



## FIRE PROTECTION

Managing the risk of fire saves numerous lives and prevents significant damage.

Fire prevention is an essential part of electrical installations.

It is the job of specialist designers to ensure these installations are safe and comply with the rules for passive protection.

# RULES FOR FIRE PROTECTION



## Divide the different areas into compartments

Confining the fire inhibits it from spreading to the whole building.



#### Stop the fire spreading

Openings in walls and the flammability of cable sheaths encourage fires to spread. Cables are a real central nervous system, spreading fire throughout the whole building.



# Restore the seal of the compartments in the various different areas

The integrity of a fire wall through which electric cables pass must be restored using a firestop product with the same or a higher fire rating than that of the wall.

#### Solutions

- Conventional firestop materials: firestop foams and compounds. The drawback of these is that the firestop device has to be destroyed in order to add cables. Unless the material is fully restored, the integrity and compliance of the feedthrough are compromised.
- The EZ-Path<sup>®</sup> firestop box and the innovative CABLOFIL system.





# CERTIFIED MECHANICAL FIRESTOP SYSTEM



The first automatic mechanical firestop device for electric cables

Particularly suitable for infrastructures requiring modification of the electrical wiring:

- The EZ-Path® firestop devices provide a guarantee against noncompliance statements for firestop feedthroughs at the end of on-site work.
- Report certifying lasting El 120 min rating according to EN 13501-2 classification, fire test according to EN 1366-3 in all types of wall.
- FM Approved, solution meeting the most stringent quality and safety requirements in the world.

#### DURABLE SOLUTION

- Firestop certification guaranteed throughout the entire lifetime of the electrical installation.
- Totally safe seal, with or without cables.
- Factory pre-calibration and empty/full certification of the intumescent materials.

#### EASY INSTALLATION

- The EZ-Path<sup>®</sup> assembly is fixed mechanically: the ideal answer for cable pulling requirements.
- Automatic mechanical cable feedthrough solution.
- It is easy to pull cables, whether or not they are pre-fitted with connectors, using a simple wire puller.

#### ADJUSTABLE INFRASTRUCTURE

- The modules, which are suitable for all types of wall, can be assembled to form a sturdy unit (horizontal or vertical installation).
- Guaranteed flexibility without affecting the integrity of the fire wall: no training or tools are required to add equipment or change configuration, and no dust or debris are created.

# EZ-Path® Permanent automatic mechanical firestop system



The EZ-Path<sup>®</sup> range comprises three module sizes, with numerous ingenious accessories for quick, easy installation, for which no tools or particular qualifications are required.





This versatile system is suitable for any type of structure: concrete walls and floors, or lightweight partitions. Extensions are available for thick walls.

The modules can be dismantled and opened to install further products around cables that are already in place.

#### CONTROL OF COSTS

The EZ-Path  $^{\otimes}$  system is by far the most economical firestop investment.

 $\mathsf{EZ}\operatorname{-Path}^{\circledast}$  is easy to install and does not require any specially skilled staff.

During maintenance, cables can be added and removed as required, with no damage or debris. The fire rating does not have to be restored as it is never altered.

Right from the first work carried out on installations, the return on investment is assured.



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#### STANDARDS AND CERTIFICATIONS

Tested by independent laboratories, the effectiveness of EZ-Path® firestop modules complies with the requirements of the standards. The 305/2011 regulations replaced European directive 89/106/EEC, making CE marking compulsory for firestop products from 1 July 2013 onwards.

#### > STANDARD APPLICATIONS DEFINITION

The fire rating of a product is measured by the lower of the following two values:

- Its seal (E) i.e. the period (min) for which it stops the flames passing
- Its Integrity (I) i.e. the period (min) for which it limits the temperature rise to 180°C

#### AIM

To determine the fire rating of EZ-Path®





#### PROTOCOL

- Construction of a test wall in a furnace
- Insertion of the modules according to required configurations
- Simulation of a fire by increasing the temperature according to a curve defined by the standard
- Checking the Integrity (I) by measuring the temperature of the non-exposed side
- Checking the seal (E) visually

EXAMPLE: a product which withstands the conditions for 2 hours will be rated EI 120.

#### > RESULTS ACCORDING TO THE STANDARDS:

Area	Standard	Rating
Europe	CE marking EN 1366-3 ETA 130993	EI 120 (EN 13501-2)* EI 120 (ETAG 026-2)*
Switzerland	AEAI	EI 90*
Singapore	PSB TUV EN 1366-3	EI 120*
America	ASTM E814/ UL1479	F Rating – 4Hr i.e. E240

Note: the differences in ratings are explained by the differences in the protocols used in different standards

\* EI 120 following models. Certificates available upon request





Metal partitions in the test wall at WFRC

#### AIM

To determine the shipbuilding fire rating of EZ-Path® modules, installed on a metal partition in a ship, in accordance the international standard IMO Resolution A754 (18).

#### PROTOCOL

Similar to the previous tests, except that the wall tested becomes a metal partition.

Rating (A) defines the fire rating (in minutes) of the partitioning in shipbuilding, comparable to the Integrity (I). RESULTS

The tests carried out at the WFRC (Warrington Fire Research Centre), and validated by BV (Bureau Veritas), rate EZ-Path® A60 (deck and bulkhead)

#### > ACOUSTIC BARRIER

The STC Rating (Sound Transmission Class) defines the acoustic seal of firestop products in accordance with standard ASTM E90.

The sound attenuation of EZ-Path® modules is 45 dB.



## **EZ-PATH® selection chart** wall feedthroughs

							1		
Module			Plates <sup>(2)</sup>				Plates	Applica	tions
Module 22	Number of mod.			Туре	Cat.No	Required opening (Height x Width)	Dimensions (Height x Width)	Concrete wall	Dry partit.
EZDP22 (Kit)	1		Module and 2 plates included	EZDP22 (Kit)	CM250518	□ 45 x 45 mm Ø 51 mm	76 x 76 mm	•	~

Dimensions: 37 x 37 x 267 mm (L x H x W)

Module			Plates <sup>(2)</sup>				Plates	Applica	tions
Module 33	Number of mod.			Туре	Cat.No	Required opening (Height x Width)	Dimensions (Height x Width)	Concrete wall	Dry partit.
267 75 75 EZD 33 Cat.No: CM250018 ∭ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	1	<b>()</b>	00	EZP133CWT	CM250240	□ 80 x 80 mm Ø 102 mm	Ø 140 mm	~	~

Мо	dule	Plates <sup>(2)</sup>				Plates	Applica	tions
Module 44	Number of mod.		Туре	Cat.No	Required opening (Height x Width)	Dimensions (Height x Width)	Concrete wall	Dry partit.
356	1		EZP144WT	CM250230	□ 120 x 105 mm Ø 152 mm	178 x 237 mm	~	~
I Notes	1	Ν			🗖 120 x 105 mm			
118	2				□ 120 x 206 mm			
102	3		EZP544WT	CM250250	□ 120 x 309 mm	272 x 610 mm	/	V
<b>EZD 44T</b> Cat.No: CM250058	4				□ 120 x 412 mm			
mm mm	5				□ 120 x 515 mm			(1)
10% additional capacity	4	Z	EZG444WT	CM250360	🗖 120 x 415 mm	275 x 568 mm	~	×
	8	Z	EZG844WT	CM250390	🗆 275 x 415 mm	423 x 568 mm	~	×

Plates used for installations with cables already in place.
Plates for wall feedthroughs are always sold in pairs.

## L<sup>1</sup>legrand

#### **EZ-PATH®**

permanent automatic mechanical firestop system

	Accessories									
Number of modules			Туре	Cat.No	Description					
1		N	EZD33E	CM250078	EZD33 extension Length 150 mm					
1			EZD44E	CM250178	EZD44 extension Length 150 mm					
1		N	RCM33	CM250206	EZD33 dropout					
1			RCM44	CM250306	EZD44 dropout					

## ► CAPACITIES

Cable diameter	Maximum number of cables						
(mm)	EZD22	EZD33	EZD44T				
3	70	368	868				
3.5	54	266	648				
4	35	204	483				
4.5	28	165	399				
5	24	130	323				
5.5	20	108	255				
6	15	88	210				
6.5	12	70	182				
7	12	63	156				
8	6	48	110				
9	6	35	90				
12.5	2	20	42				
15	2	12	30				
18	1	6	20				
20	1	6	16				
25	0	4	9				
30	0	2	6				
35	0	2	4				

### AUTOMATIC GAS EXTINGUISHING SYSTEMS

Depending on the jurisdiction: NFPA 2001, ISO14520, or EN15004 which sets the test requirements for gas fire safety installations.

Rate and leakage area:

	EZD 3	33 empty	100% full		
	m³/h	EqLA cm <sup>2</sup>	m³/h	EqLA cm <sup>2</sup>	
10 Pa	0.01	0.01	0.14	0.16	
25 Pa	0.01	0.01	0.5	0.35	
50 Pa	0.01	0.02	1.29	0.64	
75 Pa	0.01	0.04	2.23	0.91	

	EZD 4	4 empty	100% full		
	m³/h	EqLA cm <sup>2</sup>	m³/h	EqLA cm <sup>2</sup>	
10 Pa	1.57	1.86	1.45	1.62	
25 Pa	2.80	1.98	3.86	2.75	
50 Pa	4.14	2.07	8.11	4.05	
75 Pa	5.21	2.18	12.52	5.10	

The constant performance levels of the EZ-Path® system provide not only fire protection but also a seal against smoke and inhibitory/ inert gases, without requiring any human caulking operations.

## ► EXAMPLES OF WALL INSTALLATION



## **EZ-PATH®** selection chart wall feedthroughs

► EXAMPLES OF FLOOR INSTALLATIONS



## ► EXAMPLES OF FLOOR INSTALLATIONS

Module			Plates <sup>(1)</sup>				Plates	Application
Module 33	Number of mod.			Туре	Cat.No	Required opening (Height x Width)	Dimensions (Height x Width)	Concrete floor
267 75 75 <b>EZD 33</b> Cat.No: CM250018	1			EZP133KT	CM250220	□ 80 x 80 mm Ø 102 mm	Ø 140 mm	~

Module			Plates <sup>(1)</sup>				Plates	Application
Module 44	Number of mod.			Туре	Cat.No	Required opening (Height x Width)	Dimensions (Height x Width)	Concrete floor
356 N 118 1 1	1			EZG144T	CM250260	□ 120 x 105 mm Ø 152 mm	264 x 275 mm	~
102 EZD 44T Cat.No: CM250058	4			EZG444T	CM250370	🗖 155 x 445 mm	212 x 570 mm	~
10% additional capacity	8			EZG844T	CM250380	🗖 155 x 1010 mm	212 x 1140 mm	~

(1) Plates for floor feedthroughs are sold individually.

## EZ-PATH® selection chart

floor feedthroughs

## ► EXAMPLES OF FLOOR INSTALLATIONS



### HEALTHCARE

## HEALTHCARE INSTALLATIONS REQUIRE RIGOROUS PREPARATION AND HAVE NUMEROUS FIREWALLS

Cable management and the addition of new equipment involve numerous difficulties:

- Risk of hospital-acquired infections
- Management of dust and debris
- Noise, interruptions, etc.

With the installation of a flexible cable management system, it is possible to reduce costs and save time, while increasing safety and hygiene.

With EZ-Path<sup>®</sup>, fire walls do not pose any problem.

However they are managed, conventional firestop devices produce dust, debris and other airborne particles. Unlike most outdoor sites, dust and debris can be life-threatening in hospitals and other healthcare establishments.

Hospitals therefore require confinement measures and rigorous precautions to be taken during on-site work.

EZ-Path® is a safe system for adding cables or simply removing existing cables: no training is needed, it is easy to use and no tools are required. With no equipment to be removed or reinstalled, EZ-Path® eliminates the risk of human error and provides foolproof cable protection.

The system is clean and causes no dust or debris. With the EZ-Path® system, the firestop equipment only has to be installed once!

No sealant, putty or foam to be removed and replaced.



#### DATA CENTRES



#### IMPROVED WIRING INFRASTRUCTURE

Are you planning to invest in new equipment? Servers, storage and network components are constantly changing. With a flexible cable management system you can reduce your costs and save time.

EZ-Path® is a safe system for adding cables or simply removing existing cables: no training is needed, it is easy to use and no tools are required.

EZ-Path®, unrivalled flexibility for data environments.

#### **INDUSTRY**

INDUSTRIAL INSTALLATIONS REQUIRE RIGOUROUS PREPARATION IN AREAS WHERE FIRE WALLS PROTECT PRODUCTION AND DATA STORAGE!

Cable management and the addition of new equipment involve numerous challenges: "clean engineering" - management of dust and debris - flexibility to deal with the physical infrastructures, while increasing safety and hygiene.

However they are managed, firestop devices produce dust, debris and other airborne particles. Unlike most outdoor sites, dust and debris can be life-threatening in areas requiring a high level of hygiene.

Cleaning therefore requires confinement measures and rigorous precautions to be taken during on-site work. EZ-Path® is a clean system which causes no dust or debris! With the EZ-Path® system, the firestop equipment only has to be installed once! No sealant, putty or foam to be removed and replaced. Nothing to be adjusted. Nothing to be loosened or re-tightened.







**Head office** and International Department 87045 Limoges Cedex - France Tel.: + 33 (0) 5 55 06 87 87 Fax: + 33 (0) 5 55 06 74 55