

KRONE MODULE – CAT5 – MODEL TMK5-10

SPECIFICATIONS

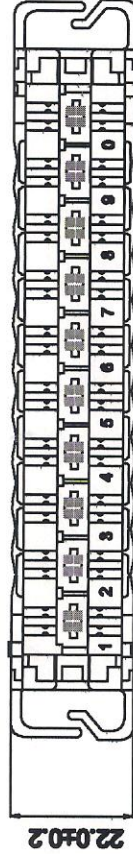
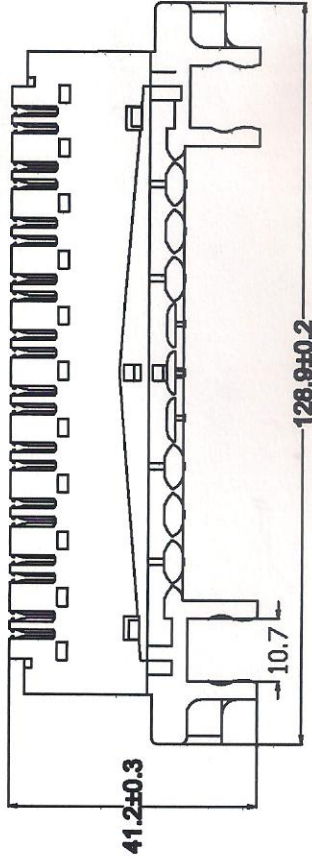
This 10-pair disconnection module is designed for setting up unshielded distribution fields for 4-wire and S-wire cable. It satisfies Category 5 in accordance with EN 50173/15011801.

Connectable wires:

Conductor diameter 0.4-0.65mm  
Outer diameter 0.7-1.4mm

Designed for universal use with:

Profile rods (9Smm distance)  
Back-mount frame 2/10



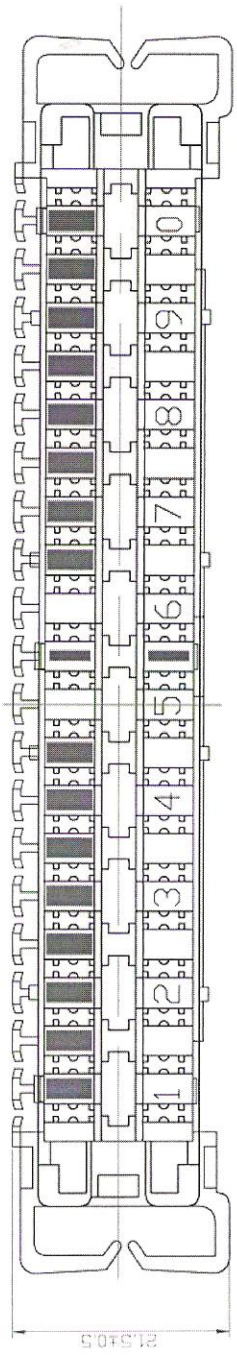
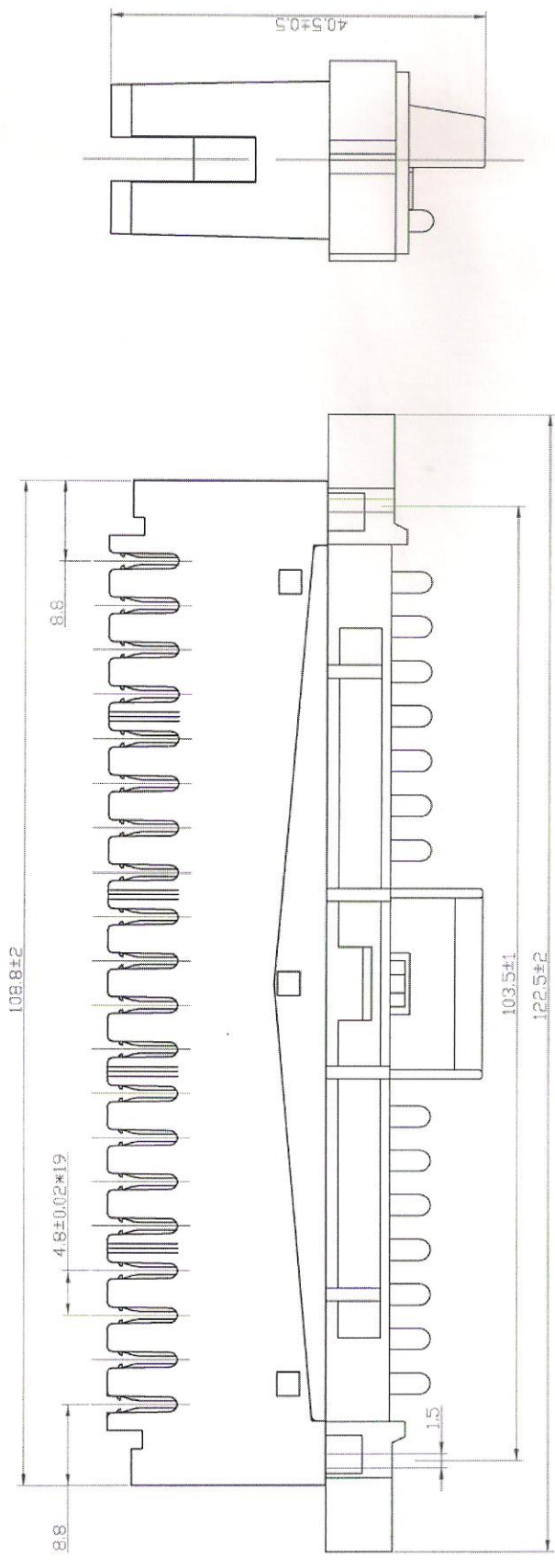
DRAWING : GT

DESCRIPTION: HIGHBAND 10 P DISCONNECTION MODULE

DATE	03/015	SCALE	1:1	PART NO:	TMK5-10
SIZE	M	DRAWN	WADE		
UNIT	mm	VERIFY	Y1W		



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**Key Specifications/Special Features**

1. Environment condition: -5-40 degree Celsius ;  
Relative humidity <85% (+30 degree Celsius);  
Atmospheric pressure: 70-106KPa ;
2. Pulling-out force: phosphorus bronze and silver plating (200 micron),  
pulling-out force not less than 25N ;
3. The performance of anti-burn: PBT (UL94V-0) ,  
Combustibility achieved GB/T 5169.7-1985 standard ;
4. Specification: 10 pairs
5. Type: every specification has connection or disconnection types
6. Life: durability 200 cycles
7. Suitable diameter: 0.4-0.6mm(metal).

SIGNATURE		DOCUMENT	SIGNATURE	DATE	10 Pairs clamp module			FT2-01	
DEVELOPER	DESIGNER	SECTOR	NORMALIZER		DRAWING MARK SYMBOL	QUANTITY	WEIGHT	SCALE	
PROOFREADER	ASSESSOR	TECHNOLOGIST	RATIFIER	DATE				2:1	
					PAGE NUMBER OF ALL		PAGE HEADER		

ENREGISTER OF BORROW  
 TRACER  
 PROOFREADER  
 SERIAL NUMBER OF OLD BASE MAP  
 SERIAL NUMBER OF BASE MAP  
 SIGNATURE  
 DATE

## KRONE FT2-01 LSA-PLUS DISCONNECTION MODULE

### The KRONE LSA-PLUS® quick connect system

The KRONE LSA-PLUS contacts always function according to the same basic principle irrespective of the type of module used.

Using the LSA-PLUS insertion tool, the plastic-insulated copper or jumper wires (4) are pressed into the contact slot (2) between the contact jaws (3); these being arranged at a 45° angle to the axis of the wire. The contact jaws open in an axial direction while at the same time twisting, cutting through the insulation of the wires and notching the conductor at obliquely opposite points.

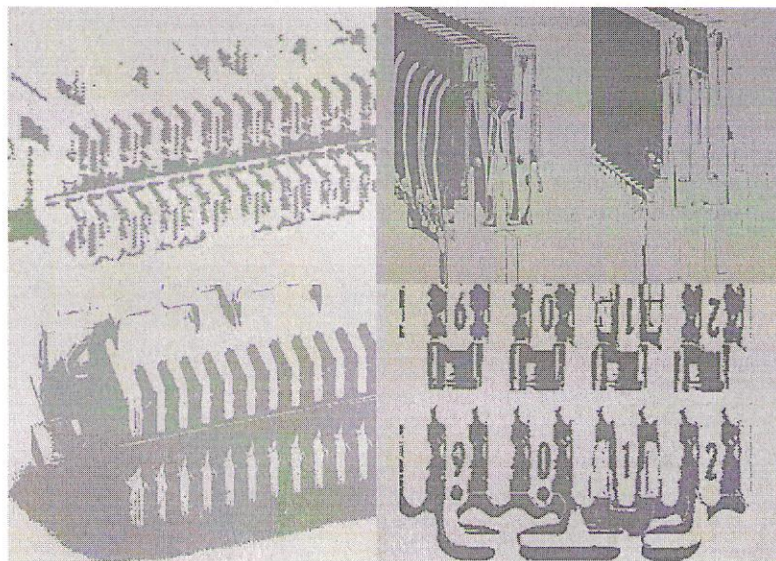
The twisting of the contacts with the constant torsion and return force pressures (5, 6) of the contact jaws create two durable, gas-tight contact surfaces.

The plastic clamping ribs (1), which are molded into the guide slot of the modules, provide additional protection of the contact points against shock and tensile forces. The insulation and conductor are firmly gripped by these plastic Clamping ribs preventing any movement of the connection in the contact area.

A correct connection is signaled by an audible "click" from the insertion tool.

As part of the same action, after connection, the LSA-PLUS insertion tool trims the wire to the correct length.

If the wire has to be removed, this is carried out simply using the retractable extraction hook on the LSA-PLUS insertion tool, i.e. by pulling the wire in the opposite direction to termination and re-connecting it in the new position.



## TECHNICAL DATA

### KRONE WIRING MODULES

#### INTRODUCTION

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The Krone LSA-Plus connection system is a reliable and cost effective technique for installation of communications, broadcast and data wiring and has several advantages over solder tag methods, including significant time and maintenance benefits.

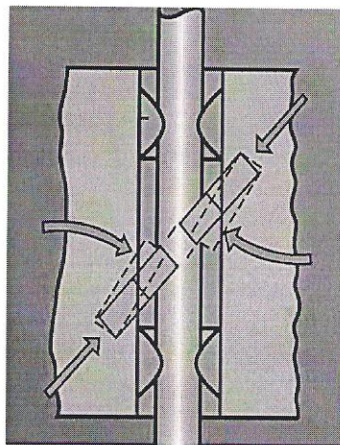
Krone offers a comprehensive range of connections and wiring system, based on a standard 10 pair (unscreened) termination module and a size compatible 6 pair + screen module. There is a complementary range of accessories for testing, alternative equipment termination, cable distribution and jump ring.

Krone uses an insulation displacement connection which totally eliminates the need to strip, solder or screw connect wires. Connections are made using the Krone inserter tool on a slot in the module. The slot contains wire clamping ribs and two flexible metal contact arms at 45 degrees. These cut the wire insulation and into the conductor, maintaining contact with a spring force. A gas-tight seal is formed between the conductor and the contact. The inserter tool performs the process with the correct force and also cuts the excess wire off after termination with the same action. Krone connections conform to all the standards for contact resistance, ageing, and durability including British Telecom's D2920 specification. The Krone technique can be learned in minutes by anyone, engineer or otherwise, and can cut installation time by up to 90%. Changes in wiring can be accommodated easily and re-termination is quick and neat.

A Krone module consists of two rows of contacts, the upper row for permanent connection, the lower row for jumper wires. Several types of module are available in two basic forms - connection and disconnection. Connection modules have a permanent link between the equipment and jumper sides, allowing 'listen' access for test probes and other accessories. The disconnection module has a spring contact connection between

#### KRONE LSA-PLUS Contact Technique

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● KRONE

KRONE's 3 point method of termination gives durable quality connections.

Insulation clamping ribs hold the wire firmly in position and isolate the contact area from vibration And other forms of mechanical stress.

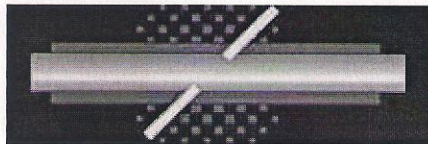
2. Flexible nickel plated contact tags, arranged at 45OC angles across axis of the wire, make a solid gas-tight connection.

3. Constant axial and torsional restoring forces, Created by the unique contact and plastic Housing, maintain a durable connection

### **EFFECTS OF KRONE CONTACT ON WIRE**

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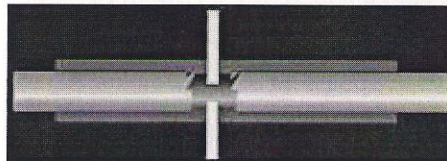
Positing contacts at 45OC angle leaves more wire between contact points and provides a more reliable, stress-resistant connection.



### **EFFECTS OF OTHER CONTACT ON WIRE**

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Positing contacts at a 90OC angle produces a point of weakness subject to possible breakage.



- L** No solder
- S** No use of screws
- A** No insulation removal
- P** Cost effective
- L** Easy to use
- U** Universal application
- S** Secure and fast

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## LSA-PLUS

Full disconnection module for jointing up to 10 pairs  
 Suitable for solid wires (with one wire) diameter 0.35 to 0.9mm with overall diameter 0.68 to 1.5mm  
 Suitable for solid wires (with two wires) diameter 0.35 to 0.9mm  
 Suitable for stranded wires diameter 7 x 0.12 to 0.32mm with overall diameter 0.7 to 1.6mm  
 Contact Material: Special Brass, Silver Plated 0.5um  
 Disconnection module provides look both ways test facility without the need to disconnect.  
 Industry standard for 10pair internal IDC connector.  
 Recommended minimum enclosure IP rating of IP54.

Krone LSA-PLUS Series 2 10pair with screw terminals:  
 CM-IDC-K10-SC (Krone 10-PR IDC with Screw Terminals, up to 2mm CSA)

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## FEATURES

- Based on genuine KRONE LSA-PLUS connection technology
- Fits on all LSA-PLUS back mount frames
- Suitable for use in all XDSL and ADSL 2+ circuits
- Flexible indoor and outdoor use
- Robust long-term environmental stability
- Supports all LSA-PLUS Series 2 accessories
- Overvoltage protection
- Labels
- Test and connection cords

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## SPECIFICATIONS

### Electrical values

Insulation resistance	>50 GW @ 500 V
Contact resistance	1 mW

### Safety classification (EN 60950)

Transient voltage	2.5k V
Operation voltage for basic insulation	210VDC TNV
Pollution severity	II
Current-carrying capacity	2 A
Impulse current	5 kA (8/20µs)

### Conductor diameter/outer diameter of connectable wires

Single solid wire per contact	0.35mm/0.68mm to 0.9mm/1.5mm AWG 26 to AWG 20
Stranded wires (7 tin-coated copper strands)	0.12mm to 0.32mm/up to 2.1mm (Depending on insulation type) AWG 28 to AWG 20
Overall diameter of connectable wires (solid insulation)	0.68mm to 1.6mm

**Properties**

Connection frequency 200 times  
Plug-in cycles 250

**Temperature**

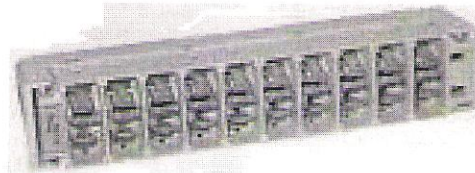
Storage (EN 60721-3-1) 1K5 (-40° C to +90° C)/1Z1/1B1/1C1/1S1/1M2  
Transport (EN 60721-3-2) 2K2 (-40° C to +90° C)/2B1/2C1/2S1/2M2  
Operation (EN 60721-3-3) 3K5 (-5° C to +60° C)/3Z1/3B1/3C1/3S1/3M2  
**Relative humidity** 95%; no water condensation, no ice

**Materials**

Plastics PBT; resistant against aggressive chemicals  
(PVC-softener)  
UL94V-0  
Plastics flammability class RoHS, European Directive 2002/96/EG  
Halogen free according to Special brass, silver-plated  
Contact

**KRONE FT2-01 LSA-PLUS PROTECTION MAGAZINE**

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**Description**

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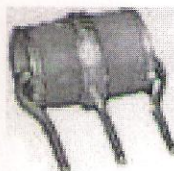
Krone FT2-01 LSA-PLUS Protection Magazine  
CM-IDC-K237/PM

This item has Network Rail approval against certificate number PA05/04466, PADS No. 087/002958

Unequipped LSA-PLUS 237A overvoltage protection magazine 2/10 for up to 10 3-pole GDTs. Provides 3-point, primary overvoltage protection. Refer to list of overvoltage arresters below for available 3-pole GDTs.

## **KRONE 3-POLE OVER VOLTAGE ARRESTER**

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### **Description**

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The 3-pole GDT (Gas Discharge Tube) arresters are available as standard and with a fail-safe.

3 Pole Arrester, with Fail-Safe, with nickel plated leads for push fit:

CM-IDC-K-OVA/14FS (260V 5A/5KA - K14A/1)

This item has Network Rail approval against certificate PA05/04466, PADS No. 087/004225

3 Pole Arrester, Standard, with nickel plated leads for push fit:

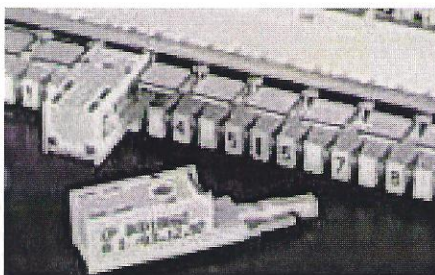
CM-IDC-K-OVA/SD (260V 5A/5KA - K14A)

3 Pole Arrester, with Fail-Safe, with nickel plated leads for push fit:

CM-IDC-K-OVA/FS (200V 5A/5KA - 21A)

## **KRONE FT2-01 LSA-PLUS 5 Point PROTECTION MODULE**

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### **Description**

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Krone FT2-01 LSA-PLUS 5 Point Protection Module

CM-IDC-K-5P180

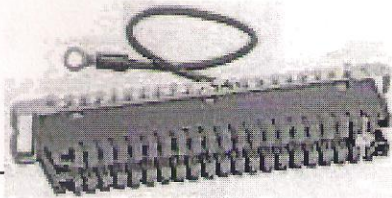
Compact plug-in single pair overvoltage protection for LSA-PLUS series. Compartment Series B protects from damage caused by overvoltage with a 3-pole GDT with failsafe (primary circuit) and transient secondary elements (Diodes) for quick responding fine protection. Additional overcurrent protection is realised with reversible thermistors (PTCs) that complete the 5 point protective circuitry. These devices are designed for use in exchanges and terminal equipment in



both analogue and ISDN (<2 MBps) systems. Often referred to as BI180.  
This item has Network Rail approval under certificate PA05/04466, PADS no. 087/004222  
Provides single pair overvoltage & overcurrent protection  
Operating voltage is 180V

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## KRONE FT2-01 LSA-PLUS EARTHLINE BLOCK



### Description

Krone 237E LSA-PLUS Earthling Block  
CM-IDC-K237E

Krone 237E Earthling Block, Series 2

All conductors in the block are commuted to a lead with a terminal connection.  
It is suitable for up to 38 wires when there are two wires per contact.

## KRONE FT2-01 LSA-PLUS INSERTION TOOL



### Description

Krone 237a LSA-PLUS Insertion Tool with no Sensor  
CM-IDC-K/LSA

Designed for use on all LSA-PLUS contacts.

- Service Life
- 0.4mm wire: 200,000 connections
- 0.6mm wire: 100,000 connections
- 0.8mm wire: 50,000 connections
- Ensures unparalleled contact security

## **KRONE FT2-01 LSA-PLUS LOCKING WEDGE**

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### **Description**

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Krone 237a LSA-PLUS Locking Wedge 23a  
CM-IDC-K23A

used for marking a single pair, particularly for high priority circuits.  
Prevents disconnection or use of test leads.  
Requires the use of the insertion tool extraction hook for removal

## **KRONE FT2-01 SERIES 2 MARKING CAP**

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### **Description**

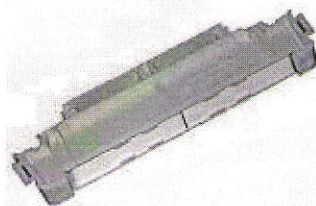
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Krone LSA-PLUS 237a Series 2 Marking Cap  
CM-IDC-K-MCR

Used for the identification of individual circuits on Series 2 modules. Colour: Red.

## **KRONE FT2-01 LSA-PLUS 10P DUST COVER**

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### Description

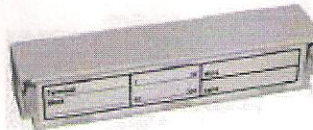
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Krone FT2-01 LSA-PLUS – 10P Dust Cover  
CM-IDC-K237/DC

For areas of high dust contamination the dust cover can be fitted over the LSA-PLUS, for additional protection.

### KRONE FT2-01 LSA-PLUS LABEL HOLDER

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### Description

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Krone 237a LSA-PLUS Fixed and Flip Type Label Holders available.

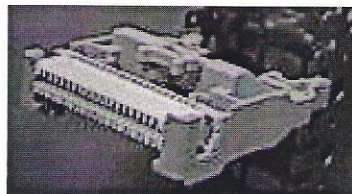
CM-IDC-K237/L (Fixed Label Holder and label, 53A)

CM-IDC-K237/51A (Flip Type Label Holder, 51A)

CM-IDC-K237/FL-100 (Labels for Label Holder, 51A, 100pk)

### KRONE FT2-01 LSA-PLUS OUTRIGGER

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### Description

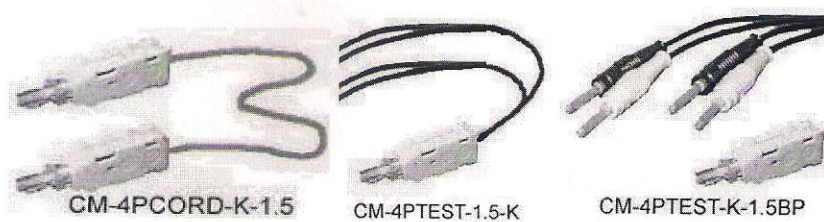
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Krone LSA-Plus Outrigger  
CM-IDC-K-UV/OR

Installation outrigger to provide quick hands free terminating of the Krone LSA Plus series 2 connector on either standard back mount or profile frames.

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## KRONE FT2-01 LSA-PLUS TEST & CONNECTION LEADS



### Description

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#### Krone 237a LSA-PLUS Test and Connection Leads

A range of 4 pole test and connection leads are available for use with the Krone 10pr disconnection modules.

The connection cords have a plug fitted to both ends to enable connection of two Krone modules. Typical test leads have a plug at one end only and have bare leads at other end. Also available is a 4 pole test lead with a plug at one end and Bascom fitted banana plugs at the other end.

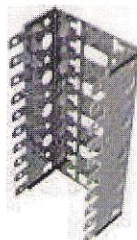
CM-4PCORD-K-1.5 (4 Pole Test Cord 1.5m Length with Plugs at both end)

CM-4PTEST-1.5-K/1 (4 Pole Test Lead 1.5m Length with Plug at one end and Bare Leads at other)

CM-4PTEST-K-1.5BP (4 Pole Test Lead 1.5m Length with Plug at one end and Banana Plugs at other end)

## BACK MOUNT FRAMES

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## Description

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The frame mounting (or back mount frame) is the standard mounting frame for 237a modules and 10 pair IDC strips. Manufactured from chromium steel and available in a wide range of lengths, simple to use, adaptable, lightweight and corrosion resistant.

CM-BF11-5 (5way, 11mm deep)  
CM-BF30-5 (5way, 30mm deep)  
CM-BF30-10 (10way, 30mm deep)  
CM-BF30-20 (20way, 30mm deep)  
CM-BF50-34 (34way, 50mm deep)