

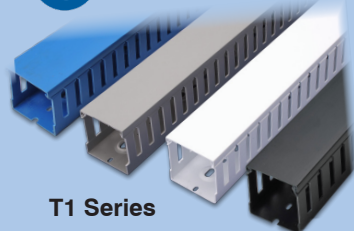
Wiring Solutions for All Your Needs...

Rigid and Flexible Wire Ducts

Wire ducts provide an easy, efficient and safe way to organize wires and cables routed inside an electrical enclosure or cabinet. Our wiring ducts are available with rigid walls with narrow or wide fingers that can be removed to allow larger size cables or wire bundles to fit easily. We also offer a flexible version that bends as needed and allows effortless wire runs through the duct.

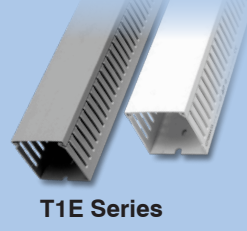


Iboco and AchieVe wire ducts are rugged UL recognized products made of a UL94V-0 flammability rated PVC material.



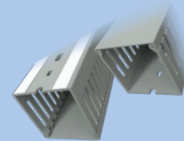
T1 Series
Wide Finger Slotted Wall (rigid)

- Includes non-slip cover
- Wide finger design provides greater rigidity and larger slot width design
- Rounded, burr-free edges prevent hand or insulation damage
- Flush cover design holds up to 12% more wires
- Two break lines allow removal of sidewall finger segments or finger and base segments
- Patented recessed boss allows rapid component mounting
- Sold in 1m and 2m lengths and in various width and height combinations
- Colors: Standard gray or white colors, also available in a black color that complements telecom racks and hardware, or an intrinsic blue color per ISA-RD12.6 specifications



T1E Series
Narrow Finger Slotted Wall (rigid)

- Same features as T1 series but with narrow finger design for compact wiring configurations
 - Available in white or gray color
 - Restricted slot design retains wires in slot for fast, easy wire installation or removal
- T1E Series with Self-Adhesive**
- Same features as T1E series but adds the convenience of a self-adhesive tape that helps reduce installation time by holding position while installer secures the wiring duct. Foam adhesive conveniently allows repositioning of the wire duct for precision and optimized final installation
 - Sold in 2m lengths in gray color only



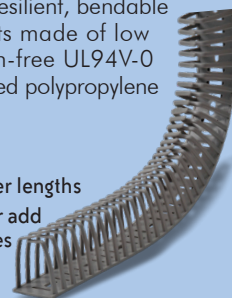
TSH Series
Solid Wall (rigid)

- Includes non-slip cover
- Standard mounting holes
- Flush cover design holds up to 12% more wires than traditional wire ducts
- Patented recessed boss allows rapid component mounting
- Sold in 2m lengths and in various width and height combinations
- Gray color

Dinosaur Series
Flexible Wire Ducts

Iboco Dinosaur DN series flexible wire ducts are resilient, bendable UL/CS products made of low smoke, halogen-free UL94V-0 flammability rated polypropylene material.

- Gray color
- Sold in 0.5-meter lengths
- Easily remove or add wiring and cables
- 3 sizes available



AchieVe narrow and wide finger slotted wall rigid wire ducts offer high quality at a more cost-effective installation.



WDN Series Narrow Finger Slotted Wall

- Gray color
- Finger slots allow easy cable tie installation
- Sold in 2-meter lengths complete with cover
- Various sizes to fit panel needs
- Snap-in feature on bottom of duct enables easy accessory mounting



WDW Series Wide Finger Slotted Wall

Accessories such as spiral wrap, braided sleeving, replacement rigid duct covers, wire duct accessories and labels are also available.



...From Your One-Stop Automation Superstore

Tubing, Conduit, and Connectors

Electrical tubing and conduit provide routing channels for electrical wires and excellent protection from abrasion, sunlight, mild acids, alkaline, and oils. Liquid-tight conduits and tubing are especially useful to provide complete moisture protection when installations require several bends and turns.



I-Flex Tubing

I-Flex liquid-tight flexible electrical tubing and connectors house and protect wiring and cables, providing simple and fast installation. Available in a range of diameters, flexible non-metallic tubing is ideal for tight, non-linear wiring runs, including where liquid or ultraviolet resistance is required.

- Flexible for fast installations
- Excellent for areas with tight quarters, movement, vibration, or flexing issues
- Available in light gray or black



I-Flex Tubing Connectors

I-Flex liquid-tight straight and right angle (90°) non-metallic Polypropylene connectors are designed for use with I-Flex tubing to provide leak-proof integrity for motor, processing equipment, pumps, and many other installations.

- Quick re-entry for cable repair or rerouting
- Seal gaskets included with each connector pack
- Corrosion, solvent, grease, oil, alcohol, gasoline, and saltwater resistant
- Available in light gray or black



Electri-Flex Non-Metallic Conduit

Electri-Flex Liquatite non-metallic flexible liquid-tight electrical conduit is constructed with a spiral of rigid PVC reinforcement within the conduit wall.

- Type NM: Liquid-tight non-metallic conduit that provides excellent wire protection
- Contains 1000V and lower circuits
- Outdoor, direct burial or in poured concrete use
- Use with standard metallic or non-metallic liquid-tight connectors
- Approved for hazardous location (Class I Div 2, Class II Div 1, Class III Div 1)
- Ideal for wiring to motors; lighting; electrical signs; elevators; pools / fountains; enclosure connections; other miscellaneous building wiring



Electri-Flex Metallic Conduit

Electri-Flex Liquatite metallic flexible liquid-tight electrical conduit is constructed with a spiral strip of corrosion-resistant, hot-dipped galvanized steel within the conduit wall.

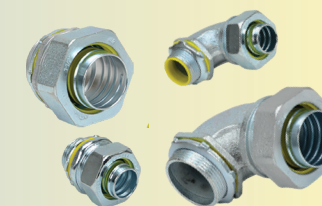
- Provides same features as non-metallic Type NM conduit
- Type LA: Offers outstanding protection against wet or oily conditions, and exposed or concealed locations
- Type ATLA: Designed for extreme environments; remains flexible at low temperatures; flame retardant; resists aging at elevated temperatures
- Type SLA: Designed for wiring applications requiring protection from electromagnetic and radio frequency interference



Conduit Connectors

RACO liquid-tight conduit connectors join tubing at splice or directional points, or to the mechanical terminations of electrical devices.

- Designed to fit flexible metallic and non-metallic conduit
- Available in straight or right angle bodies
- Sold individually or in bulk quantities
- Positively bonds conduit providing a Class I, Div 2; Class II, Div 1 & 2; and Class III, Div 1 and 2 hazardous locations connection



Tubing, Conduit, and Connectors (continued)

murrplastik® Simply Smart Systems Non-Metallic Two-Piece Split Conduit

EWT-PA Series Split Conduit

Pulling pre-assembled cables in a conduit is an impossible task unless the cables are dismantled and reassembled, resulting in excess work, installation time and cost.

The EWT-PA series of non-metallic, two-piece split conduit provides the solution with complete convenience, quick installations, and time and cost savings.

This conduit is perfect for working with terminated cabling, wires and retrofitting applications. The dual overlapping conduits provide an easy way to insert the cabling and secure it while increasing mechanical protection and eliminating unintentional exposure of the cabling bundle inside.

These conduits consist of two separate corrugated tubes, one inside the other, which allows the conduit to be opened and reassembled at any time.



- Made of specially modified black polyamide 6
- Simplifies addition, removal or repairs of cables to existing systems anytime
- High crush resistance, per IEC EN 61386: >900N
- Halogen, phosphor and cadmium-free
- Sold in various diameter sizes and in coils of 32 or 82 ft.

Split Conduit Accessories

Accessories specifically designed for Murrplastik split conduits provide convenience, quick, easy and secure installations, and ease of laying out and securing the conduit.

KFW/D Series Bulkhead Connectors

Provide a 90-degree connection to feed any EWT-PA series conduit.

SVT Series Straight Connectors

Together with a GMT series split lock nut provide a way to attach and secure then end of any EWT-PA conduit to electrical equipment.

SVG Series Couplings

Provide a way to repair or extend any EWT-PA series conduit with a quick snap.

Pass-through Connectors

Provide a way to hold securely any EWT-PA series conduit through equipment and machinery cabinet walls.

Conduit Holders

Provide a way to attach and secure any EWT-PA series conduit with a quick snap.

End Sleeves

Provide a way to close off any open end of any EWT-PA conduit or helps center existing cables.

Conduit Clamps

Provide a way to easily mount and snap securely any EWT-PA series conduit.

KE Series Wire Insertion Tool

Makes wire insertion and feeding extremely quick and easy.

bimed cable Glands

Cable glands, commonly known as cable connectors or fittings, are designed to attach and secure a cable to electrical equipment or at an enclosure entry point. Cable glands provide strain relief and typically seal out dust, dirt and even liquids.

Cable glands are also available for specialized applications such as control of EMC noise and in hygienic conditions like those required for food, beverage and pharmaceutical industries.

Standard and Protection Series Plastic Cable Glands

Material

- Body: PA 6 (Polyamide 6)
- Cap: PA 6 (Polyamide 6)
- Seal: CR (Chloroprene Rubber)
- Locknut: PA 6 (Polyamide 6), 30% glass fiber reinforced (Protection series only)

Protection Class

- IP68 - 5 Bar (72.5 psi)

Attachment Threads

- Available in Metric, PG, or NPT threads



Brass Cable Glands

Material

- Body: Brass nickel-plated
- Cap: Brass nickel-plated
- Seal: CR (Chloroprene Rubber)
- Clamp Insert: PA 6 (Polyamide 6)
- O-ring: NBR

Protection Class

- IP68 - 5 Bar (72.5 psi)

Attachment Threads

- Available in Metric, PG, or NPT threads



Also Available:
Hygienic Cable Gland Adapters: These adapters allow the use of a smaller Allen wrench when installing the hygienic cable gland.



Replacement Hex Nuts: Available in various materials, thread sizes and for standard, hygienic, or EMC gland types.

EMC Cable Glands

EMC cable glands maintain the shielding integrity from the shielded cable to the enclosure simply by tightening the gland. Long-lasting contact is achieved using a high-definition spring designed to move to prevent damage to the sheath.

Material

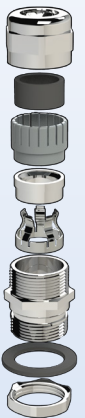
- Body: Brass nickel-plated
- Cap: Brass nickel-plated
- Seal: CR (Chloroprene Rubber)
- Clamp Insert: PA 6 (Polyamide 6)
- Contact Spring: Special copper alloy
- O-ring: NBR

Protection Class

- IP68 - 5 Bar (72.5 psi)

Attachment Threads

- Available in Metric, PG, or NPT threads



Hygienic Cable Glands

Hygienic cable glands have a smooth finish with no threads exposed, preventing harmful micro-organisms from sticking to the surface. The sealing material is in accordance with FDA guideline 21 CFR 177.2600. The design allows for easier, faster, and lower-cost cleaning.

Hygienic cable glands are available in standard type and EMC type, which adds the shielding protection for shielded wiring.

Material

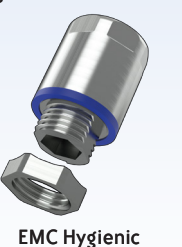
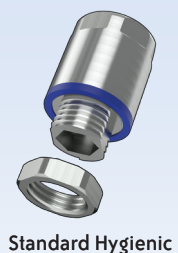
- Body: Stainless Steel
- Cap: Stainless Steel
- Locknut: Stainless Steel
- Contact Spring: Special copper alloy (EMC version only)
- Seal: EPDM, according to FDA guideline 21 CFR 177.2600

Protection Class

- IP66, IP69, IP68 - 5 Bar (72.5 psi)
- UL TYPE 1, 2, 4, 4X, 12, 12K, 13 according to UL 50E

Attachment Threads

- Available in Metric, or NPT threads

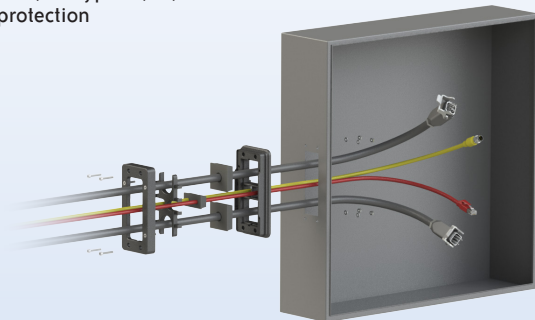


bimed Cable Entry Systems

BPA Series Cable Entry Plates

BPA series cable entry plates allow cables to be installed through an enclosure and other bulkhead surfaces, with the added benefit that pre-made, terminated cables can be installed without disassembling the connectors. The BPA series is a split-frame system that allows quick and simple installation of up to 10 cables in a single frame. The grommets are pyramidal with conical outer surface. These shapes ensure high strain relief when they are compressed into their conical seats. The robust multi-part frame design provides better mechanical stability and a high degree of environmental protection.

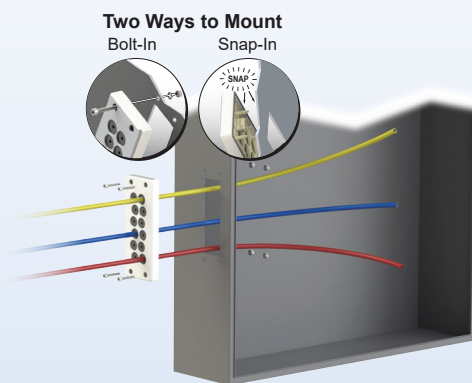
- Uninterrupted cable guidance
- Easy assembly
- Integrated strain relief
- IP66, UL Type 12, 13, 4X protection
- Matching grommets: BPA series
- Operating temperatures: -40 to +176 °F (-40 to +80 °C)
- 2-year warranty



BRM Cable Entry Systems

The BRM series cable entry systems allow non-terminated cables to be installed through an enclosure or other bulkhead surfaces, allowing a high density of cables to pass through a small area. The BRM series is a one-piece system that enables quick and simple installation of up to 29 cables in a single frame. The ultra-flexible entrance membrane ensures ingress protection for a large range of cable diameters.

- Available in 1 frame size
- Quick and easy to install
- Bolt-in or snap-in mounting
- Integrated strain relief
- Fits standard cut-out dimensions
- IP65, UL Type 12,13, 4X protection
- Operating temperature: -40 to 176°F (-40 to 80°C)
- 2-year warranty

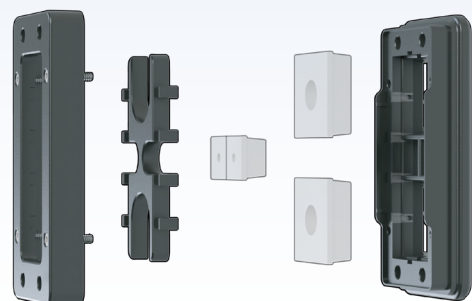


Split Frames

The split frame is a multi-part system that clamps together with a grommet block and grommets to provide a high-density cable entry point for up to 10 cables. The grommet block is included with each frame.

Grommets

BPA series grommets are perfect for round cables. The small version accepts cable diameters between 0.138 to 0.61 inches (3.5 to 15.5mm). The large version accepts cable diameters between 0.61 to 1.161 inches (15.5 to 29.5 mm).



Frames

BRM series frames are one-piece systems that allow non-terminated cables to be installed through an enclosure or other bulkhead surfaces, allowing a high density of cables to pass through a small area.

A special back sealing design ensures "close fit" even if a cable is removed. This unique feature allows a cable to be inserted and removed as needed.



murrplastik Cable Entry Systems

Cable entry systems consist of split frame systems that allow the installation of pre-made and/or terminated cables to be installed through an enclosure and other bulkhead surfaces. These systems also include one-piece frames that allow non-terminated cables to be installed. In addition, split frame and one-piece systems are also available in FDA compliant versions that can be used for food, beverage, pharmaceutical and industries requiring clean room specifications. All series consist of robust multi-part frame designs that give better mechanical stability while achieving a high degree of environmental protection.



KDL/D and KDL/D Mono Series

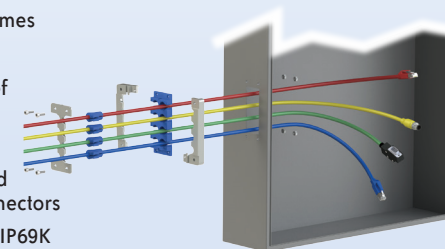
The KDL/D series is a split-frame system that enables the quick and simple installation of up to 48 pre-made and/or terminated cables in a single frame. The KDL/D MONO series is a round split-frame version that allows up to 8 cables in a single frame.

- Available in 4 frame sizes
- Uninterrupted cable guidance
- Easy assembly
- Integrated strain relief
- Fits standard cut-out dimensions
- High protection class IP65
- Matching grommets: KDT/X
- 2-year warranty

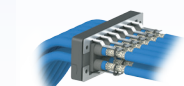
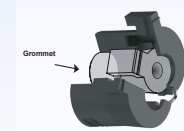
KDL/H-VA-FDA Series

This is a split-frame system that enables the quick and simple installation of up to 12 pre-made and/or terminated cables in a single frame. The frames are made of stainless steel and the grommets and grommet blocks are made of TPE, making them FDA compliant cable entry systems.

- 2-piece or 3-piece frames
- Easy assembly
- Integrated strain relief
- Halogen free
- Suitable for standard cutouts for 24-pin and 16-pin industrial connectors
- High protection class IP69K
- 2-year warranty



Note: Mounting Hardware not included.



Split-frames clamp together with a grommet block and grommets to provide a high-density cable entry point with an IP65 environmental rating. Also available in stainless steel FDA compliant with IP69K rating.

Grommets are perfect for round cable entries and are available in two versions, small or medium to accept various cable diameters. A blank grommet is available for any unused small openings in the grommet block. Also available in TPE FDA compliant with IP69K rating.

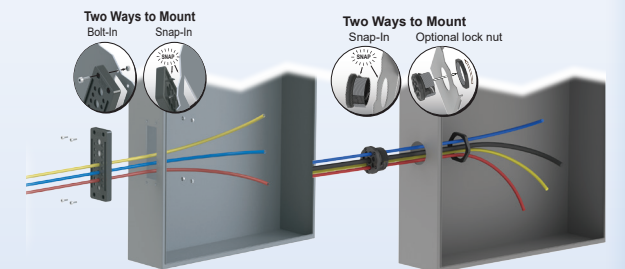
Grommet adapters offer the option of installing a small grommet into a slot for medium grommets, allowing greater flexibility for your cabling application.

Discharge plate provides a means to eliminate interference that can occur on cable shields. The discharge plate is made of high-quality 1.4310 (V2A) stainless steel.

KDP/X and KDP/R Series

The KDP/X series is a one-piece frame system that can be used with standard cutouts and mounted with an improved tool-free clip-in mounting or screw mounting option. The KDP/X series allows quick and simple installation of up to 29 non-terminated cables in a single frame. The KDP/R series is a round version that allows up to 46 cables in a single frame.

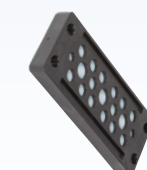
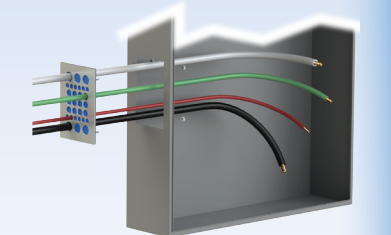
- Available in 2 frame sizes
- Integrated strain relief
- Fits standard cut-out dimensions
- High protection class IP65
- Halogen free
- 2-year warranty



KDP Series FDA Cablequick®

This one-piece frame is made of stainless steel and includes an FDA compliant TPE elastomer specially modified for Murrplastik to enable the use for food, beverage and pharmaceutical industries. This series allows quick and simple installation of up to 56 non-terminated cables in a single frame.

- High stability
- Halogen free
- FDA compliant per FDA 21 CFR
- High protection class IP65
- ECOLAB Certified
- 2-year warranty



One-piece frames have one instead of two elastomer plates and are a great alternative to cable fittings when having a large number of cables and space is an issue. Also available in stainless steel FDA compliant with IP69K rating.

murrplastik Simply Smart Systems **Cable Entry Systems (continued)**

ZL Series Cable Strain Relief Plates

Murrplastik ZL series cable strain relief plates are designed to provide efficient strain relief for cables, conduits, cords, wires, and hoses by providing support and a means of securing the cables, etc. using a cable tie.

- Designed for panel mounting
- Easy assembly
- Black polyamide construction for durable corrosion resistant service
- Available in various sizes to hold from 4 to 12 cables and in packs of 5
- Plates secured with screws for high stability

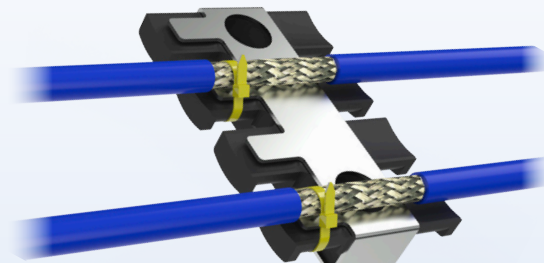


Cable ties not included

ZL-AB Series EMC Discharge Plates

Murrplastik ZL-AB series EMC discharge plates are designed to work specifically with ZL series part numbers 566116 and 566124, to provide a conductive path for grounding shielded cable. These metal plates fit onto the compatible ZL series relief plates and are mounted on a grounded surface to divert any current leakage to ground.

- Designed for inside panel mounting
- Easy assembly
- Available in two sizes (4 or 9 cables) and in packs of 5
- Plates secured to ZL series relief plates for high stability
- Stainless steel construction for durable corrosion resistant service



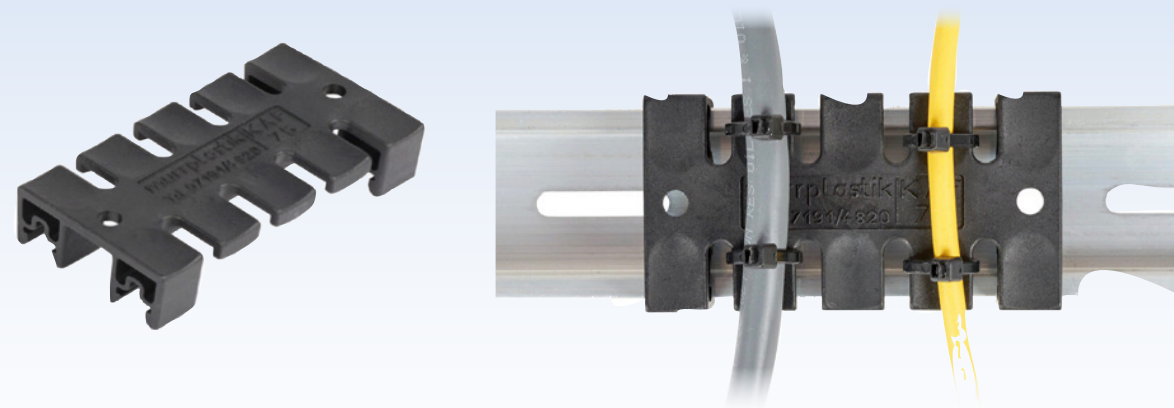
NOTE

The cable's outer jacket is removed to allow for a conductive path from the cable shielding to the EMC discharge plate/ground, as shown above.

KAF Series DIN Rail Mounted Cable Strain Relief Plates

Murrplastik KAF series DIN rail mounted cable strain relief plates are designed to provide efficient strain relief for cables, conduits, cords, wires, and hoses by providing extra support and stability for cables, etc. that are attached using cable ties. These strain relief plates provide added convenience and faster installation by quickly and securely snapping the plate onto any standard 35mm DIN rail.

- Designed for quick 35mm DIN rail mounting
- Black polyamide construction for durable corrosion resistant service
- Available in various sizes to hold from 1 to 9 cables and in packs of 5
- Compact design for small footprint on DIN rail
- DIN rail installation provides high stability



Cable ties not included

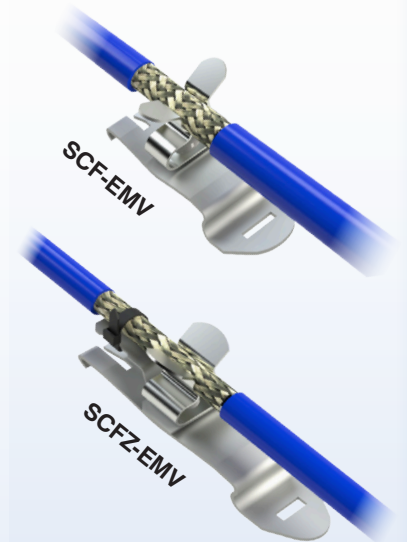
murrplastik Simply Smart Systems **EMC Shield Cable Clips**

SCF-EMV and SCFZ-EMV Series EMC Shield Cable Clips

Murrplastik SCF-EMV and SCFZ-EMV series EMC shield cable clips are designed to mount on a 35mm DIN rail and allow a shielded cable to securely snap into the clip, providing cable management and a conductive path for grounding. The cable's outer jacket is removed to allow for a conductive path from the cable shielding to the DIN rail.

These EMC shield cable clips secure the shielded cable via the clip's spring action, providing uninterrupted contact pressure with the cable shield. The SCFZ-EMV series also provides strain relief for the shielded cable using a standard cable tie.

- Available in various clip sizes for a selection of cable diameters and in packs of 5
- Easy, tool-free installation
- Zinc plated spring steel construction
- 35mm DIN rail mounting inside electrical panel/cabinet
- Cable tie not included



Cable ties not included

Electrical Conduit Kits

FHS Series Electrical Conduit Kits

Murrplastik FHS series electrical conduit kits are specifically designed for cable routing and management for cobots and small robots. These kits offer professional cable management with the options of a solid conduit version or a split conduit version that is ideal for applications where cables are already connected or terminated. The conduit's corrugated polypropylene material supports a wide range of applications and enables repetitive dynamic movement of the cobot/robot arm while protecting the cables. This kit includes all the necessary components to install, secure and complete the installation of the conduit.



- Both conduits provide dynamic bend radius control, rated to 2,000,000 cycles @4.72 [IEC 61386]
- Solid tubing is rated for 270lbs crush resistance [IEC 61386]

Example of kit use

Kits include:

1. Protective conduit in either solid or split conduit versions (13ft of 1" diameter conduit)
2. Both kits include (20) hook & loop straps
3. Both kits include (5) mounts
4. (2) end grommets (solid and split version)
5. Wire insertion tool (split conduit only)