

# UL-EU CERTIFICATE

**Certificate No.** UL-EU-00640-CPR  
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**Date of Issue** 2014-09-25  
**Revision** 2021-06-17

**Certificate Holder** FSi Limited  
Westminster Industrial Estate  
Tamworth Road  
Measham  
DE12 7DS  
United Kingdom

**Manufacturer** A/008

**Certified Product Type** Fire Stop – Pillows  
**Product Trade Name** S-Line Pillows  
**Trademark** N/A  
**Rating/Classification** See Appendix

**Harmonised Technical Specifications** ETAG 026-2 / EN 13501-2  
**Supporting Documentation** ETA 20/1031, EC – CERTIFICATE OF CONSTANCY OF PERFORMANCE - 2812 – CPR – JA5008, Classification Report No. 4789860640  
**Additional information** Additional test evidence is held on file  
**Expiry date** 2024-09-24



A handwritten signature in purple ink, appearing to read 'Chris Miles', is located to the left of the authorized certification decision maker's name.

**Authorized Certification Decision Maker**  
Chris Miles

This is to certify that representative samples of the Certified Product listed above have been investigated by Underwriters Laboratories to the Standard(s) indicated on this Certificate, in accordance with the UL Global Services Agreement and the UL-EU Mark Service Terms and Conditions ("Agreement"). The Certificate Holder is entitled to use the UL-EU Mark for the Certified Product listed on the certificate and manufactured at the production site(s) listed, in accordance with the terms of the Agreement. Only those products bearing the UL-EU Mark for Europe should be considered as being covered by UL's UL-EU Mark Service. This Certificate shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.



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This certificate relates to the use of S-Line Pillows for fire stopping where services pass through flexible or rigid walls. The detailed scope is given in pages 3 to 12 of this Certificate. This shows the thickness and acceptable dimensions, substrates, services and orientations required to provide fire resistance periods of up to 120 minutes.

The product is certificated on the basis of:

- i) ETA 20/1031 EC – CERTIFICATE OF CONSTANCY OF PERFORMANCE 2812 – CPR – JA5008
- ii) Inspection and surveillance of factory production control by UL
- iii) Fire resistance test data in accordance with 1366-3: 2009
- iv) Classification in accordance with EN 13501-2
- v) Durability and Servicability as defined in ETAG 026-2

The durability class of S-Line Pillows is Z<sub>1</sub> - intended for use at internal conditions with high humidity, excluding temperatures below 0°C



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Product-type: Pillow		Intended use: Penetration Seal	
Basic requirement for construction work	Basic Requirement	Performance	
<b>BWR 1 Mechanical resistance and stability</b>			
-	None	Not relevant	
<b>BWR 2 Safety in case of fire</b>			
EN 13501-1	Reaction to fire	Class F	
EN 13501-2	Resistance to fire	See page 5	
<b>BWR 3 Hygiene, health and environment</b>			
EN 1026:2000	Air permeability (material property)	See page 4	
ETAG 026-3, Annex C	Water permeability (material property)	No performance determined	
Declaration of manufacturer	Release of dangerous substances	Declaration of manufacturer	
<b>BWR 4 Safety in use</b>			
EOTA TR 001:2003	Mechanical resistance and stability	No performance determined	
EOTA TR 001:2003	Resistance to impact/movement	No performance determined	
EOTA TR 001:2003 ISO 11600	Adhesion	No performance determined	
<b>BWR 5 Protection against noise</b>			
EN 10140-2/ EN ISO 717-1	Airborne sound insulation	$R_w(C;Ctr) = 33 (0;-2) \text{ dB}^*$	
EN 10140-3/ EN ISO 717-2	Impact sound insulation	No performance determined	
<b>BWR 6 Energy economy and heat retention</b>			
EN 12664, EN 12667 or EN 12939	Thermal properties	No performance determined	
EN ISO 12572 EN 12086	Water vapour permeability	No performance determined	
<b>General aspects relating to fitness for use</b>			
ISO 8339: 2005, ISO 9046: 2004 & ISO 7389: 2003	Durability and serviceability	$Z_1$	
<b>BWR 7 Sustainable use of natural resources</b>			
-	-	No performance determined	

\* As given in ETA, see page 5 for additional ratings



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## S-Line Pillows: Air Permeability according to BS EN 1314-1

Pressure (Pa)	Results under positive chamber pressure		Results under negative chamber pressure	
	Leakage (m <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> / h)	Leakage (m <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> / h)
50	2.5	13.9	3.1	17.2
100	4.1	22.8	5.6	31.1
150	5.8	32.2	7.4	41.1
200	7.2	40.0	8.9	49.4
250	8.7	48.3	10.3	57.2
300	9.8	54.4	11.1	61.7
450	13.4	74.4	15.3	85.0
600	17.5	97.2	18.6	103.3



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S-Line Pillows: Acoustic performance according to BS EN ISO 10140-2:2010		
Configuration	$R_w(C; C_{tr})$ Specimen only, 1m <sup>2</sup>	$D_{new}$ Partition & Specimen
500mm wide x 2000mm high, aperture filled with 114 No. S-Line Pillows	30 (0; -2)	43 (0; -2)
	<p>Sound reduction index, R, in dB</p> <p>Frequency, f, Hz</p> <p>— Rating Curve (ISO 717-1) — Sound Reduction Index, R, in dB</p>	

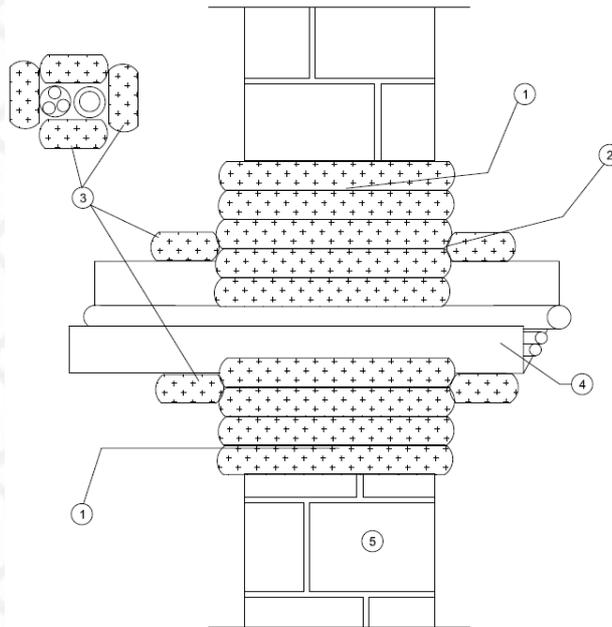


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## S-Line Pillows: Penetration Seals in Walls (cables)

S-LINE PILLOWS FIRE RESISTANT CABLE & CABLE TRAY PENETRATION SEAL WITH ADDITIONAL PILLOWS THROUGH RIGID WALL HORIZONTAL ORIENTATION



- 1 - S-LINE FIRE PILLOWS
- 2 - S-LINE PILLOWS - VARIOUS SIZES TO FIT VOID
- 3 - ADDITIONAL S LINE PILLOWS
- 4 - CABLE TRAY AND CABLES
- 5 - RIGID WALL CONSTRUCTION

Substrate	Minimum Substrate Thickness (mm)	Maximum Seal Size (mm)	Seal Position	Minimum Seal Depth (mm)	Services (wrapped with additional 300 mm long pillows where they exit the seal)	Fire Resistance (mins.)	
						E	EI
Masonry/ Concrete	150	1100 x 1100	Central	300*	Telecom cables up to 21 mm Ø (single or in bundles up to 100 mm Ø)	120	120
					Electrical cables up to 21 mm Ø	120	60
					Electrical cables up to 80 mm Ø	120	120
					Unsheathed wires up to 24 mm Ø	120	90
					Plastic conduits and tubes up to 16 mm Ø	120	60
					Steel, copper conduits and tubes up to 16 mm Ø	120	90
					Cable trays or ladders up to 300 mm wide	120	60
Cable trays up to 500 mm wide	120	90					

\* with equal projection to both faces

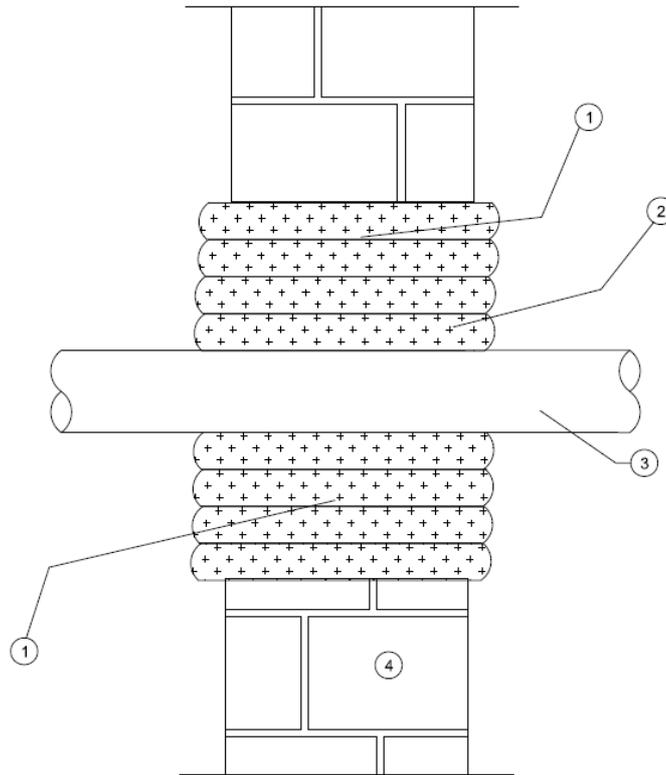


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## S-Line Pillows: Penetration Seals in Walls (uninsulated metal pipes)

S-LINE PILLOWS FIRE RESISTANT UN-INSULATED METALLIC PIPE  
 PENETRATION SEAL THROUGH RIGID WALL HORIZONTAL ORIENTATION



- 1 - S-LINE FIRE PILLOWS
- 2 - S-LINE PILLOWS- VARIOUS SIZES TO FIT VOID
- 3 - UN-INSULATED METALLIC PIPE - COPPER / STEEL
- 4 - RIGID WALL CONSTRUCTION

Substrate	Minimum Substrate Thickness (mm)	Maximum Seal Size (mm)	Seal Position	Minimum Seal Depth (mm)	Services	Fire Resistance (mins.) <sup>^</sup>	
						E	EI
Masonry/ Concrete	150	1100 x 1100	Central	300*	165 mm Ø by 5.6-14.2 mm thick walled mild steel pipe	120	0

\* with equal projection to both faces  
<sup>^</sup> C/U pipe end configuration

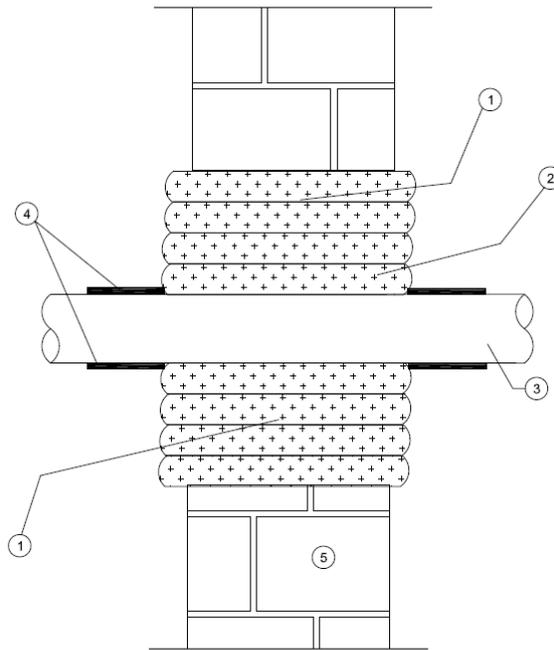


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## S-Line Pillows: Penetration Seals in Walls (local interrupted insulated metal pipes)

S-LINE PILLOWS FIRE RESISTANT METALLIC PIPE PENETRATION  
 SEAL WITH TDW THROUGH RIGID WALL HORIZONTAL  
 ORIENTATION



- 1 - S-LINE FIRE PILLOWS
- 2 - S-LINE PILLOWS - VARIOUS SIZES TO FIT VOID
- 3 - METALLIC PIPE - COPPER / STEEL
- 4 - THERMAL DEFENSE WRAP - TDW 300mm - LI
- 5 - RIGID WALL CONSTRUCTION

Substrate	Minimum Substrate Thickness (mm)	Maximum Seal Size (mm)	Seal Position	Minimum Seal Depth (mm)	Services (wrapped with 300 mm long Thermal Defense Wrap where they exit the seal)	Fire Resistance (mins.) <sup>^</sup>	
						E	EI
Masonry/ Concrete	150	1100 x 1100	Central	300*	48 mm Ø by 3.5-14.2 mm thick walled mild steel pipe (7 mm TDW)	120	120
					113 mm Ø by 4.5-14.2 mm thick walled mild steel pipe (10 mm TDW)		

\* with equal projection to both faces

<sup>^</sup> C/U pipe end configuration

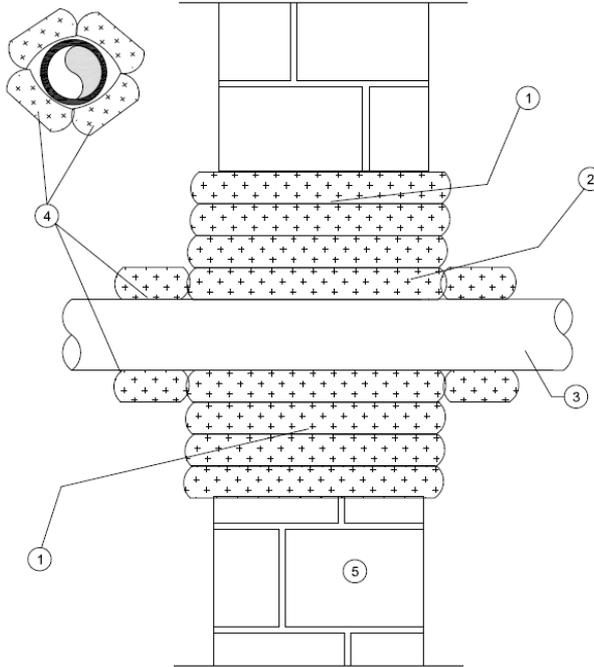


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## S-Line Pillows: Penetration Seals in Walls (local interrupted insulated metal pipes)

S-LINE PILLOWS FIRE RESISTANT METALLIC PIPE PENETRATION  
 SEAL WITH ADDITIONAL PILLOWS THROUGH RIGID WALL  
 HORIZONTAL ORIENTATION



- 1 - S-LINE FIRE PILLOWS
- 2 - S-LINE PILLOWS - VARIOUS SIZES TO FIT VOID
- 3 - METALLIC PIPE - COPPER / STEEL
- 4 - ADDITIONAL S-LINE PILLOWS - LI
- 5 - RIGID WALL CONSTRUCTION

Substrate	Minimum Substrate Thickness (mm)	Maximum Seal Size (mm)	Seal Position	Minimum Seal Depth (mm)	Services (wrapped with additional 300 mm long pillows where they exit the seal)	Fire Resistance (mins.) <sup>^</sup>	
						E	EI
Masonry/Concrete	150	1100 x 1100	Central	300*	108 mm Ø by 1.5-14.2 mm thick walled copper pipe	120	90

\* with equal projection to both faces

<sup>^</sup> C/U pipe end configuration

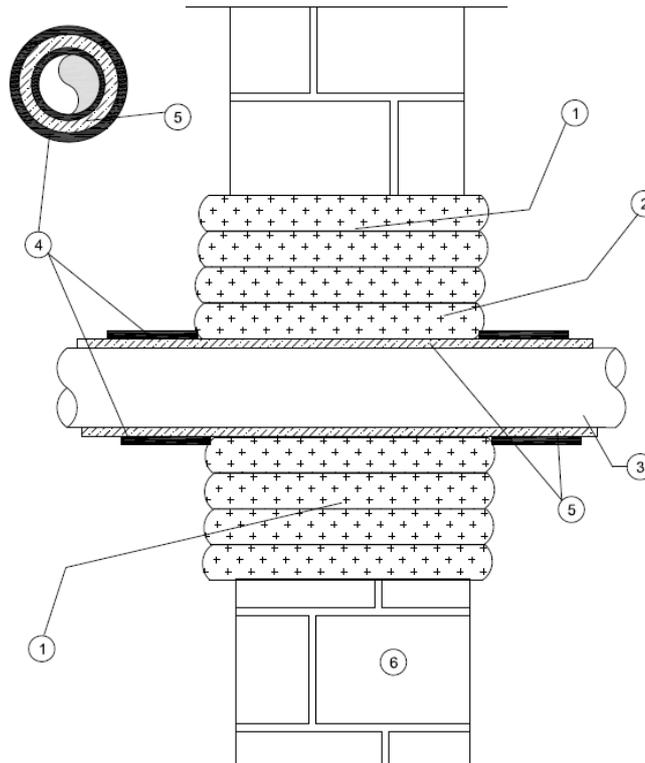


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## S-Line Pillows: Penetration Seals in Walls (insulated metal pipes)

S-LINE PILLOWS FIRE RESISTANT INSULATED WITH ARMAFLEX  
 METALLIC PIPE PENETRATION SEAL WITH TDW THROUGH RIGID  
 WALL HORIZONTAL ORIENTATION



- 1 - S-LINE FIRE PILLOWS
- 2 - S-LINE PILLOWS - VARIOUS SIZES TO FIT VOID
- 3 - METALLIC PIPE - COPPER / STEEL
- 4 - THERMAL DEFENSE WRAP - TDW 300mm - LI (Local Interrupted)
- 5 - ARMAFLEX INSULATION - LS (Local Sustained)
- 6 - RIGID WALL CONSTRUCTION

Substrate	Minimum Substrate Thickness (mm)	Maximum Seal Size (mm)	Seal Position	Minimum Seal Depth (mm)	Services (wrapped with 250 mm long Thermal Defense Wrap where they exit the seal)	Fire Resistance (mins.) <sup>^</sup>	
						E	EI
Masonry/ Concrete	150	1100 x 1100	Central	300*	54 mm Ø by 1.0-14.2 mm thick walled copper pipe with 15 mm thick Armaflex AF insulation continuous through the seal and extending at least 400 mm to each face (2x layers of 100 mm TDW)	120	120

\* with equal projection to both faces

<sup>^</sup> C/U pipe end configuration

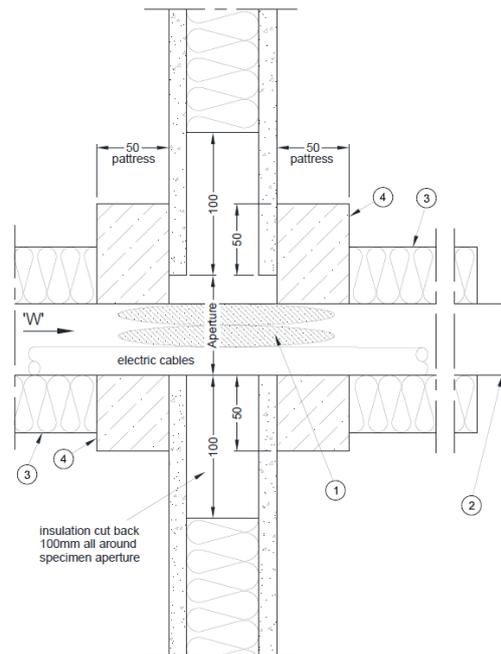


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## S-Line Pillows: Penetration Seals in Walls (locally insulated electrical cables and cable trunking)

S-LINE PILLOWS FIRE RESISTANT ELECTRIC TRUNKING AND ELECTRIC CABLE PENETRATION SEAL WITH ROCK FIBRE INSULATION THROUGH SINGLE LAYER PATTRISS STOPSEAL FIRE BATT 50mm, IN FLEXIBLE OR RIGID WALL HORIZONTAL ORIENTATION



- 1 - S-LINE FIRE PILLOWS
- 2 - ELECTRICAL TRUNKING CONTAINING 3No. ELECTRIC CABLES
- 3 - ROCK FIBRE INSULATION - 400mm - LI (Local Interrupted)
- 4 - STOPSEAL FIRE BATT PATTRISS

Substrate	Minimum Substrate Thickness (mm)	Maximum Seal Size (mm)	Seal Position	Minimum Seal Depth (mm)	Services (wrapped with 400 mm long rock fibre insulation where they exit the seal)	Fire Resistance (mins.) <sup>^</sup>	
						E	EI
Drywall/ Masonry/ Concrete	75	70 x 70	Central	300*	50mm x 50mm Insulated steel cable trunking, Stone Wool 40mm thick, 45kg/m <sup>3</sup> (LI 400mm). S-Line Pillow tightly fitted around the cables in the section of trunking within the depth of the partition.	60	60
					Cables 1xA1, 1xA2, 1xA3	60	60
					Cables 1xA1		
					Cables 1xA2		
Cables 1xA3							

\* with equal projection to both faces

<sup>^</sup> U/U pipe end configuration

<sup>1</sup>Pattress installation of Stopseal Coated Batt. The Batts are installed in horizontal rows, bedded onto the partition using Pyrocoustic Fire Resistant Sealant and fixed in minimum two vertical edges. Overlap of batts to substrate min 50mm. Batts mechanically fixed to substrate with min 6mm x 70mm steel screws and steel retaining washer.

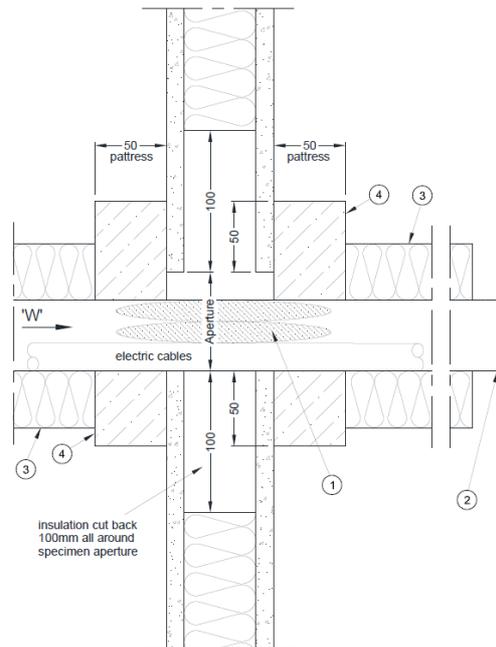


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## S-Line Pillows: Penetration Seals in Walls (locally insulated electrical cables and cable trunking)

S-LINE PILLOWS FIRE RESISTANT ELECTRIC TRUNKING AND ELECTRIC CABLE PENETRATION SEAL WITH ROCK FIBRE INSULATION THROUGH SINGLE LAYER PATTRISS STOPSEAL FIRE BATT 50mm, IN FLEXIBLE OR RIGID WALL HORIZONTAL ORIENTATION



- 1 - S-LINE FIRE PILLOWS
- 2 - ELECTRICAL TRUNKING CONTAINING 3No. ELECTRIC CABLES
- 3 - ROCK FIBRE INSULATION - 400mm - LI (Local Interrupted)
- 4 - STOPSEAL FIRE BATT PATTRISS

Substrate	Minimum Substrate Thickness (mm)	Maximum Seal Size (mm)	Seal Position	Minimum Seal Depth (mm)	Services (wrapped with 400 mm long rock fibre insulation where they exit the seal)	Fire Resistance (mins.) <sup>^</sup>	
						E	EI
Drywall/ Masonry/ Concrete	75	170 x 170	Central	300*	150mm x 150mm Insulated steel cable trunking, Stone Wool 40mm thick, 45kg/m <sup>3</sup> (LI 400mm). S-Line Pillow tightly fitted around the cables in the section of trunking within the depth of the partition.	60	60
					Cables 1xB, 1xC1, 1xG2, 1x G3	60	60
					Cables 1xB		
					Cables 1xC1		
					Cables 1xG1		
Cables 1xG2							

\* with equal projection to both faces

<sup>^</sup> U/U pipe end configuration

<sup>1</sup>Pattress installation of Stopseal Coated Batt. The Batts are installed in horizontal rows, bedded onto the partition using Pyrocoustic Fire Resistant Sealant and fixed in minimum two vertical edges. Overlap of batts to substrate min 50mm. Batts mechanically fixed to substrate with min 6mm x 70mm steel screws and steel retaining washer.

27-CP-F0855 Issue: 3.1



# Appendix UL-EU Certificate

<b>Certification Mark</b>	<b>UL-EU mark</b>
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The UL-EU Mark, as displayed below, shall appear on certified products only. Minimum size is not specified, as long as the Mark is legible. The following is suggested.



The minimum height of the registered trademark symbol ® shall be 1 mm. When the overall diameter of the UL-EU Mark is less than 9.5 mm, the trademark symbol may be omitted if it is not legible to the naked eye.

The UL-EU Mark may appear on a label, nameplate, or may be cast, stamped or molded into the product. When appearing on a label or nameplate, the Manufacturer's name or trademark along with a model number are also required on that same label or nameplate. If cast, stamped or molded, the Manufacturer's name or trademark and model number shall also appear elsewhere on the product.

All content shall be in accordance with the details provided on this UL-EU Certificate.

## PROCUREMENT

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