UV

Type Z_2 : intended for uses in internal conditions with humidity lower than 85 % RH excluding temperatures below 0°C, without exposure to rain or UV.

3 Evaluation of Conformity and CE marking

3.1 Attestation of Conformity system

According to the decision 1999/454/EC of the European Commission the system 1 of attestation of conformity applies.

This system of attestation of conformity is defined as follows:

System 1: Certification of the conformity of the product by a notified certification body on the basis of:

- (a) Tasks for the manufacturer
 - (1) factory production control;
 - (2) further testing of samples taken at the factory by the manufacturer in accordance with a prescribed test plan;

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- (b) Tasks for the notified body
 - (3) initial type-testing of the product;
 - (4) initial inspection of factory and of factory production control;
 - (5) continuous surveillance, assessment and approval of factory production control.

3.2 Responsibilities

3.2.1 Tasks of the manufacturer:

3.2.1.1 Factory production control

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall insure that the product is in conformity with this European technical approval.

The manufacturer shall draw up and keep up-to-date documents defining the factory production control that applies. The documentation to be carried out by the manufacturer and the applicable procedures shall be appropriate to the product and manufacturing process. The factory production control shall ensure the conformity of the product to an appropriate level. This involves:

- a) the preparation of documented procedures and instructions relating to factory production control operations.
- b) the effective implementation of these procedures and instructions.
- c) the recording of these procedures and their results.
- d) the use of these results to correct any deviations, repair the effects of such deviations, treat any resulting instances of non-conformity and, if necessary, revise the factory production control to rectify the cause of non-conformity.
- e) a procedure to ensure that both the approval Body and the Notified (Certification) Bodies are advised before any significant change to the product, its components or manufacturing process, is made.
- f) a procedure to ensure that personnel involved in the production processes and the quality control procedures are qualified and adequately trained to carry out their required tasks.
- g) that all testing and measuring equipment is maintained and up to date calibration records are documented.
- h) maintenance of records to ensure every batch produced is clearly labelled with the batch number, which allows traceability to its production to be identified.

The manufacturer may only use components stated in the technical documentation of this European technical approval.

For the components not manufactured by the ETA-holders, the ETA-holders shall make sure that factory production control carried out by the other manufacturers gives the guaranty of the components compliance with the European technical approval.





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The factory production control shall be in accordance with the Control Plan of 15th April 2013 relating to the European technical approval ETA 13/0887 issued on 21/06/2013 which is part of the technical documentation of this European technical approval. The "Control Plan" is laid down in the context of the factory production control system operated by the manufacturer and deposited at UL International (UK) Ltd.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

3.2.1.2 Other tasks of the manufacturer

Additional information

The manufacturer shall provide a technical data sheet and an installation instruction with the following minimum information:

- (a) Technical data sheet:
 - Field of application:
 - Building elements for which the penetration seal is suitable, type and properties of the building elements like minimum thickness, density, and - in case of lightweight constructions – the construction requirements.
 - Limits in size, minimum thickness etc. of the penetration seal
 - Construction of the penetration seal including the necessary components and additional products (e.g. backfilling material) with clear indication whether they are generic or specific.
 - Services which the penetration seal is suitable, type and properties of the services like material, diameter, thickness etc. in case of pipes including insulation materials; necessary/allowed supports/fixings (e.g. cable trays)
- (b) Installation instruction:
 - Steps to be followed
 - Procedure in case of retrofitting
 - Stipulations on maintenance, repair and replacement

The manufacturer shall, on the basis of a contract, involve a body which is approved for the tasks referred to in section 3.1 in the field of penetration seals in order to undertake the actions laid down in section 3.3. For this purpose, the "control plan" referred to in sections 3.2.1.1 and 3.2.2 shall be handed over by the manufacturer to the approved body or bodies involved.

The manufacturer shall make a declaration of conformity, stating that the construction product is in conformity with the provisions of the European technical approval ETA 13/0887 issued on 21/06/2013.

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3.2.2 Tasks of the Notified Bodies:

3.2.2.1 Initial type-testing

Approval tests have been conducted on behalf of the Notified Body in accordance with the requirements of ETAG 026, Parts 1 and 2, as relevant.

The results of the tests performed as part of the assessment for the European technical approval may be used unless there are changes in the production line or plant. In such cases, the necessary initial type testing has to be agreed between UL International (UK) Ltd and the Notified Bodies involved.

3.2.2.2 Initial inspection of factory and of factory production control

The Notified Body (Bodies) shall ascertain that, in accordance with the control plan, the factory (in particular the employees and the equipment) and the factory production control are suitable to ensure continuous and orderly manufacturing of the components according to the specifications mentioned in clause 2 of this ETA.

3.2.2.3 Continuous surveillance, assessment and approval of factory production control

The Notified Body (Bodies) shall visit the factory at least twice a year for surveillance of this manufacturer having a FPC system complying with a quality management system covering the manufacturing of the approval product components.

The Notified Body (Bodies) shall retain the essential points of its (their) actions referred to above and state the results obtained and conclusions drawn in a written report.

The Notified Body involved by the manufacturer shall issue an EC certificate of conformity of the product stating the conformity with the provisions of this European technical approval.

In cases where the provisions of the ETA and its control plan are no longer fulfilled the certification body shall withdraw the certificate of conformity and inform UL International (UK) Ltd without delay.

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3.3 <u>CE marking</u>

The CE marking shall consist of the letters 'CE' in the form laid down in Council Directive 93/68/EEC, followed by the identification number of the notified certification body.

The CE marking shall be affixed on a visible part of the product, a label attached to the product, the packaging or on accompanying commercial documents. The CE marking shall be accompanied by the following information:

- the name and address of the producer or the authorised representative established in the EEA,
- the last two digits of the year in which the CE marking was affixed,
- the number of the EC certificate of conformity for the product,
- the number of the European Technical Approval,
- number of the ETAG used
- designation of the product use category
- Other relevant characteristics

4 Assumptions under which the fitness of the product(s) for the intended use was favourably assessed.

4.1 Manufacturing

The European technical approval is issued for EZ-Path Fire-rated Pathway on the basis of agreed data/information, deposited with UL International (UK) Ltd, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to UL International (UK) Ltd before the changes are introduced. UL International (UK) Ltd will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

4.2 <u>Installation</u>

It is assumed that the installation of EZ-Path Fire-rated Pathway shall be conducted in accordance with the manufacturer's technical literature.

Installation guidance is detailed in Annex 2 of this ETA.

5 Recommendations for the manufacturer

5.1 Recommendations on packaging, transport and storage.

In the documentation accompanying the product and $\!\!/$ or on the packaging the manufacturer shall provide information as to transport and storage.

The following minimum information shall be included:

Storage – The product shall be stored in a dry environment, protected from exposure to moisture, within a temperature range of -5°C to 50°C.



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5.2 Recommendations on use, maintenance and repair

The system EZ-Path Fire-rated Pathway should be installed and used as described earlier in this document and in Annex 2.

System EZ-Path Fire-rated Pathway seals which are damaged after installation, should be removed and replaced with undamaged seals.

In the area covered by the ETA when the set up recommendation have been followed there is no maintenance protocol to be followed. The product does not need any maintenance in the life time indicated in the ETA.

6 Signatories

Report by:

C. Johnson

Staff Engineer Product Safety

For and on behalf of UL International (UK) Ltd.

Reviewed by:

C. W. Miles

Business Manager – Europe & Latin America Built Environment Sector



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ANNEX 1 – Supporting Constructions

EZ-Path Fire Rated Pathway (Series 33 and Series 44+) may be used to provide a penetration seal in the following specific elements of construction:

Flexible walls:	 shall comprise timber or steel studs lined on both faces with boards of an overall thickness of minimum 30 mm, two layers. For timber stud walls there must be a minimum distance of 100 mm of the seal to any stud and the cavity between stud and seal must be closed and minimum 100 mm insulation of Class A1 or A2 (in accordance with EN 13501-1) in the cavity between stud and seal. thickness > 122 mm 			
Rigid walls:	 concrete, aerated concrete, reinforced concrete or masonry density > 650 kg/m3. thickness > 122 mm (see Annex 3 Resistance to fire classification) 			
Rigid floors:	 concrete, aerated concrete or reinforced concrete density > 650 kg/m3. thickness > 150 mm 			

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<u>ANNEX 2 – Manufacturer installation instructions</u>

2.1 Abbreviations

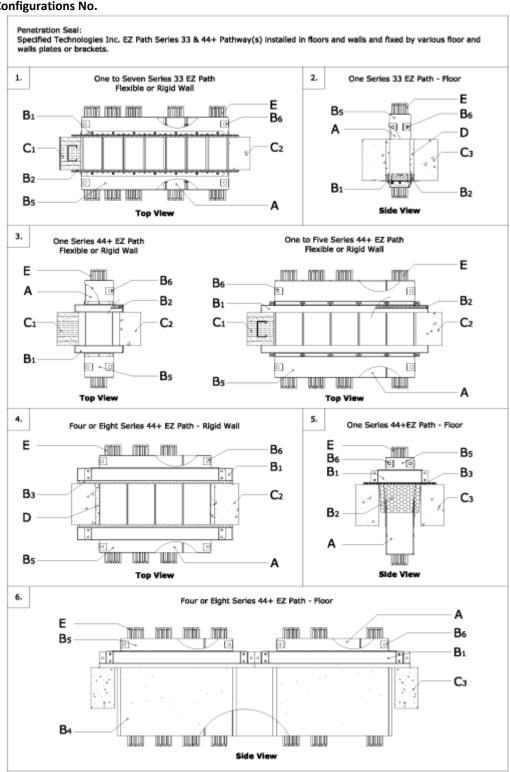
Α	EZ-Path® Fire Rated Pathway (Series 33 or Series 44+)
B1	Steel plate / steel grid
B2	Intumescent gasket
В3	Fiberglass gasket
B4	Ceramic fibre blanket
B5	Intumescent paper
B6	Steel clip
C1	Flexible wall
C2	Rigid wall
C3	Rigid floor
D	Regular construction mortar
E	Penetrating services: All sheathed cable types currently and commonly used in building practice in Europe (e.g. power, control, signal, telecommunication, data, optical fibre cables

2.2 Plate and grid kits

	Item A		Item B		
Configuration No.	Penetration Seal: EZ-Path® Penetration seal		Plate or grid kits		
NO.	Fire Rated Pathway	configuration	Wall	Floor	
1 & 2	Series 33	Single pathway	EZP133WT / EZP133CWT	EZP133KT	
1	Series 33	From two to seven gang pathways	EZP233WT / EZP333WT / EZP433WT / EZP733WT		
3 & 5	Series 44+	Single pathway	EZP144WT	EZG144T	
3	Series 44+	From one to five gang pathways	EZP544WT		
4 & 6	Series 44+	Four or eight gang pathways	EZG444WT / EZG844WT	EZG444T / EZG844T	

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2.3 Configurations No.



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2.4 Opening sizes

For single device, cable penetration seal can be installed in round or square openings, whose dimensions complies with the fire rated pathway to be installed (see below). For multi devices, cable penetration seals can be installed in rectangular openings (see below)

	Wall						
	Item A		Item B				
Configuration No.	Penetration Seal / Pathway	Penetration seal configuration	Plate or Grid Kit	Dimension of opening			
		One pathway	EZP133WT	81 x 81 mm			
		One pathway	EZP133CWT	Ø 102 mm			
1	Series 33	Two pathways	EZP233WT	155 x 81 mm			
1		Three pathways	EZP333WT	230 x 81 mm			
		Four pathways	EZP433WT	305 x 81 mm			
		Seven pathways	EZP733WT	540 x 81 mm			
	Series 44+	One pathway	EZP144WT	Ø 152 mm			
		One pathway		110 x 120 mm			
3		Two pathways		206 x 120 mm			
3		Three pathways	EZP544WT	309 x 120 mm			
		Four pathways		412 x 120 mm			
		Five pathways		515 x 120 mm			
4	Series 44+	Four pathways	EZG444WT	415 x 120 mm			
4	Series 44+	Eight pathways	EZG844WT	415 x 275 mm			

Floor							
	Item A		Item B				
Configuration No.	Penetration Seal / Pathway	Penetration seal configuration	Plate or Grid Kit	Dimension of opening			
2	Series 33 One pathway		EZP133KT	Ø 102 mm			
5	Series 44+	One pathway	EZG144T	Ø 152 mm			
6	Carias 44.	Four pathways	EZG444T	445 x 155 mm			
•	Series 44+	Eight pathways	EZG844T	1010 x 155 mm			

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2.5 Systems installation instructions

• EZ-Path Fire Rated Pathways may be blank (empty) to 100% visually full from all sheathed cable types currently and commonly used in building practice in Europe (e.g. power, control, signal, telecommunication, data, and optical fiber cables).

Step 1:

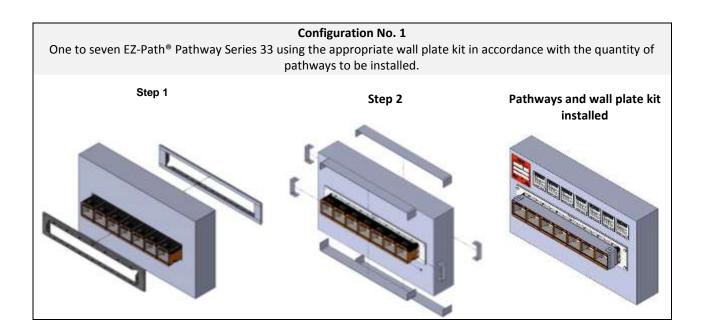
- EZ-Path® Fire Rated Pathways (Series 33 and Series 44+) are installed in walls and floors secured by various plates or brackets. Refer to installation instructions for additional information regarding the selection of appropriate kits.
- When required, plate or grid shall be secured to wall or floor using the appropriate type of screws.
- At the option to the installer, pathways may be grounded using ground screws delivered in plate or grid kits.

Step2

- After installation of EZ-Path Fire Rated Pathways into wall or floor assembly, intumescent paper to be wrapped
 around EZ-Path Fire-Rated Pathways and maintained in position using steel clips supplied together within plate
 and grid kits. Intumescent paper sheet to be installed on both sides of wall or top side of floor.
- For configuration 2 (EZP133KT) and configuration 4 (EZG444WT and EZG844WT) annular space into opening to be filled with regular construction mortar.

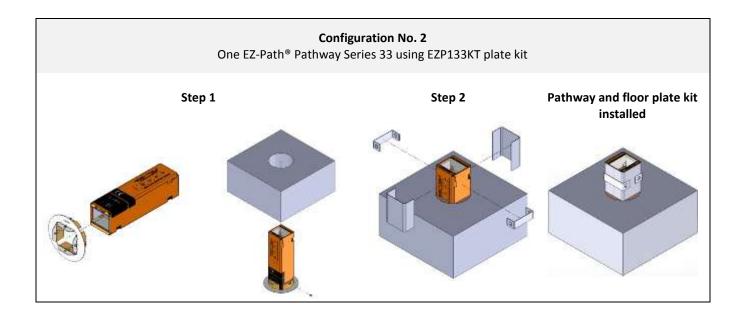
Step 3 (optional, see Annex 3 Resistance to Fire Classification for more details)

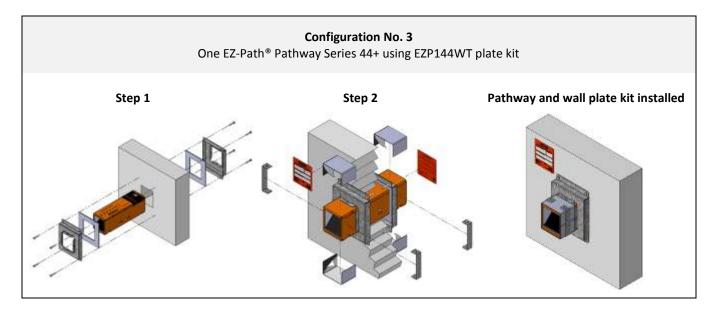
• A cable tray cover with an intumescent paper sheet inside the cable tray may have to be installed flush with edge of EZ-Path Fire-Rated Pathways on both sides of wall or top side of floor to reach the required resistance to fire classification (see Annex 3). A min 300mm long cable tray cover on both sides of wall or a min 400mm long cable tray cover on top side of floor may have to be installed. Intumescent paper sheet is supplied within plate and grid kits.





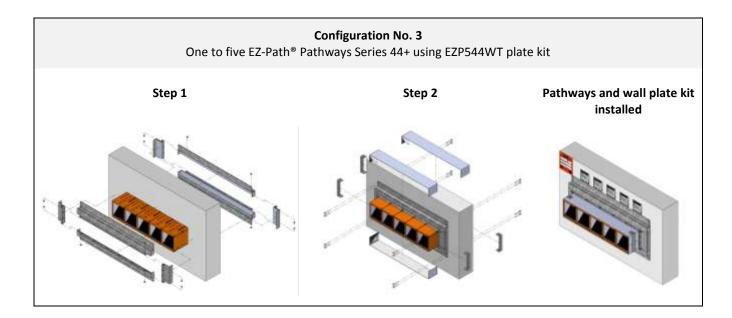
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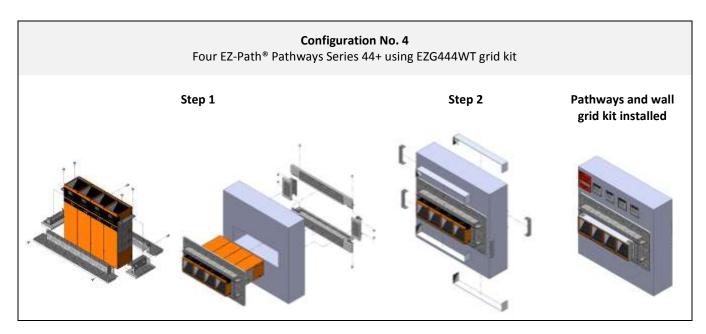




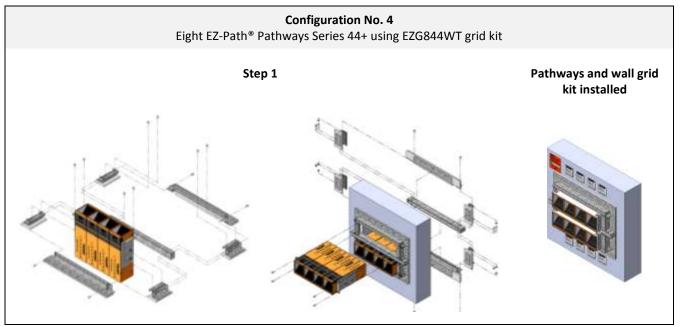


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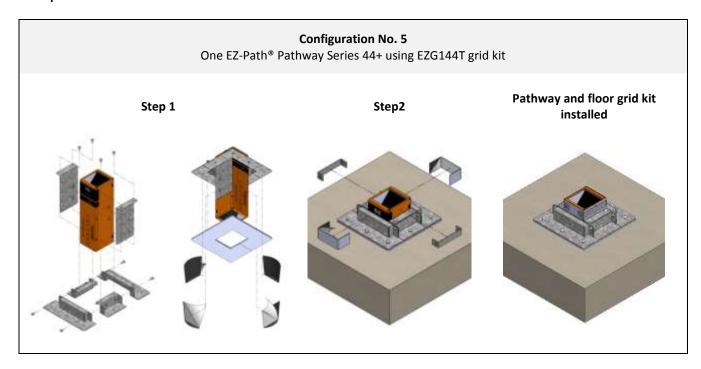




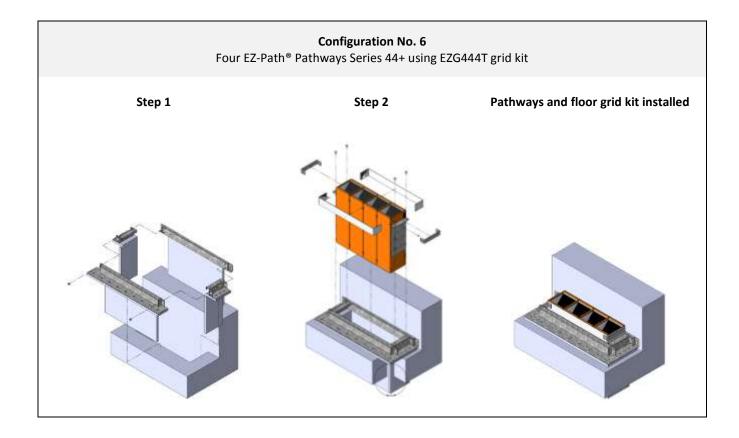
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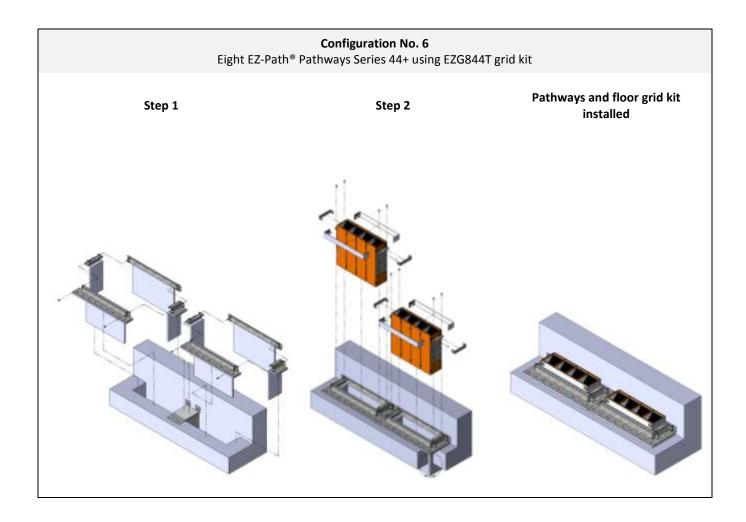
*Step 2 not shown



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<u>ANNEX 3 – Resistance to Fire Classification</u>

	Min 122 mm thick flexible or rigid wall						
	Item A		Item B	Item E			
Configuration No.	Penetration Seal / Pathway	Penetration seal configuration	Plate or Grid Kit	Penetrating Service / cables	Resistance to Fire Classification		
1	Series 33	From one to seven gang pathways	EZP133WT EZP133CWT EZP233WT EZP333WT EZP433WT EZP433WT	Maximum Ø21 mm electrical or telecommunication cables	EI 120		
	33.163.33			Blank (no services)			
				Maximum Ø50 mm electrical cables	EI 60 1)		
3	Series 44+ Single pathway EZP144WT	Single publication	EZP144WT	Maximum Ø21 mm electrical or telecommunication cables	EI 120		
3		Siligle patriway		Blank (no services)			
						Maximum Ø80 mm electrical cables	EI 120 ²⁾
3	Series 44+ From one to five gang pathways		EZP544WT	Maximum Ø21 mm telecommunication cables	- EI 120 ²⁾		
-		LZI J77 VV I	Blank (no services) Maximum Ø80 mm electrical cables	LI 120			

See installation instruction from manufacturer for more details:

1) Requires intumescent paper to be wrapped around cable last

Requires intumescent paper to be wrapped around cable larger than \emptyset 21 mm

Requires cable tray in association with cable tray cover and intumescent paper sheet to be installed on both sides of wall

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	Min 150 mm thick rigid wall						
	Item A		Item B	Item E			
Configuration No.	Penetration Seal / Pathway	Penetration seal configuration	Plate or Grid Kit	Penetrating Service / cables	Resistance to Fire Classification		
1	Series 33	From one to seven gang pathways	EZP133WT EZP133CWT EZP233WT EZP333WT EZP433WT EZP433WT	Maximum Ø21 mm electrical or telecommunication cables	EI 120		
				Blank (no services)			
				Maximum Ø50 mm electrical cables	EI 60		
3	Series 44+	Series 44+ From one to five gang pathways	EZP144WT EZP544WT	Maximum Ø21 mm electrical or telecommunication cables	EI 120		
				Blank (no services) Maximum Ø80 mm electrical cables	EI 120 ²⁾		
4	Series 44+	Four or eight gang pathways	EZG444T EZG844T	Maximum Ø21 mm telecommunication cables Blank (no services) Maximum Ø50 mm electrical cables	EI 120 ^{2) 3)}		

See installation instruction from manufacturer for more details:

Requires cable tray in association with cable tray cover and its cover and i

Requires cable tray in association with cable tray cover and intumescent paper sheet to be installed on both sides of wall

³⁾ Requires annular space of opening to be filled with regular construction mortar



European technical approval ETA-13/0887, with validity from 21.06.2013 to 20.06.2018

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	Min 150 mm thick rigid floor						
	Item A		Item B	Item E			
Configuration No.	Penetration Seal / Pathway	Penetration seal configuration	Plate or Grid Kit	Penetrating Service / cables	Resistance to Fire Classification		
2	Series 33	Single pathway	EZP133KT	Maximum Ø21 mm electrical or telecommunication cables Blank (no services)	EI 120 ³⁾		
	5 Series 44+ Single			Maximum Ø21 mm telecommunication cables Blank (no services)	EI 120 ²⁾		
5		Series 44+	Single pathway	es 44+ Single pathway	EZG144T	Maximum Ø50 mm electrical cables	
				Maximum Ø80 mm electrical cables	EI 90 ²⁾		
6	Series 44+ Four or eight gang pathways		EZG444T	Maximum Ø21 mm telecommunication cables	EI 120 ²⁾		
		pathways	EZG844T	Blank (no services) Maximum Ø80 mm electrical cables			

See installation instruction from manufacturer for more details:

Requires cable tray in association with cable tray cover and its Requires cable tray in association with cable tray cover and intumescent paper sheet to be installed on top side of floor

Requires annular space of opening to be filled with regular construction mortar