# VEROTEC Electronics Packaging

System Integration Contract Manufacture

# KM6 Front Panels & Plug-in Units

Verotec offers an extensive range of front panels and plug-in units that meet the requirements of IEC 60297-3 / DIN 41494 and IEEE 1101.10. A large number of accessories and a full customising service ensure the needs of both board manufacturers and subrack users alike are met.

# UNSHIELDED FRONT PANELS

All front panels in this category are manufactured from 2.5mm aluminium and come in two versions. **Version 1** is manufactured from pre-anodised material, has a horizontal grain and is supplied with plastic bushes as standard. **Version 2** has an anodised front face and chromated, conductive rear face for applications where electrical continuity is required to the front extrusions. They have a vertical grain and are supplied with metal bushes.

Front panels that are 2HP-9HP wide are supplied with 1 x fixing screw / bush top and bottom where as front panels in 10HP-84HP widths are supplied with 2 x fixing screws / bushes top and bottom.

All front panels are supplied in kits. "**Blank**" panels simply come with fixing hardware where as "**Standard**" panels include plastic handles and aluminium handle idents. Front panel sizes are 3U/6U heights and 2HP-84HP widths with "**Hinged**" and "**Ejector**" versions also being available.

# PLUG-IN UNITS

There are two main types of plug-in unit, **"Standard"** and **"Enhanced"**. Standard types are constructed with module guide rails and incorporate the standard (version 1) front panels described above, with 3HP-9HP units having 2 x rails and 10HP-42HP units having 4 x rails. Enhanced types use an extruded side cover which incorporates a guide rail top and bottom. They are more robust and provide a higher level of shielding than standard types. They use the standard (version 2) front panels described above with a chromated inner face. 3HP-9HP units have a single left-hand extruded cover (2-Rail) with the right cover being formed metal whilst on 10HP-42HP units, both side covers are extruded (4-Rail).

# SHIELDED FRONT PANELS

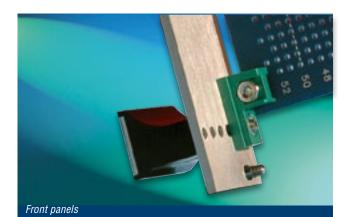
All front panels in this category are manufactured from 2.5mm think extruded aluminium with vertical grain and a clear chromated finish or polyester overlay. They are fitted with a stainless steel EMC finger strip and are available with or without a pre-location pin.

"Blank" panels are supplied with the EMC finger strip fitted but come without fixings. "Standard" panel kits are supplied with the EMC finger strip fitted and a kit containing fixing screws, metal bushes (for maximum conductivity) and handles. 4HP-9HP width panels have a single screw fixing position top and bottom whereas 10HP-12HP width panels have two screw fixing position top and bottom.

Front panel sizes are 3U/6U/9U heights and 4HP-12HP widths with handles being available in "Fixed", "Ejector" or "Inject / Eject" versions.

## VXI FRONT PANELS AND MODULES

To support the VXIbus standard, a range of screened "C" and "D" size modules and front panels are available with ejector handles to aid easy extracton.



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# BLANK FRONT PANELS 3U AND 6U

- Conform to IEC 60297-3 and DIN 41494
- Comprehensive range of widths, available in kit or bulk pack form

Having only the standard sight hole and retaining screw holes, these panels have no handles, leaving the total area free for the mounting of instruments, switches, meters, etc. They can also be used at the rear of a subrack for mounting plug and socket connectors.

Version 1 have anodised front and inner faces. The method of manufacture produces cut edges which will not be visible in normal use. Version 1 panels can be identified by their 957 prefix. Material grain is horizontal and the kit includes plastic retaining inserts as standard. These inserts can be replaced with a metal type (see page10).

# BULK PACKING

Subject to minimum quantities, we can supply front panel kits in bulk, offering savings in packaging and unpacking time. Please specify '**BULK PACK**' when ordering.

# CONTENTS OF KITS

Description	Material
Front panel	2,5mmg ALMg3 ½ hd anodised
Special screw	M2,5 x 11mm
Retaining insert	Plastic – see text above

# ORDERING INFORMATION

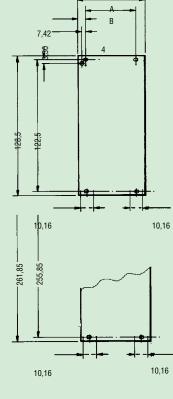
Description: Blank panels 3U, version 1

Doboription	Diality partois 00, voi sion 1		
Width	A	В	Order code
2HP	9,8	_	957-236038
3HP	14,84	-	957-236041
4HP	19,92	-	957-236042
5HP	25	-	957-236043
6HP	30,08	-	957-236044
7HP	35,16	-	957-236045
8HP	40,24	-	957-236046
9HP	45,32	-	957-236047
10HP	50,4	35,56	957-236056
12HP	60,56	45,72	957-236057
14HP	70,72	55,88	957-236059
21HP	106,28	91,44	957-236061
24HP	121,52	106,68	957-236062
42HP	212,96	198,12	957-236063
60HP	304,4	289,56	957-236064
84HP	426,32	411,48	957-236065
Description: Bl	ank front panels 6U - version 1		
2HP	9,8	-	957-236048
3HP	14,84	-	957-236049
4HP	19,92	-	957-236050
5HP	25	-	957-236051
6HP	30,08	-	957-236052
7HP	35,16	-	957-236053
8HP	40,24	-	957-236054
9HP	45,32	-	957-236055
10HP	50,4	35,56	957-236066
12HP	60,56	45,72	957-236067
14HP	70,72	55,88	957-236068
21HP	106,28	91,44	957-236069
24HP	121,52	106,68	957-236070
42HP	212,96	198,12	957-236071
12111	212,90	150,12	
60HP	304,4	289,56	957-236072



Blank front panels – 3U and 6U

# 7,42 4 7,42 4 7,42 4 7,42 4 10,16 (12,5) 88' 192 10,16 (12,5)



#### Order separately

Product	Page
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Screws, bushes and fixings	10



# **Unshielded blank front panels**

#### KM6-II HORIZONTALLY HINGED PANEL

Typically used in situations where quick access is needed to equipment, but it is not desirable to remove the panel completely - e.g. as a socket mounting or display panel.

A range of aluminium panels is supplemented by a 3U, 84HP smoked transparent version for use where it is necessary to view instruments or indicators.

Standard kits are supplied with plastic hinges. A die-cast metal hinge kit is available separately as an accessory to replace the plastic type.

**Version 1** has anodised front and rear faces. The method of manufacture produces cut edges which are invisible in normal use. The kit includes plastic retaining inserts and plastic hinges as standard. Both plastic inserts and hinges can be replaced by metal versions.

**Version 3** is a decorative panel, being entirely anodised after manufacture. It is supplied in kit form with plastic inserts and hinges as standard. These inserts and hinges can be replaced with metal versions.

### **CONTENTS OF KITS**

Description	Material/Finish	
Hinged panel	Lexan Polycarbonate, UL 94.VO	
Two hinges and fixings	Polypropylene, black	
Metal hinge kit:		
Two hinge sets and fixings	Mazak, painted black	

# **ORDERING INFORMATION**

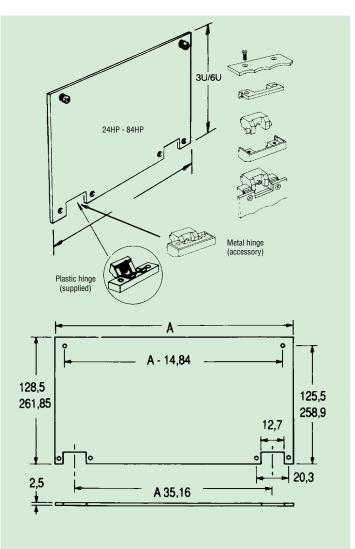
# Description: Horizontally hinged front panel

Height	Width	Туре	Hinge	А	Order code
	24HP	Version 1	Plastic	121,52	957-236180
3U	42HP	Version 1	Plastic	212,96	957-236181
50	60HP	Version 1	Plastic	304,40	957-236182
	84HP	Version 3	Plastic	426,32	953-236184
6U	84HP	Version 3	Plastic	426,32	953-236190

#### Transparent horizontally hinged front panel

Description: Smoked transparent front panel - horizontal					
3U	84 HP	-	Plastic	426,32	953-236516
Hinge	kit				
Descrip	otion: Metal hinge I	kit			
Hinge I	kit				174-26556C





#### Order separately

Product	Page
Additional card mounting brackets	10
Screws, bushes and fixings	10



# KM6-II VERTICALLY HINGED PANEL

Two hinge types are available: heavy duty metal and a lighter duty, plastic type. They can be hinged right or left as required. Both types are supplied in 3U and 6U, 84HP wide.

Version 3 is a decorative panel, being entirely anodised after manufacture. It is supplied in kit form with plastic inserts as standard which can be replaced with a metal type. These inserts can be replaced with a metal type - please see page 10 for details.

# BULK PACKING

Subject to minimum quantities, we can supply panel kits in bulk, offering savings in packaging and unpacking. Please specify '**BULK PACK**' when ordering.

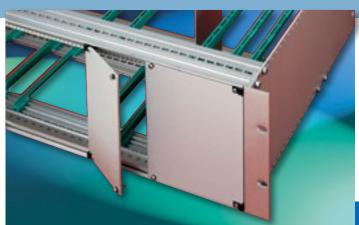
# **Contents of kits**

Description	Material/Finish
Panel	2,5mm Aluminium, etch and anodised
1 set of hinges	Luranyl¤ 2452/1 black
Metal hinges	Die-cast end bracket, extruded aluminium hinge
plate	
All fixings	

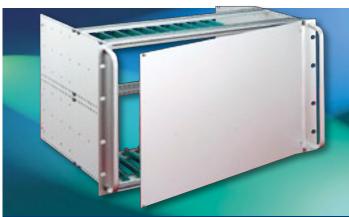
# **Ordering information**

Description: Hinged front panel - vertical

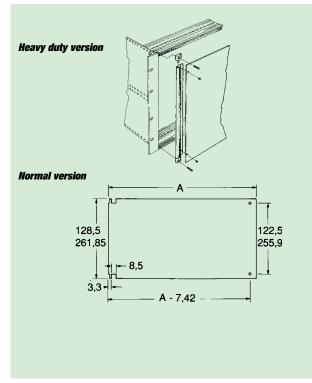
Height	Width	Туре	Hinge	А	Order code
3U 84HP	84HD	4HP Version3	Plastic	426,32	953-236121
	0405		Heavy duty	416,65	953-236125
6U 84HP	84HP Version 3	Plastic	426,32	953-236124	
	0405	Version 5	Heavy duty	416,65	953-236126



KM6-II plastic hinge versions



KM6-II metal hinge versions



#### Order separately

Product	Page
Additional card mounting brackets	10
Screws, bushes and fixings	10



# Unshielded standard front panels

#### STANDARD TYPE 3U AND 6U

- Two versions, available in comprehensive range of widths
- Supplied in kit or bulk pack form
- Conforms to IEC 60297-3 and DIN 41494

Version 1 has anodised front and inner faces. The method of manufacture produces cut edges which are invisible in normal use. Material grain is horizontal. The kit includes as standard plastic retaining inserts, which can be replaced with a metal type.

Version 2 has an anodised front face and a chromated, conductive inner face for grounding purposes. Supplied with metal retaining inserts as standard.

#### **BULK PACKING**

Subject to minimum quantities, we can supply front panel kits in bulk, offering savings in packaging and unpacking time. Please specify 'BULK PACK' when ordering.

# **CONTENTS OF KITS**

Item	Description	Material
0	Front panel	2,5mmg ALMg3 1/2 hd
2	Handle	Luranyl¤ 2452/1,black
3	Ident label	1,5mmg A1Mg3 ½ hd anodised
4	Screw M2, 5 x 16	
6	Screw M2, 5 x 7	
6	Special screw M2,5 x 11	
0	Nut M2,5	
8	Shakeproof washer M2,5	
9	Retaining insert	See Text
	Assembly instructions	

# ORDERING INFORMATION

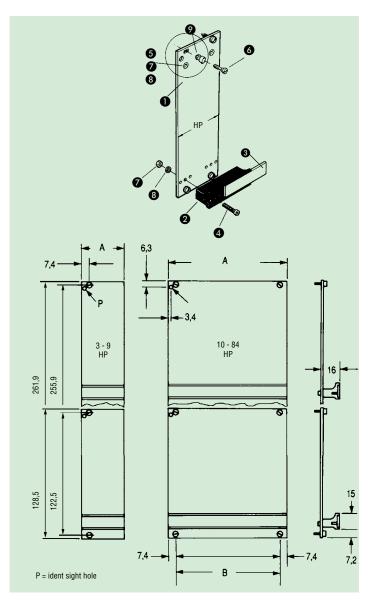
Description: Standard front panels - <b>3U</b>					
Panel	Dim 'A'	Dim 'B'	Order code	Order code	
width			Version 1	Version 2	
3HP	14,8	-	957-235347	953-235335 🕲	
4HP	19,9	-	957-235348	953-235336	
5HP	25,0	-	957-235349	953-235339	
6HP	30,1	-	957-235351	953-235340	
7HP	35,2	-	957-235352	953-235341 🕲	
8HP	40,2	-	957-235353	953-235342	
9HP	45,3	-	957-235354	953-235376 🕲	
10HP	50,4	35,6	957-235355	953-235343 🕲	
12HP	60,6	45,7	957-235356	953-235344 🕲	
14HP	70.7	55,9	957-235357	953-235345 🕲	
21HP	106,3	91,4	957-235358	953-235346 🕲	
24HP	121,5	106,7	957-235359	-	
42HP	213,0	198,1	957-235360	-	
84HP	426,3	411,5	957-236065*	-	

Description	: Standard front	panels - <b>6U</b>		
4HP	19,9	-	957-235459	953-235442 🛛
5HP	25,0	-	957-235460	-
6HP	30,1	-	957-235461	953-235444 🛛
7HP	35,2	-	957-235462	-
8HP	40,2	-	957-235463	953-235446J@
10HP	50,4	35,6	957-235465	-
12HP	60,6	45,7	957-235466	953-235449 🛛
14HP	70.7	55,9	957-235467	-
24HP	121,5	106,7	957-235469	-
42HP	213,0	198,1	957-235470	-
84HP	426,3	411,5	957-236073*	-

 $\oplus$  = Denotes minimum order quantity, please contact our sales office. \* This item has no handles



Standard type - 3U



#### Order separately

Product	Page
Additional card mounting brackets	10
Screws, bushes and fixings	10
Slimline handles	11



# Unshielded standard front panels

# **TYPE C FRONT PANEL**

- Handles top and bottom for maximum component space
- Easier connector disengagement
- Typical layout for VME bus plug-in units

**Version 1** has anodised front and inner faces. The method of manufacture produces cut edges which will not be visible in normal use. Version 1 panels can be identified by their 957 prefix. Material grain is horizontal and the kit includes plastic retaining inserts as standard. These inserts can be replaced with a metal type.

**Version 2** has an anodised front face and a chromated, conductive inner face for grounding purposes. Supplied with metal retaining inserts as standard. Version 2 panels are prefixed with 953.

#### **BULK PACKING**

Subject to minimum quantities, we can supply front panel kits in bulk, offering savings in packaging and unpacking time. Please specify '**BULK PACK**' when ordering.

#### **Contents of kits**

Description	Qty.	Material	
Front panel	1	2,5mmg ALMg3 ½ hd	
Handles	2	Luranyl¤ 2452/1,black	
Ident labels	2	1,5mmg A1Mg3 ½ hd	
Fixinas			

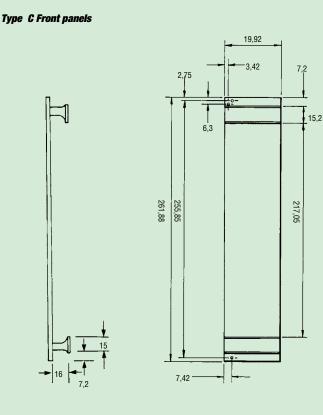
#### **Ordering information**

Description: Type C Front panels – version 1			
Height	Width	Туре	Order code
6U	4HP	Version 1	957-244797
00	8HP	Version 1	957-244798
90	4HP	Version 1	957-244799
90	8 HP	Version 1	957-244800

Description: Type C Fron	t panels –	version 2	
6U	4HP	Version 2	953-236016
00	8HP	Version 2	953-236022
9U	4HP	Version 2	953-236023







#### Order separately

Product	Page
Additional card mounting brackets	10
Screws, bushes and fixings	10
Slimline handles	11



### **4HP EJECTOR HANDLES AND FRONT PANELS**

These ejector handles provide mechanical assistance for removing PCBs with high extraction forces. The handle works by bearing on the front extrusion of IEC 60297-3 subracks.

#### **Features**

- Easy extraction of PCBs
- Normal KM6 front panel handle appearance
- Choice of plastic or metal card mounting brackets
- 3U, 6U and 9U x 4hp front panels available with facility for additional mounting bracket fixing

Version 1 has anodised front and inner faces. The method of manufacture produces cut edges which will not be visible in normal use. Version 1 panels can be identified by their 957 prefix. Material grain is horizontal and the kit includes plastic retaining inserts as standard. These inserts can be replaced with a metal type.

#### BULK PACKING

Subject to minimum quantities, we can supply front panel kits in bulk, offering savings in packaging and unpacking time. Please specify '**BULK PACK**' when ordering.

# **Contents of kits – Ejector handles**

Description	Qty	Material
Pairs of handles	10	Makrolon 9425 glass filled
(UL94-VO material)		
Mounting brackets	20	Luranylo 2452/1 or die cast
Hinge pins	20	Brass
Fixings		
Assembly instructions		

#### **Contents of kits – Front panels**

Front panel	1	2,4mm ALMg3 1/2 hd	
Handle idents	2	1,5mm ALMg3 ½ hd	
Fixinas			

#### **Ordering information**

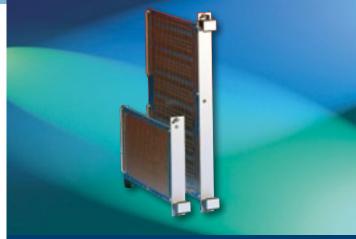
Description	Order code	
Eiector handle kit	Plastic brackets	173-202288
Ejector nanule kit	Metal brackets	173-202287
3U x 4 HP front panel kit	Version 1	957-244801
6U x 4 HP front panel kit	Version 1	957-244802
9U x 4 HP front panel kit	Version 1	957-244803
4 HP aluminium ident labels	174-39403	

#### **3U VERSIONS**

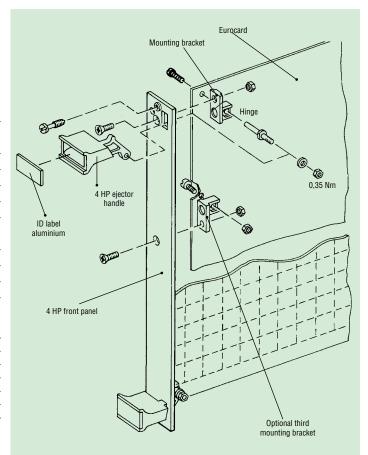
Typically 3U panels have an ejector at the bottom only. These kits contain only 10 bottom handles and associated parts.

# **ORDERING INFORMATION**

Description		Order code
3U Ejector handle kit	Plastic brackets	173-283274
SU EJECIUI HAHUIE KII	Metal brackets	173-283071



4HP Ejector handles and front panels



#### Order separately

Product	Page
Additional card mounting brackets	10
Screws, bushes and fixings	10



# Unshielded standard front panels

# 25 WAY D-SUB CONNECTOR MOUNTING

This range of panels will fit KM6-II and similar IEC60297-3 subracks. Each panel is supplied with fixing screws, inserts and a sight hole. Blanking plates can be used to fill unused apertures.

### FEATURES

- IEC60297-3 compatible
- Various configurations
- Blanking plate available

**TYPE 1** panels are anodised and supplied with plastic bushes, fixing screws, handles and idents.

**TYPE 2** panels have an anodised front face and chromated rear face for grounding purposes. They are supplied with metal bushes and fixing screws only. Handles and idents should be ordered seperately.

## **BULK PACKING**

Subject to minimum quantities, we can supply front panel kits in bulk, offering savings in packaging and unpacking time. Please specify '**BULK PACK**' when ordering.

# ORDERING INFORMATION

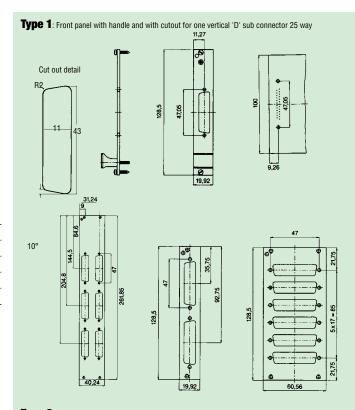
Description: D Sub connector mounting

Height	Width	Туре	Cut-outs	Order code
	4HP	Type 1 front panel	1	953-236501
3U	4HP	Type 2 front panel	2	953-236503
	12HP	Type 2 front panel	6	953-236504
6U	8HP	Type 2 front panel	6	953-236505
55mm	13mm	Blanking plate		174-10013 🕲

**(D)** = Denotes minimum order quantity, please contact our sales office.



25 Way D-sub connector mounting



Type 2: Front panels less handles with multiple cutouts for 25 way 'D' sub connector 25 way

## FRONT PANEL FRAME

Supplied as a kit, either with or without front handles, this 84HP wide frame permits the mounting of 3U, IEC 60297-3 front panels in 19" rack applications. Typically this application appears in networking and machine tool situations where the panels are carrying connectors, keypads or controls only and a full subrack is not necessary.

## **CONTENTS OF KIT**

Item/Description	Qty.	Material/Finish
End plate angles	2	2,5mm Aluminium BS 1470 5251-H24 (NS4 H6),
		conductive clear chromate
Stub end plates	2	2mm Aluminium, alocrom 1000
Plain front extrusions	2	Aluminium alloy BS 1474 6063T6
Tapped strips	2	MS zinc passivate
Fixings		

## **ORDERING INFORMATION**

Description: Front panel frame						
Height	Width	Handles	Order code			
3U	84HP	No	950-261554			
		Yes	950-261553			



#### Order separately

Product	Page
Additional card mounting brackets	10
Screws, bushes and fixings	10



#### **CARD MOUNTING BRACKETS**

The normal PCB mounting brackets are for use where front panels are mounted into IEC/DIN subracks and caseframes that require the conventional 2,54mm gap between the rear of the front panel and the PCB. Available in two versions; moulded in Noryl or zinc die-cast. The die cast version is now tapped in both axes, making assembly easier and quicker.

#### Material

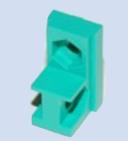
Plastic card mounting bracket:Luranyl 2452/1, GreenMetal card mounting bracket:Die cast Zinc

# **Contents of Kit**

2 or 10 x brackets 2 or 10 x M2.5 x 6 cheese head screws

# **Ordering information**

Description	Ordercode
Plastic brackets (pair)	173-12525
Metal brackets (pair)	173-12526
Plastic brackets (pack 10)	173-232669
Metal brackets (pack 10)	173-253258 or 173-44767



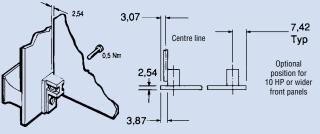


Card mounting bracket - plastic

Card mounting bracket - metal

Normal bracket

PLAN VIEW





A variety of front panel screws and bushes are available to suit the KM6 range of front panels and also for general use.

#### KM6 CAPTIVE SCREWS AND BUSHES - FOR KM6 PANELS

The KM6 captive screw is available in a standard slotted or knurled thumb screw version, and should only be used with the KM6 bush. It's tapered collar design expands the jaws of the bush when tightened so that when the metal bush is used, a conductive path is formed to the front panel. Supplied in packs of 100.

#### **Ordering information**

Description	Fig No.	Ordercode
M2.5 Front panel slotted screw	1	953-236510
M2.5 Front panel thumb screw	3	953-236512
M2.5 Front panel bush, plastic	2	953-236507
M2.5 Front panel bush, conductive	4	953-236506

#### STANDARD CAPTIVE SCREWS AND BUSHES - FOR GENERAL USE

The standard captive screw is available in a standard slotted version only and can be used in three ways; (1) With a plastic M2.5 bush, (2) with a plastic M2.5 collar (threaded hole required in panel) or (3) with a metal M2.5 threaded insert.

Supplied in packs of 100 (except insert, pack 10)

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# **Ordering information**

Description	Fig No.	Ordercode
M2.5 Front panel slotted screw	5	174-39374
M2.5 Front panel bush, plastic	7	174-39373
M2.5 plastic collar	6	174-39385
M2.5 metal threaded insert (pk10)	8	174-229770





Fig .1 - Captive slotted screw

Fig .2 - Plastic bush















Fig .5 - Captive slotted screw



Fig .7 - Plastic bush

Fig .8 - Metal threaded insert



N

2.10

# **KM6 Front Panel Accessories**

# FRONT PANEL HANDLES AND IDENTS

Handle and idents that are supplied in our standard front panel kits are available separately and can be used on any suitably drilled front panel. Separate idents make silk-screening company logos / product data easy. Supplied in packs of 10.

# Material / finish

Plastic handle: Handle Ident: Luranyl 2452/1, Black 1.5mm Aluminium, anodised

# **Ordering information**

Front panel width	Handle	Ident
From paner width	nallule	Iuein
3HP	174-39387	174-39402
4HP	174-39388	174-39403
5HP	174-39389	174-39404
6HP	174-39390	174-39405
7HP	174-39391	174-39406
8HP	174-39392	174-39407
9HP	174-39393	174-39408
10HP	174-39394	174-39409
12HP	174-39395	174-39410
14HP	174-39396	174-39411
21HP	174-39397	174-39412
24HP	174-39398	174-39413
42HP	174-39399	174-39414

## HANDLE FIXING HARDWARE

Description	Pack	Ordercode
M2.5 x 16 reduced head screw	100	174-63105
M2.5 shakeproof washer	100	27-1318
M2.5 hex nut	100	27-1319

# SLIMLINE EXTRUDED HANDLES

When suitably drilled, blank front panels can be fitted with this extruded aluminium handle. Alternatively, it can be used to replace the moulded plastic handles normally supplied with our front panels – also described above. They offer solvent resistance and also free up front panel component space. Supplied in packs of 10 with fixings.

Aluminium, anodised.

## Material / finish

Slimline extruded handle:

# **Ordering information**

-	
Front panel width	Handle
3HP	953-250838
4HP	953-250839
5HP	953-250840
6HP	953-250841
8HP	953-250842
10HP	953-250843
12HP	953-250844

# PCB POLARISING DEVICE MOUNTING BRACKET

This mounting bracket is designed to place the pcb in the normal IEC/DIN position as well as offering a polarising feature.

The device is in two parts (plug and socket), and can be fitted at the top or bottom of the pcb/front panel (or both). This item enables the user to code individual cards within a subrack or caseframe

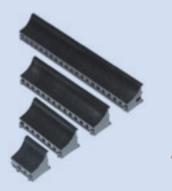
Note: Before the polarising device prevents final insertion, it is possible to partially engage the connector. It is thus not suitable for discriminating on powered up systems.

# **Contents of kits**

Contonity of Kity			
Description	Qty.	Material/Finish	
Top socket	1	2 plugs, Nylon 66 black	_
Bottom socket	1	4 polarising plugs, Nylon 66 black	
			_

# ORDERING INFORMATION

Description	Ordercode
Polarising Mounting Bracket	173-24169

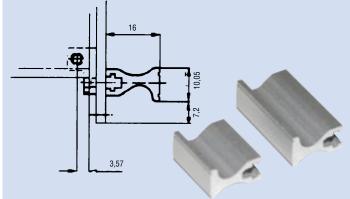


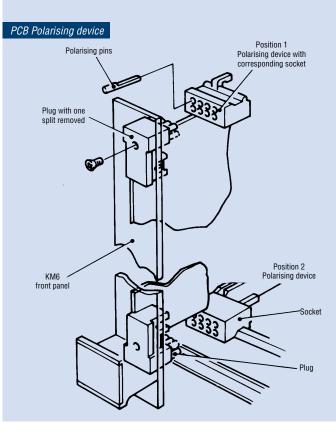


Handle

Indents

Slimline extruded handle





UK<sup>®</sup> Tel: +44 (0)2380-246900 sales@verotec.co.uk USA <sup>®</sup> Tel: 603.821.9921 sales@verotec.us



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# Standard plug-in-units – 2 Rail

# **2 RAIL PLUG-IN UNITS**

Designed for 111.8mm height guides, these standard 2 rail plug-in units are compatable with the KM6-II subrack range as well as the Diplomat caseframe.

# **Features**

- Maximum volume
- Alternative PCB positions

PCB and connector easily removed, no disassembly required

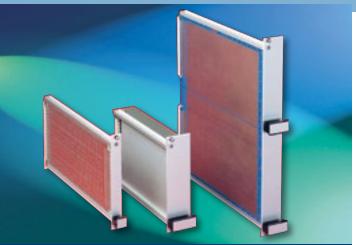
- 3HP to 9HP, 160mm or 220mm deep
- Standard front panel with horizontal grain and plastic insert
- Aluminium identification labels
- Easy and fast assembly
- Supplied packed flat
- No adjustment required

## **Contents of kits**

Description	Qty	Material/Finish
Front panel	1	2,5mm aluminium,
		BS 1470NS4 1/2H
		etch and clear anodise
Identification	3U x 1	1,5mm aluminium alloy
labels	6U x 2	BS 1470 NS4 1/2H
Handle	3U x 1	Luranyl¤ 2452/1
	6U x 2	
Guide rails	2	Aluminium alloy
		BS 1474 HE9 TF etch and
		clear anodise,
Connector/PCB	2	Mazak 3
mounting brackets	5	
All fixings		

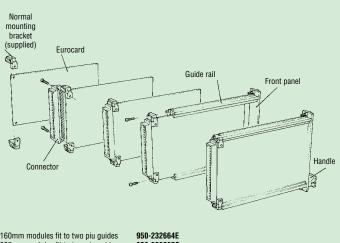
# **ORDERING INFORMATION**

		Order code	Order code
Height	Width	160mm deep	220mm deep
	3HP	957-236290	957-236307
	4HP	957-236294	957-236308
	5HP	957-236297	957-236309
3U	6HP	957-236298	957-236310
	7HP	957-236304	957-236311
	8HP	957-236305	957-236312
	9HP	957-236306	957-236313
	4HP	957-236315	957-236321
	5HP	957-236316	957-236322
6U	6HP	957-236317	957-236339
	7HP	957-236318	957-236340
	8HP	957-236319	957-236341



# KM6-II 2 rail, 111,8mm plug-in units

#### KM6-II - 2 Rail plug-in units assembly



160mm modules fit to two piu guides 220mm modules fit to two piu guides Guides are supplied in Pks of 10.

950-232665C

#### **ORDER SEPARATELY**

Product	Page
Left hand and right hand screens	16
Top and bottom screens	16
Alternative connector mounting brackets	13
Fixings	20

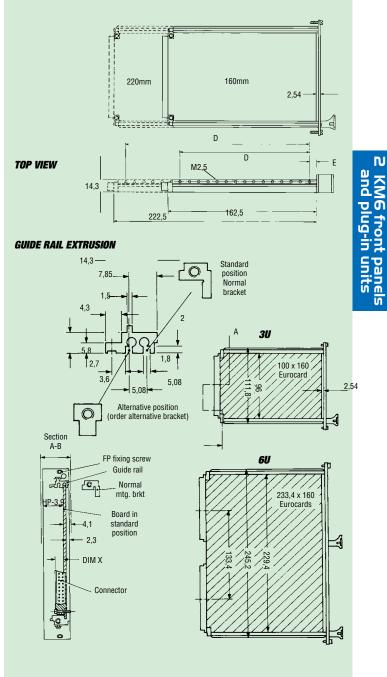




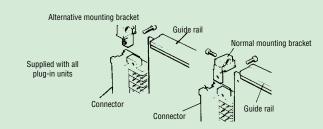
# Standard plug-in-units – 2 Rail

# DIMENSIONAL DETAILS

		Dim D			Dim E	
	142,24			7,6		
	203,2 7,15					
В	С	D	E	F	G	н
7,6	9,4	9,4	14,4	11,3	16,3	11,3
			142,24 203,2 B C D	142,24 203,2 B C D E	142,24 203,2 B C D E F	142,24 7,6   203,2 7,15   B C D E F G



# Alternative mounting brackets for connectors



#### **ALTERNATIVE MOUNTING BRACKETS FOR CONNECTORS**

When the alternative card position is employed (without screening) alternative mounting brackets for the connectors should be ordered. Normal mounting brackets are supplied with all 2 and 4 rail plug-in units. Additional normal mounting brackets are available in packs of 10.

# **CONTENTS OF KITS**

Description	Qty.	Material/Finish
Mounting brackets	10	Mazak 3
Fixings		

# **ORDERING INFORMATION**

Description	Qty.	Order code
Normal mounting brackets	10	174-13019
Alternative mounting brackets	10	174-13020





# Standard plug-in units – 4 Rail

#### 4 RAIL PLUG-IN UNIT

Designed for 111.8mm height guides, these standard 4 rail plug-in units are compatable with the KM6-II subrack range as well as the Diplomat caseframe.

#### **Features**

- Maximum volume
- Alternative PCB mounting positions
- PCB and connector easily removed, no disassembly required
- 10 HP to 42 HP, 160mm or 220mm deep
- Standard front panel with horizontal grain and plastic insert
- Aluminium identification labels
- Break-off tags for alternative connector position
- Easy and fast assembly
- Supplied packed flat
- Compatible with all KM6-II, KM6-EC, VEcase 700 and Diplomat subracks and enclosures

#### **Contents of kits**

Description	Qty.	Material/Finish
Front panel 1		2,5mm aluminium BS 1470NS4 1/2H
		etch and clear anodise
Handle and identification strips	3U x 1	Luranyl¤ 2452/1, black, 1,5mm
	6U x 2	aluminium alloy BS 1470 NS4 1/2H
Guide rails	4	Aluminium alloy BS 1474HE9 TF
		etch and clear anodise
Connector/pcb mounting bracke	ts 2	Mazak 3
Rear panel		1,5mm Aluminium alloy BS 1470 NS4 1/2H
All fixings		

Note: order separately; screens, side plates and base plates

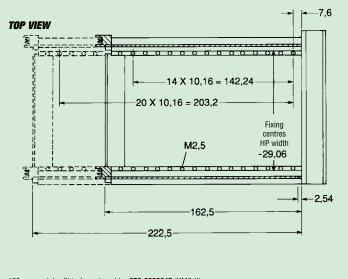
### **ORDERING INFORMATION**

Height	Width	Order code	Order code
		160mm deep	220mm deep
	10HP	957-236386	957-236399
	12HP	957-236387	957-236400
011	14HP	957-236388	957-236401
3U 21HP 24HP 42HP	21HP	957-236389	957-236402
	24HP	957-236390	957-236403
	42HP	957-236391	957-236404
	10HP	957-236393	957-236405
6U 12HP 24HP	957-236394	957-236406	
	14HP	957-236395	957-236407
	24HP	957-236397	957-236409
	42HP	957-236398	957-236410



DIMENSIONAL DETAILS

**6**111



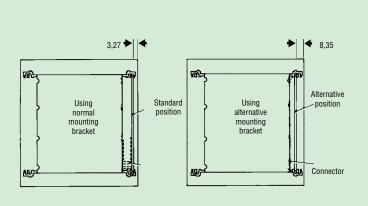
160mm modules fit to four piu guides **950-232664E** (KM6-II) 220mm modules fit to four piu guides **950-232665C** (KM6-II) Guides are supplied in Pks of 10.

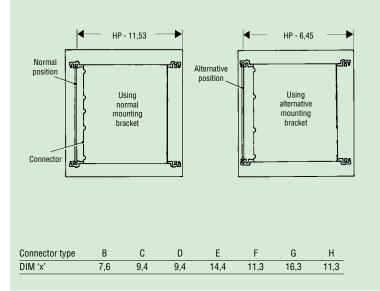
#### **ORDER SEPARATELY**

Product	Page
Left hand and right hand screens	16
Top and bottom screens	16
Alternative connector mounting brackets	15
Fixings	20











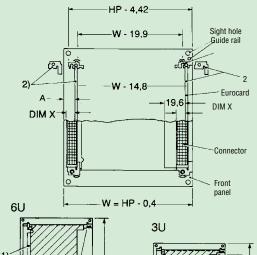
When the alternative card position is employed (without screening), alternative mounting brackets for the connectors should be ordered. Normal mounting brackets are supplied with all 2 and 4 rail plug-in units.

#### **Contents of kits**

Description	Qty.	Material/Finish
Mounting brackets	10	Mazak 3
Fixings		

# ORDERING INFORMATION

Description	Order code
Alternative mounting bracket	174-13020



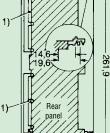
1)

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Rear

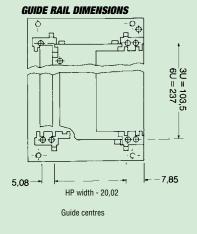
pane

Front panel



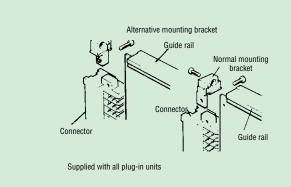
Front panel

1) Break off these tags when fitting connector on this side 2) Normal mounting bracket for normal card position. Order separately, alternative bracket, to move Eurocard 5,08mm to the right



128,5 94,5

#### Alternative mounting brackets for connectors





# Standard plug-in units — screens

# **LEFT HAND SIDE SCREENS**

These screens slot into the plug-in unit guide rail. The PCB is moved over to the next slot position, with an alternative connector/PCB mounting bracket utilised. These mounting brackets are supplied with each left hand screen kit.

# NORMAL RIGHT HAND SIDE SCREENS - 2 RAIL VERSION

These wrap around screens bolt to the guide rails and give full protection to the PCB mounted components.

# NORMAL RIGHT HAND SIDE SCREENS - 4 RAIL VERSIONS

These screens slot in the right hand guide rails and enclose the full area on the right hand side within the unit.

# ALTERNATIVE RIGHT HAND SIDE SCREENS - 2 RAIL

Similar to the standard but narrower to take into account the room necessary to plug the unit immediately to the left of a divider kit in a 6U subrack.

# ALTERNATIVE RIGHT HAND SIDE SCREENS - 4 RAIL

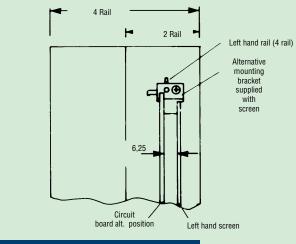
These are used instead of the standard screen when the unit is to be fitted immediately to the left of a divider kit in a 6U subrack.

# **TOP AND BOTTOM SCREENS - 4 RAIL**

Top and bottom screens give protection over the full length of the plug-in unit and are pierced for ventilation. Fixing is by four and six screws directly into pre-tapped holes in the guide rails.

#### **Contents of kits**

Description	Material/Finish
1 top, 1 bottom;	0,5mm PVC clad pre-coated steel
All fixings	





3U 2-RAIL PLUG-IN UNIT SCREENS - ORDERING INFORMATION (for 6U screens, please contact sales office)

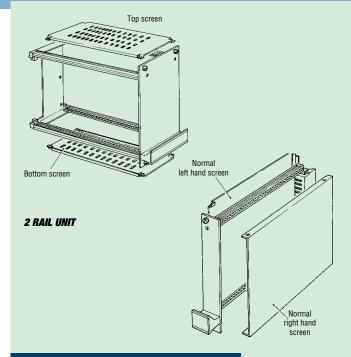
Width	Left hand screen		Standard right hand screens		Alternative right hand screens	
wiutii	160mm	220mm	160mm	220mm	160mm	220mm
3HP		174-12645				
4HP	174-13021		174-13023	174-12647	-	-
5HP	1/4-13021	174-12040	174-13024	-	174-13023	174-12647
6HP		_	174-13025	174-12648	174-13024	-

3U 4-RAIL PLUG-IN UNIT SCREENS - ORDERING INFORMATION (for 6U screens, please contact sales office)

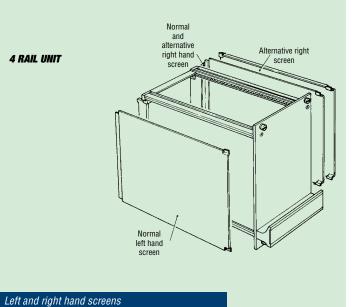
Width	Top & Botto	m Screens	Left hand screen		Standard right hand screens		Alternative right hand screens	
	160mm	220mm	160mm	220mm	160mm	220mm	160mm	220mm
7HP	-	-			-	-	174-13025	174-12648
8HP	-	-	174-13021 174-12645	174-13027	-	-	-	
9HP	-	-		-	-	174-13027	-	
10HP	174-12965	174-12639						
12HP	174-12966	-						
14HP	174-12967	-	174-13021	174-12645	174-13035	174-12649	174-13021	174-12645
21HP	174-12968	174-12640						
24HP	174-12969	-						



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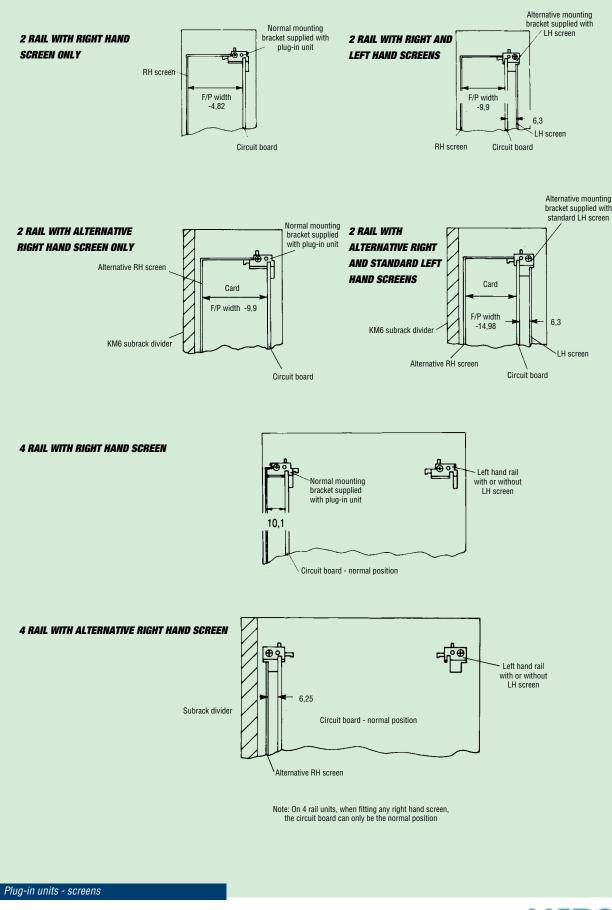


Top and bottom screens



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# **6U - COMPATIBLE SCREENS**



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Electronics Packaging

# Enhanced plug-in units – 2 Rail

#### 160MM AND 220MM DEPTH

Supplied in kit form, the KM6-II extruded plug-in unit offers strength and simple assembly.

#### **Features**

Z KM6 front panels

D UG-ID U

- Plug-in units with normal or high level screening
- 3U x 160mm or 3U x 220mm, various widths
- Electrical continuity between all components
- KM6-II modules with mechanical strength for heavy components
- Good thermal properties and electromagnetic shielding between neighbouring system components
- Front panels with anodised front face, chromated rear face
- Compatible with DIN 41494 / IEC 60297-3

Construction is based on a conductive extruded side plate offering new facilities. Right hand covers, with a rear cut-out for DIN 41612 connectors, slot into angled grooves in the extrusion and are retained positively at the rear of the module.

On high screening level versions, additional fixings are provided at the front and rear to maintain limited slot lengths. Metal inserts are provided for electrical continuity when fitting to the subrack. Features are provided in the extrusion for two x 160mm tapped strips offering facilities for mounting components.

Single Eurocard/connector assemblies can be attached with separate metal mounting brackets.

These modules mount to two PCB guides: 950-232662J (PK.10) for the 160mm deep module or 950-232663G (PK.10) for the 220mm deep version.

# **Contents of kit**

Description	Qty.	Material/Finish
Front panel	1	2,5mm Aluminium alloy, clear anodised
		front face, chromated rear, horizontal grain
Side extrusion	2	Aluminium alloy, unfinished
Top, side and rear covers	1	1mm galvanised steel
Handle	1	Luranyl 2452/1, black
Ident label	1	1,5mm aluminium, anodised
Fixings		
Assembly instructions		

The normal version has plastic inserts, the higher level version metal inserts.

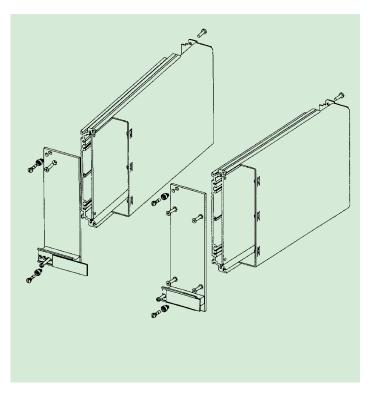
## **ORDERING INFORMATION**

Description: 2 Rail module - 160mm deep version			on Order	codes		
Height	Width	Front panel	PCB component	Normal	High level	
	HP	width mm	height max.	version	screening	
	6	30,08	12,6mm	951-263113	951-263117	
3U	7	35,16	17,7mm	951-263114	951-263118	
50	8	40,24	22,8mm	951-263115	951-263119	
	10	50,40	32,9mm	951-263116	951-263120	
Descripti	Description: 2 Rail module - 220mm deep version					
	6	30,08	12,6mm	951-263903	951-263906	
3U	8	40,24	22,8mm	951-263904	951-263907	
	10	50,40	32,9mm	951-263905	951-263908	

#### **ORDER SEPARATELY**

Metal front panel bush	pk 100	953-236506
PCB/connector mounting brackets	pk 5 pr.	951-263755
Tapped strip M2,5 x 160mm	pk 10	951-263756
Tapped strip M2,5, 42HP wide	1	950-202739





2.18 VEROTEC Electronics Packaging

# Enhanced plug-in units – 4 Rail

#### 160MM AND 220MM DEPTH

Supplied in kit form, the KM6-II extruded plug-in unit offers strength and simple assembly.

#### **Features**

- Plug-in units with normal or high level screening
- 3U x 160mm or 3U x 220mm, various widths
- Electrical continuity between all components
- KM6-II modules with mechanical strength for heavy components
- Good thermal properties and electromagnetic shielding between neighbouring system components
- Front panels with anodised front face, chromated rear face
- Compatible with DIN 41494 / IEC 60297-3

Construction is based on two conductive extruded side plates offering new facilities. Ventilated top and bottom covers slide into angled grooves in the extrusions. Rear covers, with a cut-out for DIN 41612 connectors, screw to the side extrusions.

On high screening level versions, additional fixings are provided at the front and rear to maintain limited slot lengths. Metal inserts are provided for electrical continuity when fitting to the subrack.

Features are provided in the extrusion for two x 160mm tapped strips offering facilities for mounting components. Single Eurocard/connector assemblies can be attached with separate metal mounting brackets.

These modules mount to four PCB guides: 950-232662J (PK.10) for the 160mm deep module or 950-232663G (PK.10) for the 220mm deep version.

## **Contents of kit**

Description	Qty.	Material/Finish
Front panel	1	2,5mm Aluminium alloy, clear anodised
		front face, chromated rear, horizontal grain
Side extrusion	2	Aluminium alloy, unfinished
Top,bottom and rear covers	1	1mm galvanised steel
Handle	1	Luranyl 2452/1, black
Ident label	1	1,5mm aluminium, anodised
Fixings		
Assembly instructions		

The normal version has plastic inserts, the higher level version metal inserts.

## **ORDERING INFORMATION**

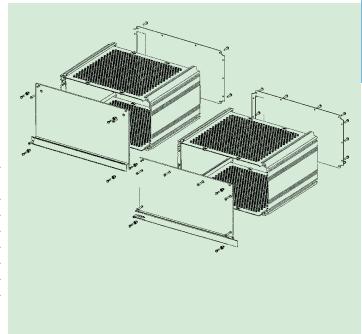
Descri	ption: 4 F	Rail module - 1	60mm deep version	Order	codes
Height	Width	Front panel	PCB component	Normal	High level
	HP	width mm	height max.	version	screening
	12	60,56	39,2mm	951-263121	951-263126
	14	70,72	49,3mm	951-263122	951-263127
3U	21	106,28	84,9mm	951-263123	951-263128
	24	121,52	100,1mm	951-263124	951-263129
	42	212,96	191,6mm	951-263125	951-263130
Descri	ption: 4 F	Rail module - 2	20mm deep version		
	12	60,56	39,2mm	951-263909	951-263913
011	14	70,72	49,3mm	951-263910	951-263914
3U	21	106,28	84,9mm	951-263911	951-263915
	24	121,52	100,1mm	951-263912	951-263916

#### **ORDER SEPARATELY**

Metal front panel bush	pk 100	953-236506
PCB/connector mounting brackets	pk 5 pr.	951-263755
Tapped strip M2,5 x 160mm	pk 10	951-263756
Tapped strip M2,5, 42HP wide	1	950-202739



KM6-II Plug-in units (4 rail)



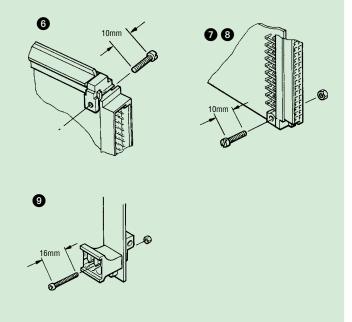


# Plug-in unit accessories

### PLUG-IN UNIT AND FRONT PANEL FIXINGS

# **ORDERING INFORMATION**

Key Function	Туре	Qty.	Order code
Connector to mounting block	M2,5 x 10mm	100	41-20505
Connector to PCB	M2,5 x 10mm	100	41-20505
Nut for above	M2,5	100	27-1319
Handle to front panel	M2,5 x 16	100	174-63105



# **MODULE GUIDE RAILS**

Available to purchase seperatly are the module guide rals used on, the standard 2-rail and 4-rail plug-in units. Supplied singly in 160mm or 220mm lenghts.

# MATERIAL/FINISH

Aluminium extrusion.

# **ORDERING INFORMATION**

Description	Ordercode
160mm	174-39378
220mm	174-39377



160mm/220mm Module Guide Rails



# KM6 Shielded Front Panels

#### **BLANKING FRONT PANELS**

These panels can be used to fill unused slots or where no handle is necessary. The versions with pre-location pin interface with a pierced strip in the front extrusion to prevent sideways movement due to spring pressure.

- Latest industry standard front panel geometry
- Stainless steel fingers
- Clear chromate finish or with polyester overlays
- Full custom service available
- With or without pre-location pin

Screws and retaining inserts (metal or plastic) should be ordered separately - supplied in packs of 100

# **Contents of kit**

Description	Qty.	Material/Finish
Front panel	1	Aluminium extrusion ,Clear chromate
EMC finger strip (fitted)	1	Stainless steel
Overlay (if fitted)	1	0,2mm polyester Light grey

# **ORDERING INFORMATION**

Without pr	e-location pin		
Nominal	Nominal	Chromate finish	With overlay
Height	Width	Order Code	Order Code
	4hp	951-263991	951-150000
	5hp	951-263993	951-150001
3U	6hp	951-263995	951-150002
50	8hp	951-263997	951-150003
	10hp	951-263999	951-150004
	12hp	951-264001	951-150005
	4HP	951-264003	951-150006
	5HP	951-264005	951-150007
6U	6HP	951-264007	951-150008
00	8HP	951-264009	951-150009
	10HP	951-264011	951-150010
	12HP	951-264013	951-150011
9U	4hp	951-263974	951-150045

# With pre-location pin

3U	4HP	951-150012	951-150019
	5HP	951-150013	951-150020
	6HP	951-150014	951-150021
50	8HP	951-150062	951-150065
	10HP	951-150063	951-150066
	12HP	951-150064	951-150067
	4HP	951-150015	951-150022
	5HP	951-150016	951-150023
6U	6HP	951-150017	951-150024
00	8HP	951-150068	951-150071
	10HP	951-150069	951-150072
	12HP	951-150070	951-150073
9U	4HP	951-150018	951-150074

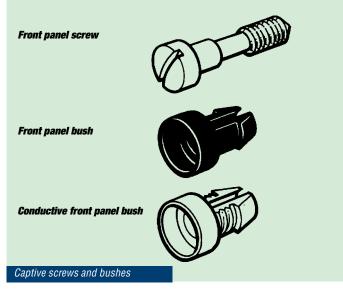
# FRONT PANEL FASTENINGS: CAPTIVE SCREWS AND BUSHES

#### **Ordering information**

Description	Qty	Order code
Front panel screws	100	953-236510
Front panel to subrack, knurled thumb screw M2,5 x 11	100	953-236512
Front panel bush, plastic	100	953-236507
Front panel bush, conductive	100	953-236506



KM6-RF Blanking front panels



UK<sup>®</sup> Tel: +44 (0)2380-246900 sales@verotec.co.uk USA <sup>®</sup> Tel: 603.821.9921 sales@verotec.us



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# **KM6 Shielded Front Panels**

# FIXED HANDLES

Providing backwards compatibility with existing front panels or where the use of injector/ extractor handles is not necessary or desirable.

- Latest industry standard front panel geometry
- Stainless steel fingers
- Clear chromate finish or with polyester overlays
- Full custom service available

The channel section provides good mechanical strength. The inserts in these kits are metal for maximum conductivity. Up to 8HP wide, panels have two fixing screws, 10 and 12HP have four.

We offer a comprehensive customising service in front panels and overlays.

#### **Contents of kit**

Description	Qty	Material/Finish
1 x front panel	1	Al extrusion, Clear chromate
1 x overlay (where fitted)	1	0,2mm polyester, Light grey
		RAL7035
1 x EMC finger strip	1	Stainless steel
Handles	1 on 3U, 2 on 6U	Luranyl 2452/1 or equivalent
		Black
Handle ident	1 on 3U, 2 on 6U	Al alloy 1,5mm , Clear
		anodised
		or 1,25mm (with overlay)

# Fixings and assembly instructions

#### **ORDERING INFORMATION**

Nominal dimensions		Order Code	Order Code
Height	Width	Chromate finish	With overlay
	4HP	951-263098	951-263199
	5HP	951-263102	951-263200
011	6HP	951-263104	951-263201
3U	8HP	951-263108	951-263202
	10HP	951-263794	951-263796
	12HP	951-263110	951-263203
	4HP	951-263099	951-263219
	5HP	951-263103	951-263220
6U	6HP	951-263105	951-263221
00	8HP	951-263109	951-263222
	10HP	951-263795	951-263797
	12HP	951-263111	951-263223



KM6-RF Front Panels - fixed handles

# EJECTOR HANDLES

For use in situations where a high level of screening is required these extruded front panels are supplied complete with stainless steel fingers to make contact with adjacent panels and with the KM6-RF mounting angles.

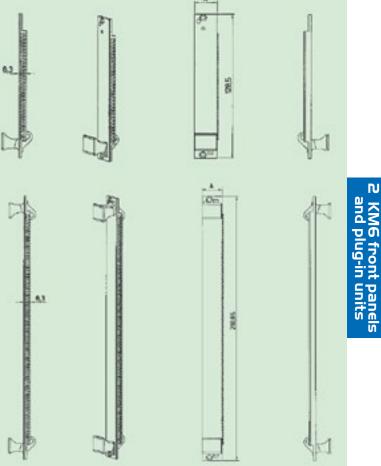
- Good mechanical strength and high level of electromagnetic screening.
- Ejector handle provides assistance in removal of plug-in units with high retention force connectors
- Latest geometry to IEEE1101.10 minimises intrusion into the solder area of Eurocards
- Compatible with all KM6-RF and IEC 297-3 subrack front extrusions
- Available with chromate finish front face or with polyester overlay in RAL 7035 light grey

This range of extruded front panels meets the geometry associated with the latest mechanical standard, IEEE1101.10, having an overall depth of 6,3mm. This minimises the interference of the left side with the solder side of Eurocards. The stainless steel finger strip which is fitted to the right side interacts with neighbouring panels that have a similar geometry. At the subrack interface, it is necessary to have matching features in order to maintain the EMC performance across the front.

The kit is supplied complete with die cast card mounting brackets and metal front panel screw retaining bushes for maximum conductivity to the subrack.

#### Contents of kit

Description	Qty	Material /Finish
Extruded front panel	1	Aluminium, all chromate finish or with
		front overlay, vertical grain
Set contact fingers	1	Stainless steel
Overlay (optional)	1	0,2mm polyester, RAL 7035 light grey
Handles:	1 on 3U, 2 on 6U	Makrolon 9425 black
Handle ident labels:	1 per handle	1,5mm aluminium, anodised or
		1,25mm with overlay
Card mounting brackets	2	Zinc die cast
Retaining screws M2,5	2	Steel, chromed
Bushes	2	Metal, chromed
All fixings		



KM6-RF EMC front panels - with ejector handles

#### Ordering information

			RF front panel	RF front panel
Nominal	Nominal	Width A	chromate finish	with overlay
Height	Width	in mm	Order code	Order code
	4HP	19,92	951-263100	951-263750
3U	6HP	30,08	951-263106	951-263751
6U	4HP	19,92	951-263101	951-263771
	6HP	30,08	951-263107	951-263772



# **KM6 Shielded Front Panels**

#### IEEE 1101.10/11 INJECTOR / EJECTOR PANELS

These front panels should be ordered in two parts; firstly the panel and secondly the handle. The panels are manufactured from extruded aluminium and are fitted with a stainless steel EMC finger strip. They are available with either a clear chromated finish or a light grey overlay. The inject / eject handles are IEEE 1101.10/11 compliant and available with or without extrusion location pin and with or without ESD / pre-location pin. There is also a choice of black or light grey colours.

# **Contents of kit**

Description	Qty.	Material/Finish
Front panel	1	Aluminium extrusion ,Clear chromate
EMC finger strip (fitted)	1	Stainless steel
Overlay (if fitted)	1	0,2mm polyester Light grey

#### 

UKDEKI	NG INFUKMAI	IUN	
Height x	Width	Clear chromate	Polyester overlay
		finish	RAL 7035
	4HP	951-263840	951-263852
	5HP	951-263841	951-263853
	6HP	951-263842	951-263854
3U	8HP	951-263843	951-263855
	10HP	951-263844	951-263856
	12HP	951-263845	951-263857
	4HP	951-263846	951-263858
	5HP	951-263847	951-263859
	6HP	951-263848	951-263860
6U	8HP	951-263849	951-263861
	10HP	951-263850	951-263862
	12HP	951-263851	951-263863

# IEEE 1101.10/11 INJECTOR/EXTRACTOR HANDLES **Features**

- IEEE1101.10 and .11 compliant
- Various configurations for coding, pre-location and ESD protection available Ident location area
- Ganging option for use on multiple card plug-in units
- Push fit onto panel

This handle has the following possibilities:

With or without a front extrusion location pin, to maintain accurate location against the sideways pressure of EMC fingers.

With or without the ESD/ location pin. The ESD/location pin determines its position in the frame (ie top or bottom)

In black or light grey RAL7035

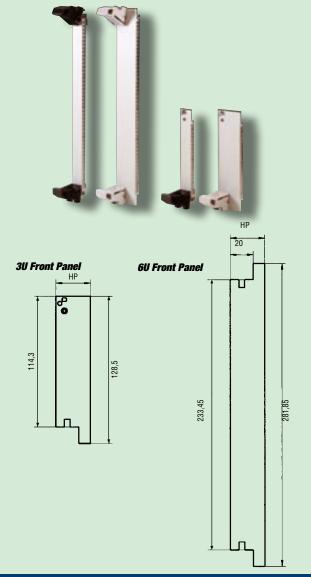
#### Coding keys should be ordered separately **Contents of kit**

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Description	Qty.	Material/Finish
Injector/ extractor (pre-assembled)		
Handle moulding	1	Glass filled polycarbonate UL94-VO,
		Black or light grey RAL 7035
Die cast bracket	1	Zinc Bright nickel plate
Return spring	1	0,3mm stainless steel
ESD pin (optional)	1	Stainless steel

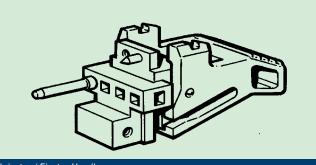
#### **ORDERING INFORMATION**

Electronics Packaging

Colour	ESD/location	Extrusion pre-	
	Pin	location pin	Order Code
Black, top C.B.A.	Yes	Yes	959-278296
Black, bottom F.E.D.	Yes	Yes	959-278295
Black, top and bottom	No	Yes	959-277048
Black, top C.B.A.	Yes	No	959-278298
Black, bottom F.E.D.	Yes	No	959-278297
Black, top and bottom	No	No	959-277053
Light grey, top C.B.A.	Yes	Yes	959-278300
Light grey, bottom F.E.D.	Yes	Yes	959-278299
Light grey, top and bottom	No	Yes	959-277049
Light grey, top C.B.A.	Yes	No	959-278302
Light grey, bottom F.E.D.	Yes	No	959-278301
Light grey, top and bottom	No	No	959-277060





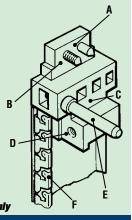


Injector / Ejector Handles

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This table is intended to help you select the most suitable combination of handles and front panels.

ĸey	
A	Pre-location pin
В	Captive screw
C	Coding peg locations
D	Card mounting
E	ESD/alignment pin
F	Front panel with EMC fingers



Stylised picture only Shielded front panel and handle options

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## SHIELDED FRONT PANELS ACCESSORIES

### FRONT PANEL CAPTIVE SCREWS AND BUSHES

For panel only situation where the width of the panel or type of panel requires additional fixing (Injector/extractors are supplied with screws) and complete panel kits.

- Positive retention
- Plastic or metal bushes

#### **Contents of kit**

Description

Material/Finish
inatorial, i intori

Front panel fixings: Screws M2,5 x 11		
Front panel fixings: Bushes	Plastic, black	
Front panel fixings: Bushes	Metal	

#### **ORDERING INFORMATION**

Description	Qty.	Order code
Front panel screws	pk.100	953-236510
Front panel bush, plastic	pk.100	953-236507
Front panel bush, conductive	pk.100	953-236506

# EMC SEALS - VERTICAL FINGER STRIP

This version clips onto IEEE1101.10 front panels , rack mounting angles or rear closing panels, providing electrical contact to neighbouring components. Select by nominal panel height.

#### **Contents of kit**

Description	Qty	Material/Finish
Vertical finger strip	10	Stainless steel

# **ORDERING INFORMATION**

Description	Qty.	Order code
Vertical seal for 3U	pk.10	959-266523
Vertical seal for 6U	pk.10	959-266524

#### NORMAL PCB MOUNTING BRACKETS

The normal PCB mounting brackets are for use where front panels are mounted into IEC/DIN subracks and caseframes that require the conventional 2,54mm gap between the rear of the front panel and the PCB.

Available in two versions; moulded in Noryl or zinc die-cast. The die cast version is now tapped in both axes, making assembly easier and quicker.

# **Contents of kits**

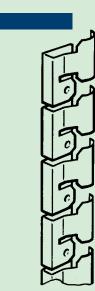
Description	Qty.	Material
Normal bracket	10	Luranyl¤ 2452/1, green or die cast zinc

#### **ORDERING INFORMATION**

Description	Qty	Order code
Normal brackets (plastic) and fixings	10	173-232669
Normal brackets (metal) and fixings	10	173-253258

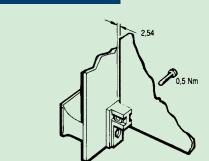
#### Captive screws and bushes



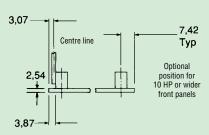


Normal bracket

Vertical finger strip



PLAN VIEW



Note: Plastics are adversely affected by solvents and care should be taken to avoid contamination of plastic brackets.



# VXI MODULE

#### Features

- Normal and light duty
- Single and double width
- C and D size
- Easy access

In support of the VXIbus, Verotec offer screened modules in two standard forms.

# NORMAL DUTY

This module has a relatively high screening capability, and is available in single and double widths, 'C' and 'D' sizes.

The double width version moves the circuit board to the right by one slot. This facility is likely to be needed where the skyline on the wiring side is greater than normal - when using wire wrapping assembly, or where additional components are required to be fitted on that side.

The module consists of a channel section front panel, incorporating ejector handles and card mounting brackets, ventilated left and right covers and EMC sealing. Connector screening is incorporated in the side covers. The Eurocard sized PCB provides the guide rail facility for the module as required in the specification. The construction of the side covers is such that access to the PCB can be simply gained by the removal of four screws.

In order to maintain electrical continuity between the metal side covers it is necessary to incorporate a row of plated through holes along the upper and lower edges of the PCB under the area covered by the RFI sealing strip. The spacing of these holes will obviously affect the degree of screening obtained from the module. In addition, four holes are needed to permit the passage of the fixing screws through the board (drilling details as shown). Continuity between the covers and the front panel is maintained by the incorporation of beryllium copper fingers. More fingers are used to maintain contact between the module and the backplane motherboard ground plane, and between neighbouring modules.

All metal components are conductively finished and the front panel has metal inserts to ensure good electrical contact between the module and the subrack.

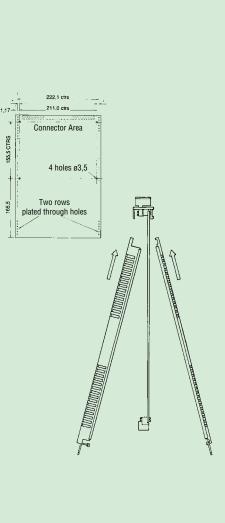
The PCB is fitted to the front panel via metal brackets as standard, although plastic brackets are available if they are required.

**LIGHT DUTY** Also in single 'C' size, the light duty module can be provided, without any EMC seals, offering a lower cost solution where EMC screening is con sid ered less of a problem. This unit has our two-part front panel and can be up grad ed by the addition of seals as needed. Connector Area 4 holes ø3,5 Two rows plated through holes.

#### **CONNECTOR SHROUD**

A connector shroud is available, in beryllium copper, that will enhance the screening performance when it is fitted to the fixed connector on the backplane.







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Z KMG front panels and plug-in units

# VXI front panels and modules

# **Contents of kits**

Description	Material/Finish	
Front panel-normal duty	Aluminium extrusion BS1474HE9TF,	
	finish; conductive	
Front panel - light duty	Facia 1,2 aluminium alloy BS1470	
NS41/2H Etched and anodised inner	1,2 aluminium alloy BS 1470 NS4 1/2H	
conductive finish		
Side panels	0,9mm zintec steel, zinc and	
	clear passivate	

# **ORDERING INFORMATION**

Description	Order code
'C' Size single - Normal duty module	207-203543
'C' Size double - Normal duty module	207-203544
'D' Size single - Normal duty module	207-222524
'C' Size single - Light duty module	207-222002
Beryllium copper fingers (strip 84)	930-238243
Channel section sealing strip (1 metre)	174-43905
Connector shroud	207-203611

# Typical shielding performance - normal duty modules

These performance figures were obtained by testing a representative sample from production batches. The tests carried out were in accordance with MIL-STD-285, modified where necessary due to the nature of the module. The figures are given as a guideline. Any additions or modifications will have an effect upon the shielding performance and it is, therefore, essential that these units are retested once the final unit is complete.

Performance figures were obtained reading from the right hand (component) side of the module. The figures stated were obtained from our in-house test facility.

# VXI COMPATIBLE FRONT PANEL KITS

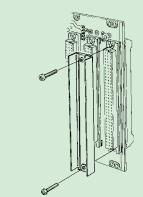
These panels are available separately from the module for situations where EMC screening of the individual pcb is not required, but it is necessary to maintain the overall subrack's RFI screen. Available in the same variants as the VXI modules, the kits include ejector handles, mounting hardware, fixings and EMC fixings.

#### Ordering information

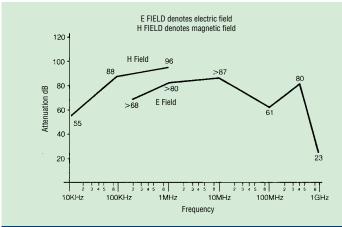
Description	Order code
6U x 6 HP Normal duty	207-227109
6U x 12 HP Normal duty	207-227110 👁
9U x 6 HP Normal duty	207-227111 👁
6U x 6 HP Light duty	207-227113 🚳

**(D)** = Denotes minimum order quantity, please contact our sales office.

For details on VXI backplanes and systems, please refer to the Backplanes & Systems brochure / section."



# VXI Connector Shroud



# VXI module shielding performance





VXI Microrack Development System

2 KM6 front panels and plug-in units





