DAVIS®

Always Ahead ™

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Modular Flushfloor Trunking System

DAVIS®

POWER DISTRIBUTION & CABLE MANAGEMENT SYSTEMS

Davis, well known for introducing modern underfloor cable management system 60 years ago, is a pioneer in cable management systems. Today, Davis remains at the forefront of the cable management industry.

With more than half a century of cable management leadership and technology, Davis continues to innovate and improvise its vast range of cable management products which complies with the most stringent technical specifications and the highest standards of today's modern office requirements.

Davis has of a team of dynamic and dedicated pool of design engineers and professional sales force, providing first class service and support for the company's wide range of products. Our people will always be there to ensure all its high-performance products meet the ever changing trends and demands of smart homes, stylish office designs, intelligent building structures and sophisticated monumental skyscrapers.

At Davis, we always produce what the market wants. We always keep up with new challenges of the electrical industry. Davis adopts a policy of continuous improvement, producing competitively priced products and is committed to give excellent customer service which keeps us *"Always Ahead"*.

With strategically located manufacturing and support facilities and an extensive distribution network across the region, Davis is well positioned to meet every exact need and requirement of our customers all over the world.

DAVIS range of products includes:-

- Modular Flushfloor Trunking System
- Raised Floor Trunking System
- Underfloor Trunking System
- Heavy Duty Underfloor Trunking System
- 63A 240/415V Raised Floor Bustrack System
- 200A – 6300A Busway System

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POWER DISTRIBUTION & CABLE MANAGEMENT SYSTEMS

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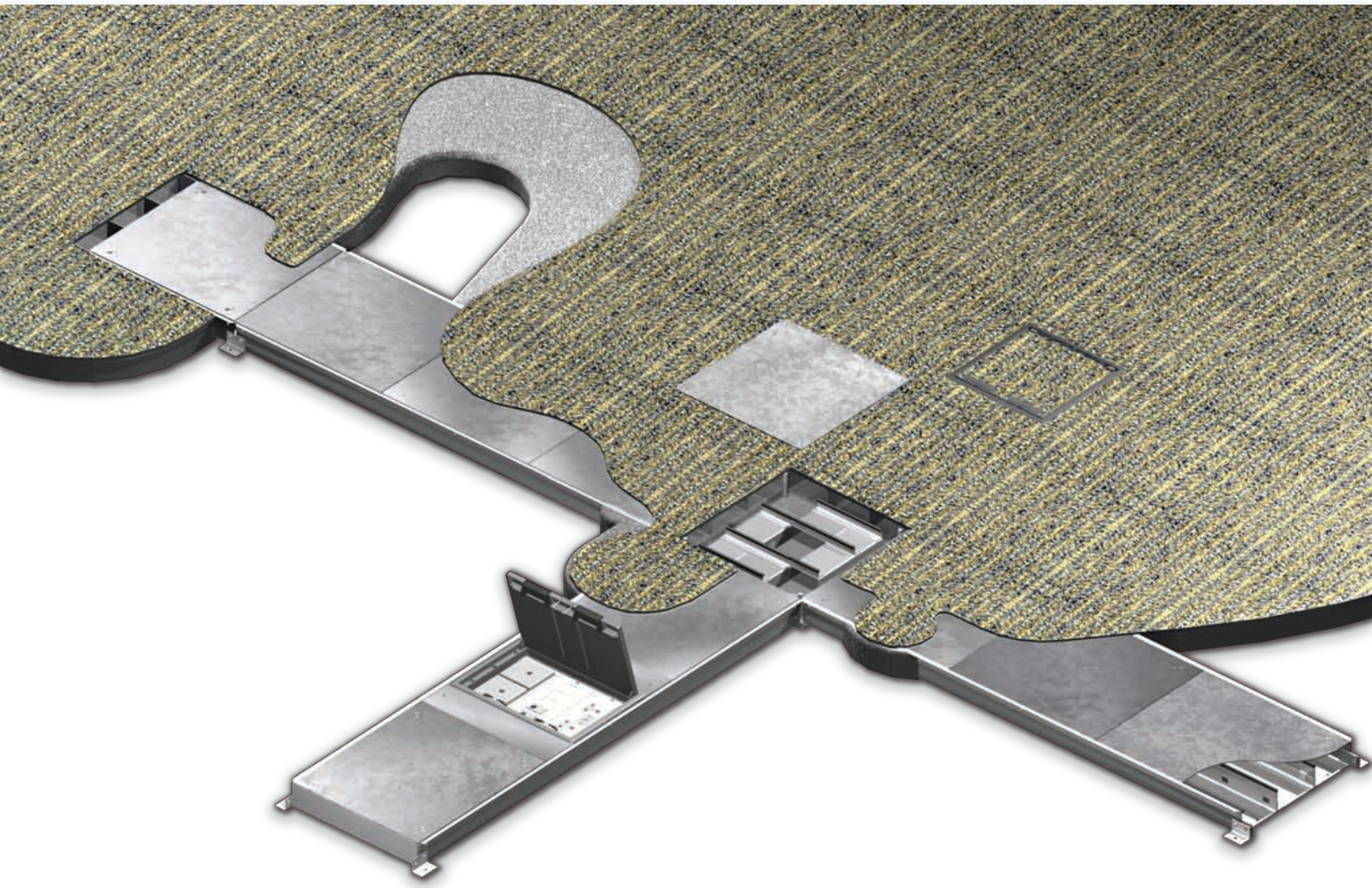
MODULAR FLUSHFLOOR TRUNKING SYSTEM



Introduction

DAVIS Modular Flushfloor Trunking System is designed for the distribution of power, voice and data services on the screeded floor, particularly where flexibility in the positioning of service outlets is required.

DAVIS Modular Flushfloor Trunking System consists of three main components:

- A Modular Flushfloor Trunking with a comprehensive range of accessories including, vertical access box, end cap and reducer.
- A Service Outlet box within the body of the trunking which accepts a wide range of power, voice and data socket plates. This Service Outlet box can be relocated.
- A comprehensive range of Junction Boxes including 'tee', 'elbow' and 'cross' types, all supplied complete with flyovers at any position along the length of the trunking run.

Feature Benefits

- Constructed from pre-galvanized steel sheets in accordance with BS 4678 : Part 2, BS EN 50085-2-2 & IEC 61084-2-2.
- Trunking, Trap & frame tested to withstand 3.5kN and 4.5kN concentrated load and uniform load in accordance with BS EN 50085-2-2.
- Modular design features to ensure a fast and simple installation.
- Designed to support CAT 6 structured cabling systems.
- Suitable for screeded depth 60mm and above.
- Floorboxes are IP30 rated in accordance with BS EN 60529.
- Trunking is supplied in 406mm, 812mm and 1220mm lengths with 2 or 3 compartments.
- Each trunking comes with 3 separately fixed covers (each 406mm long) complete with flushed quick-fix fasteners for easy installation.
- Choice of 1, 2 or 3 compartment floor boxes.
- Wide range of power and data accessories available to meet all requirements.

CP270 Service Box

CP270 Trap and Frame

- 6mm recess.
- made from flame retardant, engineering plastics (Nylon 66).
- trap is prevented from detachment by a unique hinge mechanism.
- trap opens up to more than 90° and is self-closing.
- trap is 180° rotatable.
- colour comes in light grey.
- trap is reinforced with a pre-galvanized infill plate for maximum strength and durability.

Handle

- stainless steel handle for durability and reliability.

Grommet with Cable Retainer

- enable the trap to be shut flat while cable protruding safely through the grommet.

Flap Cover

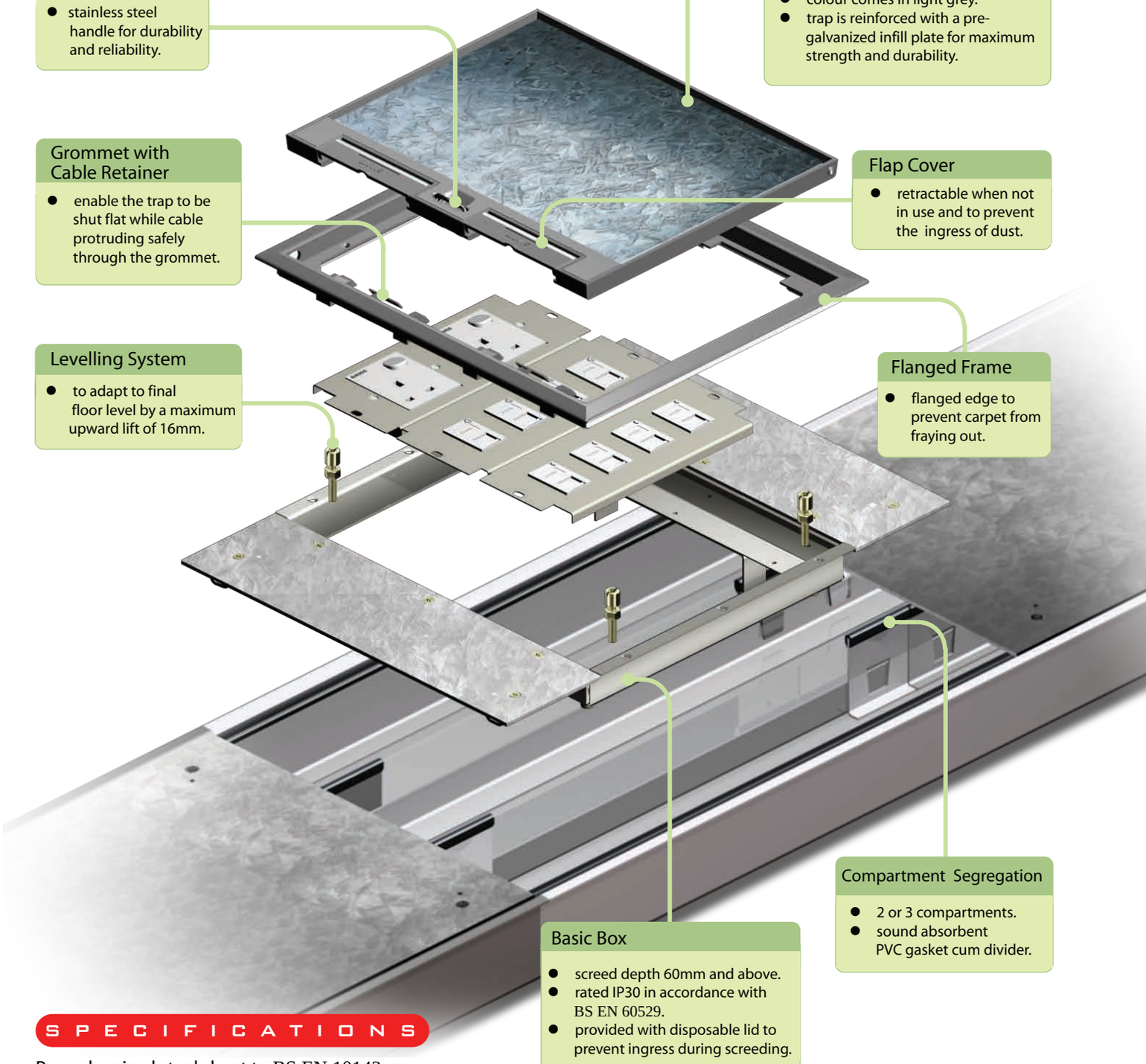
- retractable when not in use and to prevent the ingress of dust.

Levelling System

- to adapt to final floor level by a maximum upward lift of 16mm.

Flanged Frame

- flanged edge to prevent carpet from fraying out.



Compartment Segregation

- 2 or 3 compartments.
- sound absorbent PVC gasket cum divider.

Basic Box

- screed depth 60mm and above.
- rated IP30 in accordance with BS EN 60529.
- provided with disposable lid to prevent ingress during screeding.

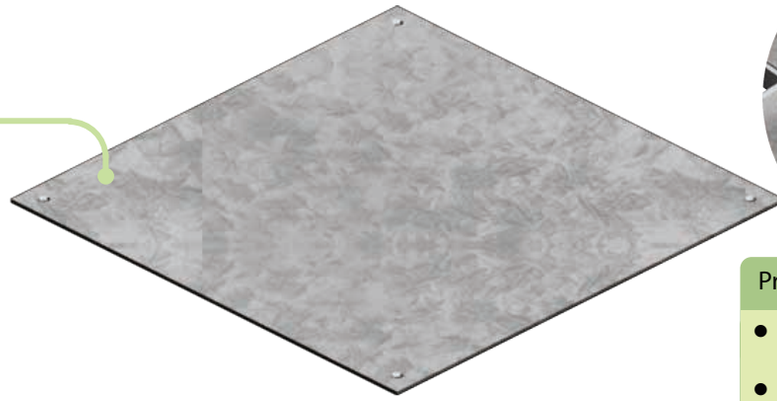
SPECIFICATIONS

Pre-galvanized steel sheet to BS EN 10142 or BS EN 10327 or JIS G3302.

JUNCTION BOXES

Cover

- cover constructed from 2.5mm thick pregalvanized steel sheets.



Pre-galvanized Steel Flyover

- a two-piece flyover to ease the pulling of cables.
- compartment segregation and protection from electromagnetic interferences via a steel flyover in compliance with I.E.E regulations.

Side Plate

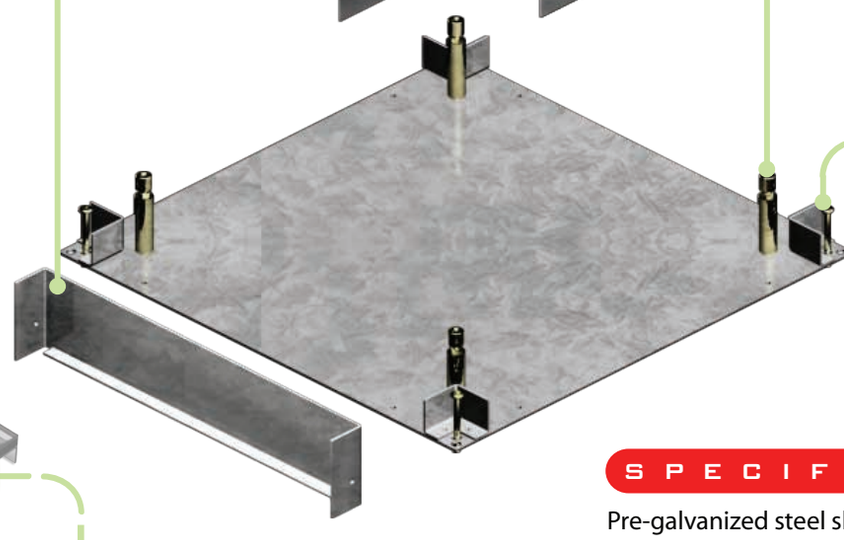
- supplied with one piece of side plate used to convert junction box from 'cross' to 'tee' or 'elbow' type.

Levelling System

- can be adjusted to adapt to final floor level.

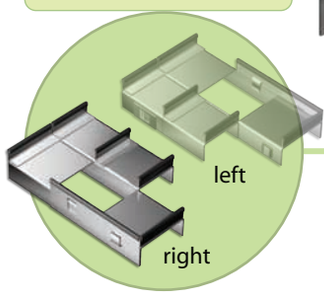
Adjustable System Height

- adjustable bolt to adapt to screed height prior to screeding.



Convertible 'Tee'

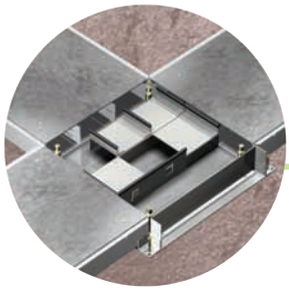
- convertible to 'left' type and 'right' type to adapt to dense cable routing and ring circuit.



SPECIFICATIONS

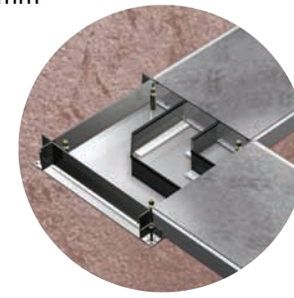
Pre-galvanized steel sheets to BS EN 10142, BS EN 10327 or JIS G3302.

Cover : 2.5mm
Base plate : 1.2mm



Tee

Cross

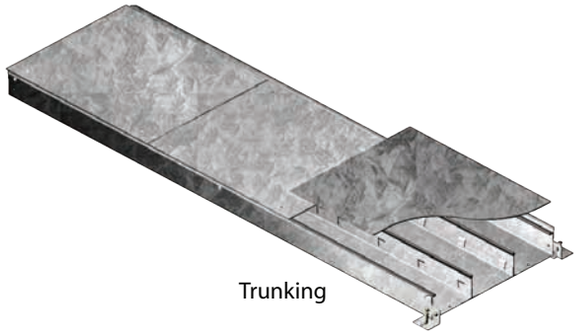


Elbow

Service Box

CP270 Service Box

Box Size L X W X H (mm)	Model		Trunking Entry W X H (mm)
	2 Compartments	3 Compartments	
270X230X60 270X230X65	MFCP270/300/2/60 MFCP270/300/2/65	MFCP270/300/3/60 MFCP270/300/3/65	300X60 300X65
270X230X60 270X230X65	MFCP270/400/2/60 MFCP270/400/2/65	MFCP270/400/3/60 MFCP270/400/3/65	400X60 400X65

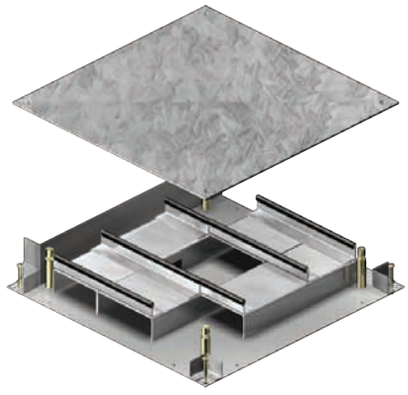


Trunking

Trunking

Trunking Entry W X H (mm)	Model	Compartment Configuration
	2 Compartments	
300X60 300X65	EMFT300/2/60 EMFT300/2/65	150 / 150 150 / 150
400X60 400X65	EMFT400/2/60 EMFT400/2/65	200 / 200 200 / 200
	3 Compartments	
300X60 300X65	EMFT300/3/60 EMFT300/3/65	100 / 100 / 100 100 / 100 / 100
400X60 400X65	EMFT400/3/60 EMFT400/3/65	150 / 100 / 150 150 / 100 / 150

* Other trunking sizes are also available.

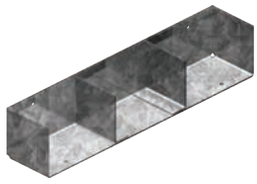


Junction Box

Junction Box

Trunking Entry W X H (mm)	Model	Compartment Configuration
	2 Compartments	
300X60 300X65	EMFJ300/2/60 EMFJ300/2/65	150 / 150 150 / 150
400X60 400X65	EMFJ400/2/60 EMFJ400/2/65	200 / 200 200 / 200
	3 Compartments	
300X60 300X65	EMFJ300/3/60 EMFJ300/3/65	100 / 100 / 100 100 / 100 / 100
400X60 400X65	EMFJ400/3/60 EMFJ400/3/65	150 / 100 / 150 150 / 100 / 150

* Supplied with 1 piece of side plate to be used to convert junction box from 'cross' to 'tee' or 'elbow' type.



Vertical Access Box

End Cap

Vertical Access Box / End Cap

Trunking Entry W X H (mm)	Model		End Cap
	2 Compartments	3 Compartments	
300X60 300X65	EMFV300/2/60 EMFV300/2/65	EMFV300/3/60 EMFV300/3/65	EMFE300/3/60 EMFE300/3/65
400X60 400X65	EMFV400/2/60 EMFV400/2/65	EMFV400/3/60 EMFV400/3/65	EMFE400/3/60 EMFE400/3/65

DAVIS® MODULAR FLUSHFLOOR TRUNKING SYSTEM

MODULAR FLUSHFLOOR LAYOUT VIEW

VERTICAL ACCESS BOX
- is specifically designed to access the electrical distribution board or a surface trunking system.

TRUNKING COVER
- cover (406mm long) is interchangeable with a service outlet.

FIXING BRACKET
- supplied with joint accessories and adjustable bolt to fix trunking on the base floor and to adjust to screed height prior to screeding.

TRUNKING SYSTEM
- constructed from pre-galvanized steel sheets in accordance with BS 4678 : Part 2, BS EN 50085-2-2 & IEC 61084-2-2.

SERVICE OUTLET BOX
- adapts to a universal range of panel-mounted accessories for power, data and telecom services.

END CAP
- to terminate trunking run and prevent the ingress of dust and dirt.

ACCESSORIES
- a full range of accessories such as floor pedestal boxes, round grommets, extension screw terminals, offsets etc. are available.

DAVIS® MODULAR FLUSHFLOOR TRUNKING SYSTEM

STRENGTH AND DURABILITY
- cover thickness to withstand load up to 4.5kN load.
- fasteners and joint accessories are of corrosion resistant material (BS 1872 : 1995).

MODULAR DESIGN
- service box can be located at any position along trunking run.
- cover is provided in 406mm section for accessibility.
- cover is easily removed or fastened via quick-fix fasteners.

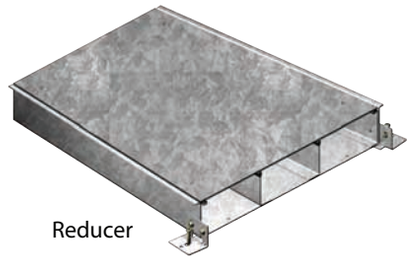
SLOT-IN DIVIDER
- to allow easy removal and re-location of the service box without any special tool.

TRUNKING CONNECTOR
- a pair of internal connector plates to secure two adjacent trunkings.
- a piece of earth link is provided for each trunking joint to guarantee electrical continuity.

PRE-GALVANIZED STEEL FLYOVER
- a two-piece flyover to ease the pulling of cables.
- compartment segregation and protection from electromagnetic interferences via a steel flyover in compliance with IEE regulations.

DAVIS QUICK-FIX FASTENERS
- cover comes with quick-fix fasteners for easy installation.

GASKET
- sound absorbent PVC gasket to prevent the transmission of sound.


Reducer

Reducer

Trunking Entry W X H (mm)		Model	
From	To	2 Compartments	3 Compartments
400X60 400X65	300X60 300X65	EMFR430/2/60 EMFR430/2/65	EMFR430/3/60 EMFR430/3/65


Adaptor

Flushfloor/Underfloor Adaptor

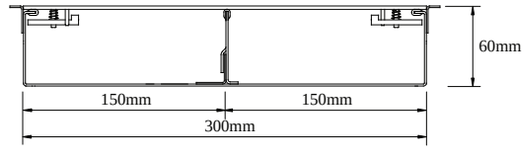
Trunking Entry W X H (mm)		Model	
Flushfloor	Underfloor	2 Compartments	3 Compartments
300X60 300X65	225X25 225X25	EMUF322/2/60 EMUF322/2/65	EMUF322/3/60 EMUF322/3/65
400X60 400X65	225X25 225X25	EMUF422/2/60 EMUF422/2/65	EMUF422/3/60 EMUF422/3/65

* Other pairs of modular flushfloor and underfloor interfaces are also available.

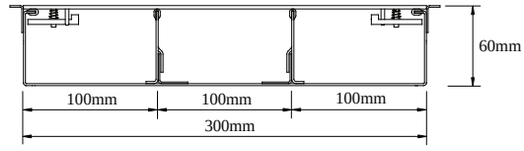
Technical Data

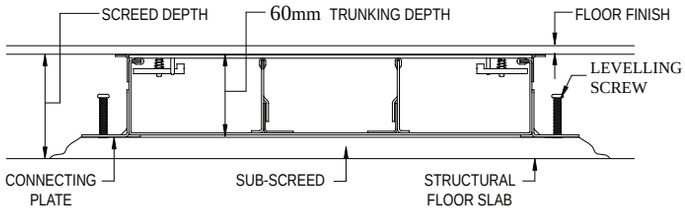
For 60mm trunking height

2 COMPARTMENT TRUNKING



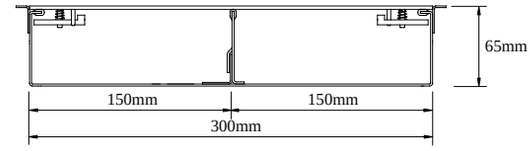
3 COMPARTMENT TRUNKING



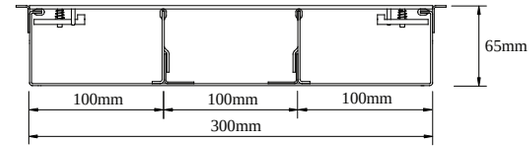


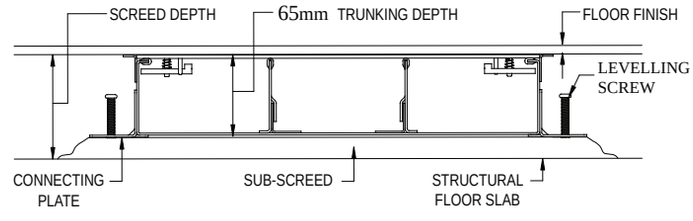
For 65mm trunking height

2 COMPARTMENT TRUNKING



3 COMPARTMENT TRUNKING





It is recommended that when installing this system, the trunking and junction boxes must be laid directly onto a fully supported sub-screed across the length and width of the system in order to ensure a firm installation.

TECHNICAL SPECIFICATIONS

Modular Flushfloor Trunking

Material	Pre-galvanized steel sheets in accordance with BS EN 10142, BS EN 10327 or JIS G3302.
Strength	The modular flushfloor trunking system shall be able to withstand the following loading test:- a) Concentrate load test – 3.0kN @25mm sq. steel platen b) Concentrate load test – 4.5kN @300mm sq. steel platen c) Uniform distributed load test – 8.0kN/m^2 d) Maximum deflection shall not exceed 3mm for these loadings (BS EN 50085-2-2).
Construction	Trunking shall be modular design in equal sections to facilitate installation and subsequent removal and interchanging of covers and service boxes. The compartment dividers shall be easily removed and readily reinstated without using special tools or modification of parts. At trunking sections in which service outlet boxes are not required, the compartment dividers shall be raised to the trunking height.
Sound Proofing	The flushfloor trunking shall be gasketted with extruded PVC gasket to prevent the transmission of sound between the trunking body and the cover.
Earthing	A copper link shall be used for each joint to maintain electrical earth continuity and shall be installed at the internal side of the trunking.
Corrosion	Any screws or bolts/nuts used in any part of the trunking, particularly for joint of each trunking and the earth link shall be corrosion resistant (electroplated to BS EN ISO 2081), smooth and should not cause any damage to wiring during installation.
Standard Thickness	Body and partition 1.2mm, Cover 2.5mm. Other cover thickness is also available.
Standard Lengths	406mm, 812mm and 1220mm
No. of Compartments	2 and 3 compartments
Standard Heights	60mm, 65mm and above

Junction Box / Service Outlet Box

Modular Design	The service outlet box shall be concealed type and each module shall be similar in length with the flushfloor trunking cover for interchangeability.
Strength	The cover for the service outlet box shall be constructed from engineering plastic (nylon 66) reinforced with pre-galvanized steel sheets infill plate. The trap is 6mm recess to receive thermo-plastic tiles or carpet. The frame shall be flanged to prevent carpet from fraying out. Junction box cover shall be constructed from 2.5mm thick pre-galvanized steel sheets.
Lid Opening	Service outlet cover shall be 180° rotatable and shall have cable grommet with cable retainer and the junction box cover is secured by counter sunk screws.
Electromagnetic Compatibility	Junction Box shall be provided with the pre-galvanized steel sheets flyover for compartment segregation. Due to electromagnetic interferences, the use of plastics flyover is not suitable. This is to comply with the latest I.E.E. regulations. A Service outlet box shall have fully segregated outlet panels to isolate the services in compliance with the latest I.E.E regulations.

Layout Design

A COMB DESIGN

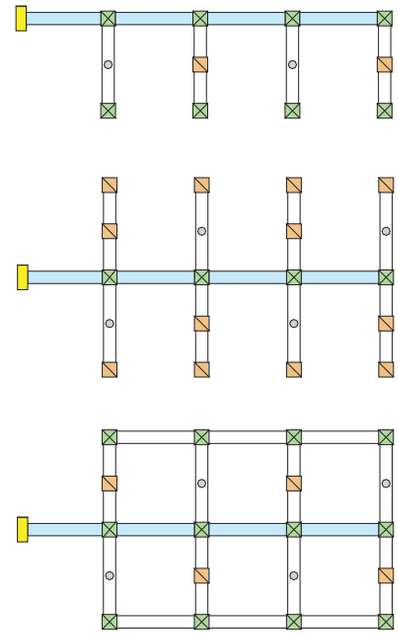
More suitable for low density service area. This pattern uses less trunking and offers an extremely cost-effective solution. This design is typically used for modular flushfloor, raised floor and underfloor systems.

A FISHBONE DESIGN

Widely used in areas where tenants require a good degree of flexibility in reorganizing work areas. This design is typically used for modular flushfloor, raised floor and underfloor systems.

A GRID DESIGN

Most widely used pattern where the tenants require a greater degree of flexibility in reorganizing work areas. This pattern allows the work place capacity to be increased and the capacity of rewiring through individual ring networks. This design is typically used for modular flushfloor and underfloor systems.



Cable Capacity Guide

			300x60x2C	300x60x3C	400x60x2C	400x60x3C	300x65x2C	300x65x3C	400x65x2C	400x65x3C
Capacity (mm^2) per compartment (45% fill)			3739	2473	5006	3317	4072	2692	5451	3612
Cable type	**CSA** (mm^2/mm)	**Cable Factor**	Capacity (no.) per compartment (45% fill)							
Power Cables										
PVC Stranded	1.5 mm^2	8.6	434	287	582	385	473	313	633	419
	2.5 mm^2	12.6	296	196	397	263	323	213	432	286
	4 mm^2	16.6	225	148	301	199	245	162	328	217
	6 mm^2	21.2	176	116	236	156	192	126	257	170
	10 mm^2	35.3	105	70	141	93	115	76	154	102
	16 mm^2	47.8	78	51	104	69	85	56	114	75
	25 mm^2	73.9	50	33	67	44	55	36	73	48
Twin & Earth	2.5 mm^2	86	43	28	58	38	47	31	63	41
	4 mm^2	99	37	24	50	33	41	27	55	36
	6 mm^2	148	25	16	33	22	27	18	36	24
Data Cables										
CAT 5e UTP	5.5 dia	30.2	123	81	165	109	134	89	180	119
CAT 5e STP	6 dia	36	103	68	139	92	113	74	151	100
CAT 6 UTP	6.5 dia	42.2	88	58	118	78	96	63	129	85
CAT 6 STP	7 dia	49	76	50	102	67	83	54	111	73

The table above gives the available capacity units on 45% factor (IEE Wiring Regulation), applied to internal wiring area and serves as a guideline only.

G INSTALLATION GUIDE

The structural floor slab shall be level and smooth. Humps and protruding cement must be hacked to level. As the trunking will finish flushed with the floor level, it is recommended that the trunking be laid on ribbon screed or sub-screed of a minimum 10mm and a suitable width to suit trunking size.

Step 1: Use trunking layout drawing to select a fixed starting point for installation, for instance a junction box. Tie two guide lines approximately 150mm above the floor slab at 90° to each other. Position the first junction box below the intersection of the guide lines.

Step 2: Position the junction boxes and trunkings to reflect the layout drawing. The box's position can be used as a reference point. Insert the trunking approximately 40mm into the box.

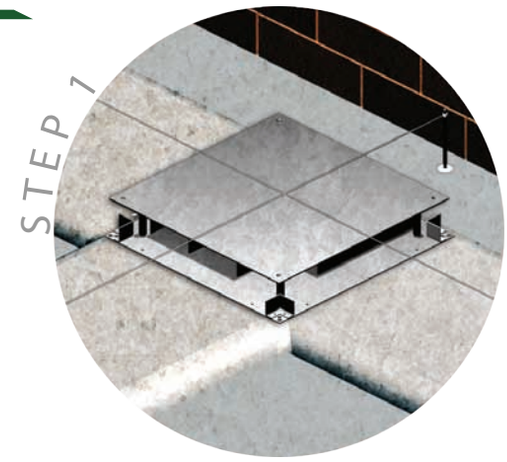
Step 3: Overlay the edge of the trunking to the base of the junction box. Use the joint holes to fasten the junction box with the trunking. Use base plate holes provided to fasten junction box to the slab.

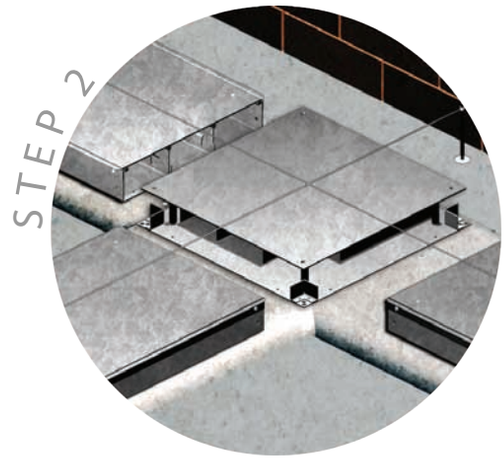
Step 4: Use trunking connectors with earth link to couple two adjacent trunkings. Use fixing brackets to secure trunkings on the floor slab.

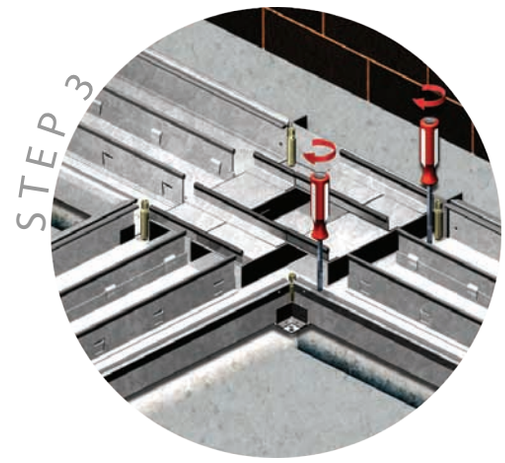
Step 5: All service boxes should be properly covered with disposable lids taped with plastic films to prevent the ingress of cement during screeding. The trunking cover can be set as a screed depth datum. The system is now ready for screeding to take place.

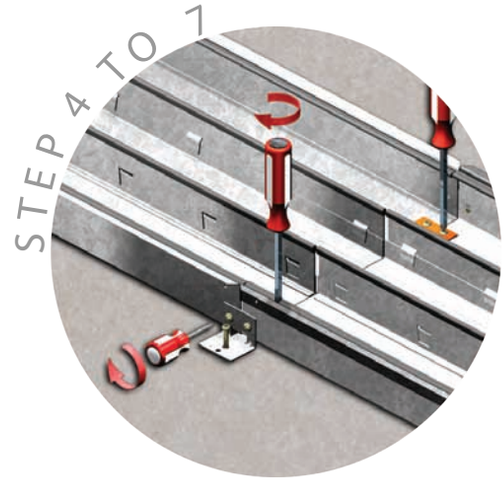
Step 6: When the screed is completely dried, open up all the covers for inspection and cleaning. Remove the ingress and dry up the water in the system. Commence with the wiring installation.

Step 7: To install a service outlet box, first remove the trunking cover. Replace the long slot-in dividers with short slot-in dividers. Drop in service box and secure the service box to the system using quick-fix fasteners. Add outlet panels and fix trap and frame onto support bolts.







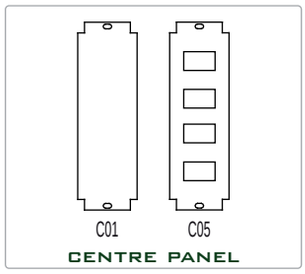


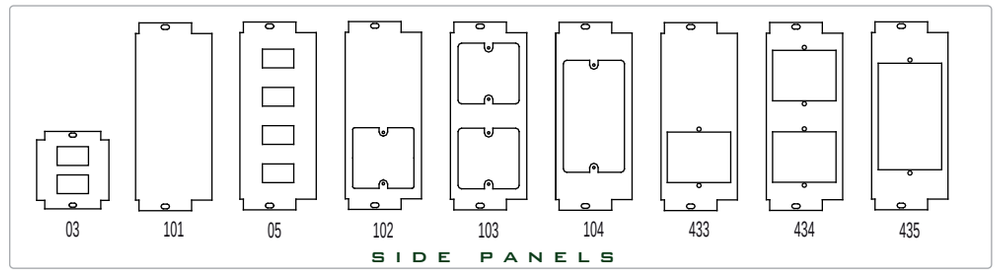
Design Criteria

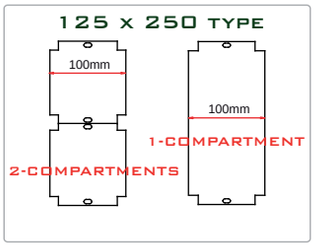
- During the design stage, the designer shall take into consideration a space factor of 45% fill for future expansion and one should take note that upon passing through a junction box, the trunking space will be reduced by at least 50%.
- The recommended spacing of the fish, comb or grid is between 2500-3500mm. This minimum spacing applies the same from junction box-to-junction box, trunking-to-trunking and service outlet box to service outlet box.
- Recommended distance between the flushfloor trunking and the perimeter wall of the office area shall be 1000mm.
- It is recommended that all wiring terminations at workstation shall be flexible to enable relocation of the floor service outlet box within 4 meters along the trunking run. Cables laid complete with terminations shall be tested to requirements.

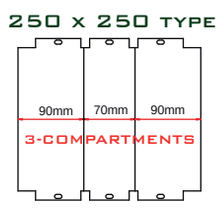
DAVIS® ACCESSORIES

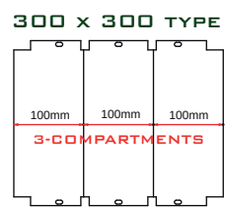
OUTLET PANELS

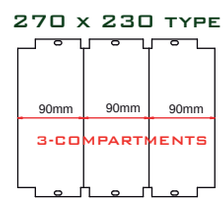


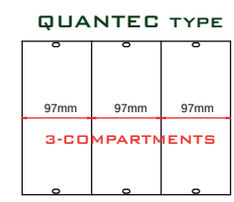


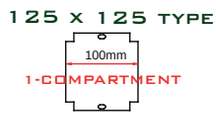


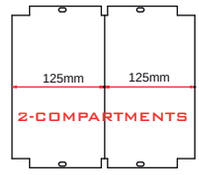


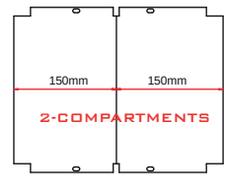


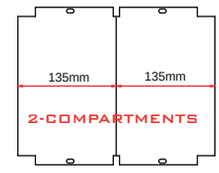


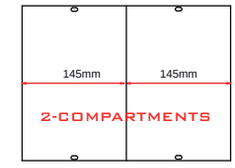












Description	125 x 125	125 x 250		250 x 250			QUANTEC		
	1-Compart.	1-Compart.	2-Compart.	2-Compart.	3-Compart.		2-Compart.	3-Compart.	4-Compart.
					CENTRE	SIDES			
Blank plate				OP125 101	OP70 C01	OP90 101	ST145 C01	ST97 C01	SF72 C01
2 nos. Cut-out RJ45 37x22.5mm	OP125 03S		OP125 03D						
4 nos. Cut-out RJ45 37x22.5mm		OP100 05D		OP125 05	OP70 C05	OP90 05	SF145 C05	ST97 C05	SF72 C05
Cut-out in accordance to BS4662 1G	OP125 102S	OP100 102D	OP125 102D	OP125 102		OP90 102	SF145 102	ST97 102	
Cut-out in accordance to BS4662 2x1G		OP100 103D		OP125 103		OP90 103	SF145 103	ST97 103	
Cut-out in accordance to BS4662 2G		OP100 104D		OP125 104		OP90 104	SF145 104	ST97 104	
1G 13A DAVIS Switched Socket Outlet	OP125 433S	OP100 433D	OP125 433D	OP125 433		OP90 433	SF145 433	ST97 433	
2x1G 13A DAVIS Switched Socket Outlet		OP100 434D		OP125 434		OP90 434	SF145 434	ST97 434	
2G 13A DAVIS Switched Socket Outlet		OP100 435D		OP125 435		OP90 435	SF145 435	ST97 435	

Description	300 x 300			270 x 230		
	2-Compart.	3-Compart.		2-Compart.	3-Compart.	
		CENTRE	SIDES		CENTRE	SIDES
Blank plate	OP150 101	OP100 C01	OP100 101	OP135 2 101	OP90 2 C01	OP90 2 101
4 nos. Cut-out RJ45 37x22.5mm	OP150 05	OP100 C05	OP100 05	OP135 2 05	OP90 2 C05	OP90 2 05
Cut-out in accordance to BS4662 1G	OP150 102	OP100 C102	OP100 102	OP135 2 102	OP90 2 C102	OP90 2 102
Cut-out in accordance to BS4662 2x1G	OP150 103	OP100 C103	OP100 103	OP135 2 103	OP90 2 C103	OP90 2 103
Cut-out in accordance to BS4662 2G	OP150 104	OP100 C104	OP100 104	OP135 2 104	OP90 2 C104	OP90 2 104
1G 13A DAVIS Switched Socket Outlet	OP150 433	OP100 C433	OP100 433	OP135 2 433	OP90 2 C433	OP90 2 433
2x1G 13A DAVIS Switched Socket Outlet	OP150 434	OP100 C434	OP100 434	OP135 2 434	OP90 2 C434	OP90 2 434
2G 13A DAVIS Switched Socket Outlet	OP150 435	OP100 C435	OP100 435	OP135 2 435	OP90 2 C435	OP90 2 435

Note : All outlet panels supplied are epoxy coated. Non-standard outlet panels are also available upon request.

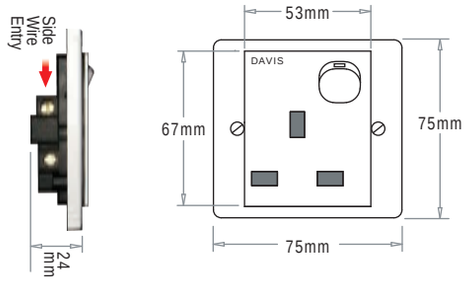
13A Switched Socket Outlets - Side Wire Entry

DAVIS one and two gang 13A Switched Socket Outlets are specially designed to be slim (24mm) with side wire entries to suit underfloor service boxes.

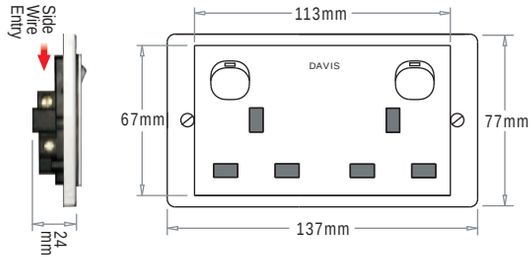
Rating / Standard : 240V, 13A a.c / BS 1363 : Part 2

3 terminals to accommodate : 4x2.5mm² cables each or 3x4.0mm² cables each

Approved by : JKR & Suruhanjaya Tenaga

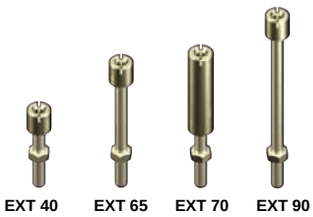


Model	Description
D13/1GS	1 Gang 13A Switched Socket
D13/1GSN	1 Gang 13A Switched Socket with Neon
D13/1GS RD	1 Gang 13A Switched Socket with Red Dolly
D13/1GSN RD	1 Gang 13A Switched Socket with Neon and Red Dolly



Model	Description
D13/2GS	2 Gang 13A Switched Socket
D13/2GSN	2 Gang 13A Switched Socket with Neon
D13/2GS RD	2 Gang 13A Switched Socket with Red Dolly
D13/2GSN RD	2 Gang 13A Switched Socket with Neon and Red Dolly

Underfloor Box Extension Screw Terminals

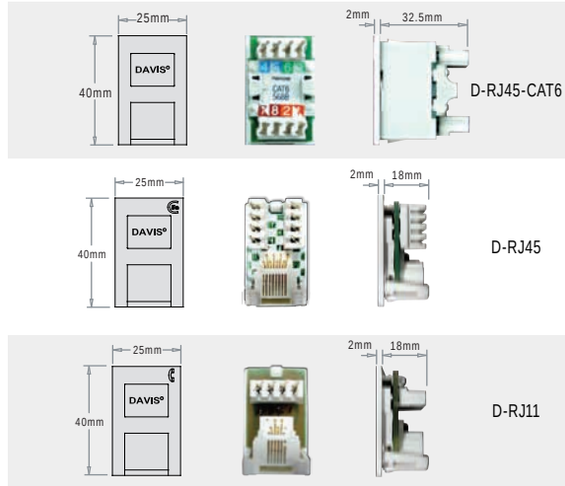


Model	Description
EXT 70 + EXT 65	120 - 160mm
EXT 90	95 - 120mm
EXT 65	75 - 95mm
EXT 40	STANDARD (50 - 72mm)

Data & Telephone Outlets

DAVIS modular type RJ45 & RJ11 data outlets are specially designed to suit underfloor service boxes.

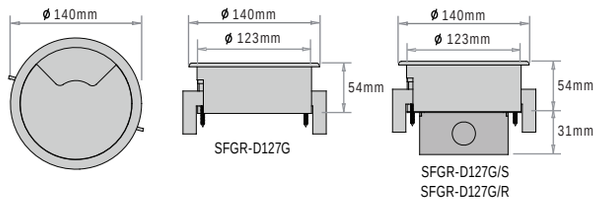
Comply with : TIA/EIA-568-B specifications
Come with : IDC connector and shutter
Hole cut-out : 37mm x 22.5mm



Model	Description
D-RJ11	4-Way RJ11 Telephone Socket Outlet
D-RJ45	CAT 5e RJ45 Data Outlet - TIA/EIA-568-B
D-RJ45-CAT6	CAT 6 RJ45 Data Outlet - TIA/EIA-568-B

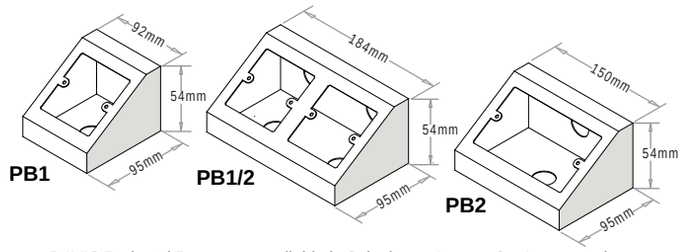
Service Access Grommets

DAVIS Service Access Grommet provides a convenient and low-cost solution to data, power and voice services for raised access floors. Recommended cut-out hole is Ø127mm.



Model	Description
SFGR-D127G	5" Service Access Grommet w/o Box
SFGR-D127G/S	5" Service Access Grommet c/w 1 Gang 13A Switched Socket Outlet
SFGR-D127G/R	5" Service Access Grommet c/w 2 nos. RJ45 / RJ11 Knock out Hole

Floor Pedestal Boxes



DAVIS Pedestal Boxes are available in 3 designs : 1 gang, 2 x 1 gang and 2 gang for mounting onto Underfloor or Flushfloor Trunkings. They are constructed from pre-galvanized steel sheets with epoxy finish. The socket outlet fixing are in accordance with BS 4662.

DAVIS®

Always Ahead™

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