



MUTO - 2019

Multi User Telecommunications Outlet

MUTO - Versatility and customisation

Multi User Telecommunications Outlet

Multi User Telecommunications Outlet boxes are specifically designed for the direct termination of fibre and copper UTP cables. They incorporate added security features which make them well suited for Government, Defence and fibre-to-the-desk applications.



Cable Bend Radius Management

Cable management has become increasingly important in the MUTO design process. SRA Solutions offer a range of standard loops and built-in bend radius management for fiber and copper which can be customised on request.



Accessible and Visible Cable Infrastructure

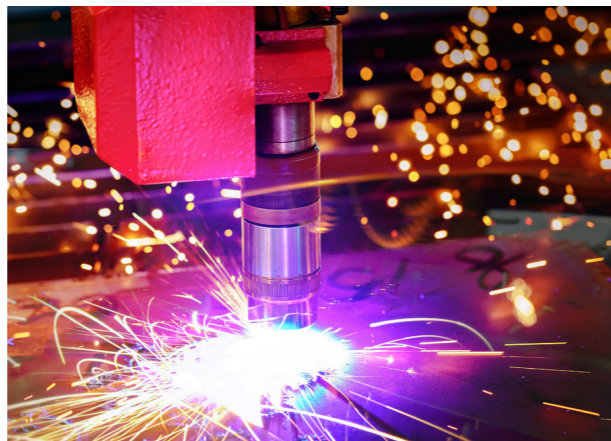
The Australian Government Information Security Manual 2016, stresses that within Protected Distribution Systems "proper cable management can minimise the likelihood of unauthorised personnel inadvertently or deliberately accessing system cables".

The Information Security Manual also states that "Implementing accessible and visible cable infrastructure can significantly reduce expenses resulting from future upgrades, accreditation, fault finding, configuration management and regular inspection for tampering or degradation.



Consolidation Point or Termination Point?

MUTOs are described as similar in function to consolidation points, which provide interconnection between horizontal cables running from a floor distribution room to those running to the work area, however MUTOs are best defined as termination points allowing single or multiple horizontal cables to terminate in one central location running directly to the workstation via a patch cord.



Quality Manufacturing

SRA Solutions is a business unit of Precision Metals Queanbeyan Pty Ltd.

Precision Metals operate one of Australia's most advanced state-of-the-art facilities, utilising the latest technology, lean manufacturing techniques and an elite team of professionals to provide high quality customised metal products. We have been servicing the custom 19" rack market both locally and overseas for the last 30 years.

This extensive experience makes SRA Solutions a reliable supplier to government and business organisations.

MUTO - Fibre cables and connector types



Single and Multimode Fibre - Cable Quality

Multimode is the most cost effective type of fibre and is used for communication over short distances, such as within a building or on a campus.

Single Mode fibre is a single strand of glass fibre that has one mode of transmission, carries a higher bandwidth and gives you a higher transmission rate than multimode fibre.

Single-mode fibre can deliver up to 50 times more distance than multimode, but has a cost premium.

Selection of the right fibre quality will depend on the transmission distance to be covered as well as the overall budget allowed. If the distance is less than 300m then multimode fibre is often preferred.

Types of fiber optic cable include -

Multimode:

- OM1 - Most commonly used for 100Mb applications.
- OM3 - Can run 10Gb performance at distances of 300mtrs.
- OM4 - Capable of 100Gb performance

SingleMode:

- OS1 / OS2 - Best solution for bandwidth + distance

Simplex and Duplex - Cable Forms

Having chosen the fibre cable, singlemode or multimode, next select simplex or duplex format. Single or multimode fibres are offered in single or multicore cable.

Simplex cable is composed of a single strand of fiber in a PVC outer jacket. Simplex cable can be supplied using either single mode and multimode fibre quality levels and is most often used where only a single transmit and/or receive line is required between devices or when a multiplex data signal is used (bi-directional communication over a single fibre).

A duplex fibre cable consists of two strands of fibre. This cable is most often used for duplex communication between devices where separate transmit and receive are required.

MUTO - Fibre Connectivity

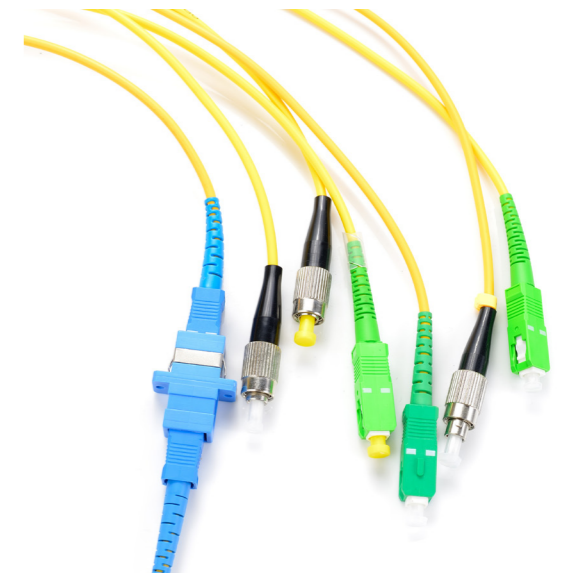
The most common types of fibre connectors are the ST, LC and SC which are used for datacom and telecom applications. The LC (Local Connector) is a "small form pluggable" connector used for high-density connections. ST (Straight Tip) and SC (Subscriber Connectors) are used for GPON/EPON; GBIC; MADL.

These connectors and adapters are offered to suit Simplex (single fibre) and Duplex (Dual Fibre body). They are available in the following body combinations:

- ST - Simplex
- LC - Duplex and Quad
- SC - Simplex and Duplex

Adapters have colour codes which are used to determine the type of fiber cable used in the installation. Some of these include:

Beige - OM1 Aqua - OM3 Violet - OM4 Blue - OS1 / OS2



MUTO - Copper Connectivity

Unshielded twisted pair (UTP) cables are found in many ethernet networks and telephone systems and are primarily used for indoor telephone and data applications. The connectors commonly used for telecommunications are RJ25, whilst for ethernet its RJ45.

SRA Solutions MUTO enclosures include RJ45 termination positions as standard - The RJ25 can be provided upon request.



MUTO - Colour coding for security

Top Secret

Red



Secret

Pink



Confidential

Green



Restricted

Blue



Unclassified

Black



Unclassified

White




Unclassified

Orange



Unclassified

Grey



Defence Colour codes for Secure Cabling

Cabling infrastructure on Defence sites differs from commercial installations in the standard of security measures applied in design and installation.

Defence incorporates recognised national and international standards combined with specific security measures to comply with Whole of Government and Defence specific security criteria for the following related areas:

- Wide and Local Area Networks;
- Wireless Access and Satellite;
- Unified Communications (Voice and Video)
- Multi-national networks;
- Tactical Communications and Gateways.

The services that make up the Defence Information Environment comprise of, but are not limited to the following Defence specific networks:

- Unclassified Networks;
- Voice Network;
- Secret Network;
- Top Secret Network.

Patch leads and passive infrastructure for all networks should comply with the cable colours as directed in the Australian Government Information Security Manual (ISM).

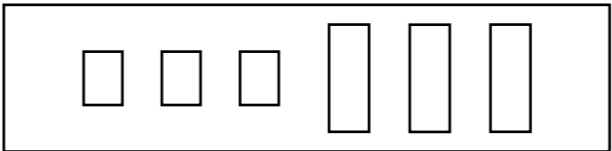
Custom



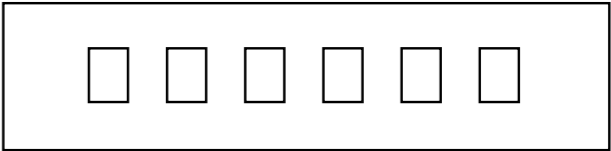
Yellow *

Custom colour shown - See Page 9 for details *

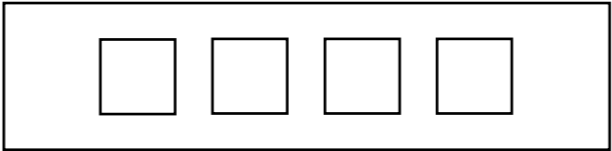
MUTO - Standard enclosures and options



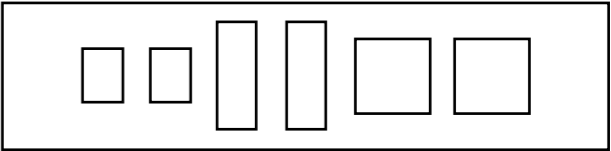
3 x SC Simplex (LC Duplex) | 3 x SC Duplex (LC Quad)



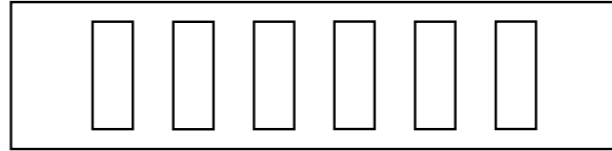
6 x SC Simplex (LC Duplex)



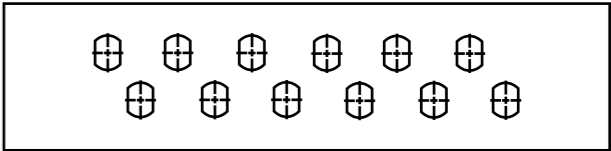
4 x 25 x 25mm (RJ45 Bezel)



2x SC Simplex (LC Duplex) | 2x SC Duplex (LC Quad) | 2x 25x25mm (RJ45 Bezel)



6 x SC Duplex (LC Quad)



12 x ST Simplex

Choose Your Cable Termination Options:



Standard inclusions:

150 x 150 x 50mm Enclosure with sliding lid

Cable entry knockouts:

- Rear: 1 x 25mm knockout
- LH Side: 1 x 25mm knockout
- RH Side: 1 x 25mm knockout

Front:

Choose from 6 standard layout combinations

Cable management:

Internal 2 way cable radius management loop

Mounting:

Base panel supplied with 2 x raised mounting positions

Security:

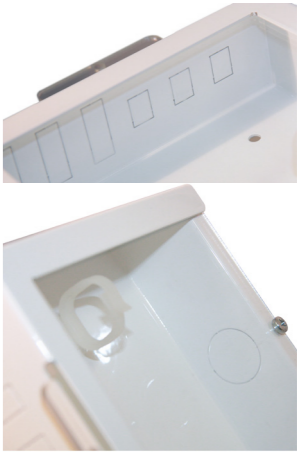
Provision for 1 x Roto seal

Features and Benefits:

- Versatile small size
- Clear Perspex cover for added security
- Knockout adapter and cable openings keep pests or vermin from entering unused ports
- Cable entry holes for wall mounted and concealed cable entry
- Provision for anti-tamper seals
- Two cable management clips for easier management of internal wiring
- IP20 Rated

Applications:

- Suitable for direct termination of riser fibre cable and UTP copper cable
- Remote cable terminations within building
- Defence requirements for identifying tampering or accidental fibre disconnections
- Fibre-to-the-desk applications

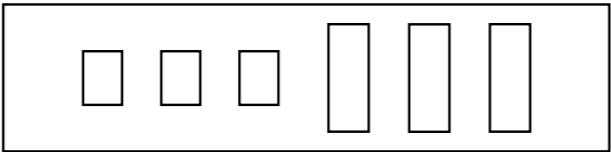


MUTO - Type 1

3 x SC Simplex (LC Duplex)
3 x SC Duplex (LC Quad)

Technical Specifications:

Part ID	Colour	Type	Colour Codes	
-	Red	Type 1	Top Secret	BUY NOW
-	Pink	Type 1	Secret	BUY NOW
-	Green	Type 1	Confidential	BUY NOW
-	Blue	Type 1	Restricted	BUY NOW
-	Black	Type 1	Unclassified	BUY NOW
-	White	Type 1	Unclassified	BUY NOW
-	Orange	Type 1	Unclassified	BUY NOW
-	Grey	Type 1	Unclassified	BUY NOW



150 x 150 x 50mm Enclosure with sliding lid



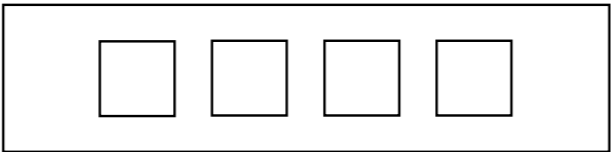
- Standard Inclusions:
- Rear: 1 x 25mm knockout
 - LH Side: 1 x 25mm knockout
 - RH Side: 1 x 25mm knockout
 - Internal 2 way cable radius management loop
 - Base panel supplied with 2 x raised mounting positions
 - Provision for 1 x Roto seal

MUTO - Type 2

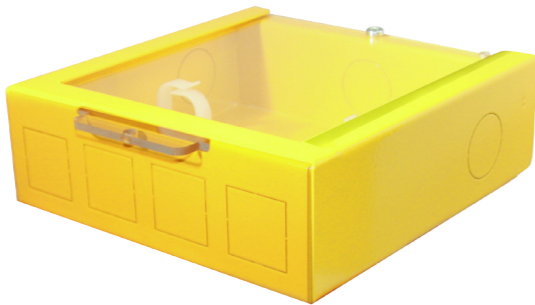
4 x 25 x 25mm (RJ45 Bezel)

Technical Specifications:

Part ID	Colour	Type	Colour Codes	
-	Red	Type 2	Top Secret	BUY NOW
-	Pink	Type 2	Secret	BUY NOW
-	Green	Type 2	Confidential	BUY NOW
-	Blue	Type 2	Restricted	BUY NOW
-	Black	Type 2	Unclassified	BUY NOW
-	White	Type 2	Unclassified	BUY NOW
-	Orange	Type 2	Unclassified	BUY NOW
-	Grey	Type 2	Unclassified	BUY NOW



150 x 150 x 50mm Enclosure with sliding lid



Custom colour shown - See Page 9 for details *

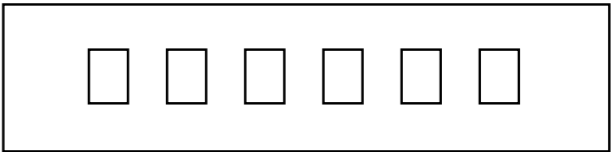
- Standard Inclusions:
- Rear: 1 x 25mm knockout
 - LH Side: 1 x 25mm knockout
 - RH Side: 1 x 25mm knockout
 - Internal 2 way cable radius management loop
 - Base panel supplied with 2 x raised mounting positions
 - Provision for 1 x Roto seal

MUTO - Type 3

6 x SC Simplex (LC Duplex)

Technical Specifications:

Part ID	Colour	Type	Colour Codes	
-	Red	Type 3	Top Secret	BUY NOW
-	Pink	Type 3	Secret	BUY NOW
-	Green	Type 3	Confidential	BUY NOW
-	Blue	Type 3	Restricted	BUY NOW
-	Black	Type 3	Unclassified	BUY NOW
-	White	Type 3	Unclassified	BUY NOW
-	Orange	Type 3	Unclassified	BUY NOW
-	Grey	Type 3	Unclassified	BUY NOW



150 x 150 x 50mm Enclosure with sliding lid



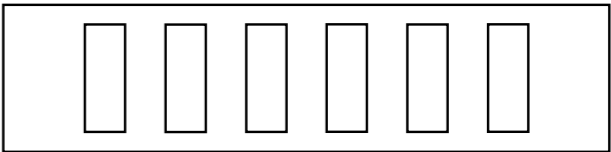
- Standard Inclusions:
- Rear: 1 x 25mm knockout
 - LH Side: 1 x 25mm knockout
 - RH Side: 1 x 25mm knockout
 - Internal 2 way cable radius management loop
 - Base panel supplied with 2 x raised mounting positions
 - Provision for 1 x Roto seal

MUTO - Type 4

6 x SC Duplex (LC Quad)

Technical Specifications:

Part ID	Colour	Type	Colour Codes	
-	Red	Type 4	Top Secret	BUY NOW
-	Pink	Type 4	Secret	BUY NOW
-	Green	Type 4	Confidential	BUY NOW
-	Blue	Type 4	Restricted	BUY NOW
-	Black	Type 4	Unclassified	BUY NOW
-	White	Type 4	Unclassified	BUY NOW
-	Orange	Type 4	Unclassified	BUY NOW
-	Grey	Type 4	Unclassified	BUY NOW



150 x 150 x 50mm Enclosure with sliding lid



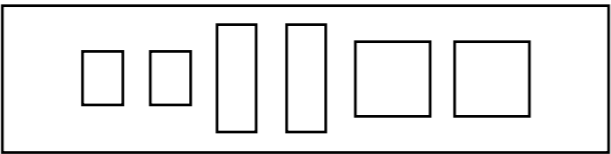
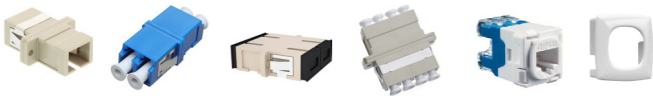
- Standard Inclusions:
- Rear: 1 x 25mm knockout
 - LH Side: 1 x 25mm knockout
 - RH Side: 1 x 25mm knockout
 - Internal 2 way cable radius management loop
 - Base panel supplied with 2 x raised mounting positions
 - Provision for 1 x Roto seal

MUTO - Type 5

2x SC Simplex (LC Duplex)
2x SC Duplex (LC Quad)
2x 25x25mm (RJ45 Bezel)

Technical Specifications:

Part ID	Colour	Type	Colour Codes	
-	Red	Type 5	Top Secret	BUY NOW
-	Pink	Type 5	Secret	BUY NOW
-	Green	Type 5	Confidential	BUY NOW
-	Blue	Type 5	Restricted	BUY NOW
-	Black	Type 5	Unclassified	BUY NOW
-	White	Type 5	Unclassified	BUY NOW
-	Orange	Type 5	Unclassified	BUY NOW
-	Grey	Type 5	Unclassified	BUY NOW



150 x 150 x 50mm Enclosure with sliding lid



Standard Inclusions:

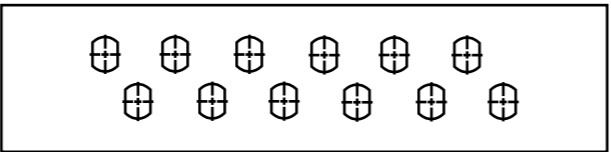
- Rear: 1 x 25mm knockout
- LH Side: 1 x 25mm knockout
- RH Side: 1 x 25mm knockout
- Internal 2 way cable radius management loop
- Base panel supplied with 2 x raised mounting positions
- Provision for 1 x Roto seal

MUTO - Type 6

12 x ST Simplex

Technical Specifications:

Part ID	Colour	Type	Colour Codes	
-	Red	Type 6	Top Secret	BUY NOW
-	Pink	Type 6	Secret	BUY NOW
-	Green	Type 6	Confidential	BUY NOW
-	Blue	Type 6	Restricted	BUY NOW
-	Black	Type 6	Unclassified	BUY NOW
-	White	Type 6	Unclassified	BUY NOW
-	Orange	Type 6	Unclassified	BUY NOW
-	Grey	Type 6	Unclassified	BUY NOW



150 x 150 x 50mm Enclosure with sliding lid



Standard Inclusions:

- Rear: 1 x 25mm knockout
- LH Side: 1 x 25mm knockout
- RH Side: 1 x 25mm knockout
- Internal 2 way cable radius management loop
- Base panel supplied with 2 x raised mounting positions
- Provision for 1 x Roto seal

MUTO - Customise your own...

Can't see what you want in our standard range?

Request a custom quote!

Customisation:

When it comes to precision, nothing comes close to laser cutting in terms of performance. SRA Solutions MUTO boxes are supplied with a combination of LC, SC RJ, circular and square, laser cut knockouts.

Beyond the standard knockout combinations, SRA Solutions can customise your MUTO box with exactly the right mix of cable adapter knockouts for your job.

Simple to open up, knockouts provide increased security by reducing internal access through unused cable adapter positions. Our precision cut laser knockouts are produced with the smallest material "witness", reducing sharp edges and roughness, making them cable safe and user friendly.

If you can't see what you want in our standard range, you can request a custom quote by filling out this form and emailing to - enquiry@srasolutions.com.au

Describe your costum MUTO box:

Standard Colour	Tick Colour	Connector Type	Qty
Red	<input type="checkbox"/>	ST Simplex	
Pink	<input type="checkbox"/>	SC Duplex (LC Quad)	
Green	<input type="checkbox"/>	SC Simplex	
Blue	<input type="checkbox"/>	RJ45 Bezel	
Black	<input type="checkbox"/>	Other:	
White	<input type="checkbox"/>		
Orange	<input type="checkbox"/>		
Grey	<input type="checkbox"/>		

Contact Details:

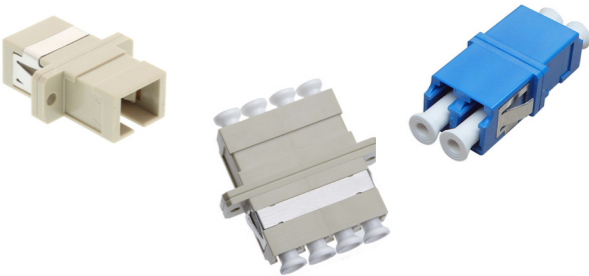
First Name:

Surname:

Company:

Email:

Mobile:



More Information

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