TRAFFIC PRODUCT CATALOG







WELCOME

1982 was a significant year for Sherman Miller, Multicom's founder and president. It was that year that he started Multicom, Inc. – an event marked by the opening of the garage door of his home.

Entrepreneurs understand that unless you know your clients' problems, unless you identify their pain, you can't provide viable, desirable solutions.

Multicom, a Service Disabled Veteran Owned Small Business (SDVOSB), now reaches around the world providing innovative solutions since, 1982. In that time, Multicom has grown to be a cohesive team of experienced technicians, engineers, administrators, and sales people with decades of experience under their belt – many of our staff have worked at Multicom for more than a decade.

Multicom strives not only to develop and deliver the latest technology, but our products are designed to accommodate the constant evolution of new technology.

Multicom offers from one source, multiple lines of products to completely build and maintain communication systems at cost effective prices. Sherman Miller

Multicom Founder, President and CEO



ABOUT MULTICOM

Multicom is a full-line Stocking Distributor of Traffic Signal Cable and Equipment based in central Florida for over thirty five years.

Same-day shipping or delivery is provided from our two local warehouses which stock over 19,000 products from more than 380 of the world's major manufacturers including a full line of Traffic Signal Hardware and Equipment as well as building wire and fiber optic, coax and composite camera cable - and all of the associated accessories.

Our goal has always been to create and distribute reliable, high-quality and innovative products for a fair price - and keeping customer service our #1 priority.

At Multicom, we are keenly mindful of local APL and DOT regulations. We only represent manufacturers that produce the highest quality local, state and federally approved and compliant products, made from materials that will stand the test of time. This is our commitment to you, and we stand behind it everyday.



Multicom is the Proud to be a Sustaining Member of the IMSA Since 2001

The International Municipal Signal Association (IMSA) is dedicated to providing quality certification programs for the safe installation, operation and maintenance of public safety systems.



Multicom is the Proud Recipient of the President's 'E' Award for Outstanding Contributions to the Export Expansion Program of the U.S.A.



The President's 'E' Award was created by Executive Order of the President on December 5, 1961, to afford suitable recognition to persons, firms, or organizations which contribute significantly in the effort to increase United States exports.







Sherman Miller, President and CEO of Multicom, is an executive board member of the Orlando Regional Chamber of Commerce - a 5-Star Chamber. The ORCC is specifically focused on regional entrepreneurship, serving the growing needs of businesses and entrepreneurs by 'Connecting our Members to Success', throughout Central Florida.

In addition to the above, Multicom is also a sustaining member and/or affiliated with multiple associations and communities in the industry including these, and more:





National Systems Contractors Association









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WIRE & CABLE

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| 4 | For over 35 years, we've served municipalities and contractors throughout the country - providing a comprehensive range of products from underground to overhead. We offer same-day-shipping and delivery, along with the expertise to ensure that you receive exactly what you need when you need it - first time, every time. | | |
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Public and private networks are continually being upgraded, using more and more optical fiber for video, data and voice transmission. Fiber-based communications networks have clear advantages over other media in cost, reliability, and capacity, spurring increased deployment on high-capacity networks. Multicom manufactures and stocks only the highest-quality and most cost-effective fiber optic products.

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SEALANT & LOOP ACCESSORIES

PULL BOXES

THIS CATALOG CAN BE DOWNLOADED FROM THE MULTICOM WEBSITE AT: WWW.MULTICOMINC.COM/TRAFFIC THE FULL MULTICOM PRODUCT CATALOG CAN BE DOWNLOADED AT: WWW.MULTICOMINC.COM/CATALOG



TRAFFIC SIGNAL WIRE & CABLE

Trusted by agencies across the nation to safely connect people and places everyday. Multicom is your reliable source for Traffic Signal Wire & Cable - In Stock and Made in the USA.



Multicom stocks a wide range of Traffic Signal Wire & Cable for nearly every application in our warehouses in central Florida. All configurations of Traffic Signal Wire & Cable among the manufacturers' products we carry have jackets rated to 90°C for both wet and dry locations. In addition, these cables are resistant to the effects of being outdoors, including fading and degradation that occurs because of moisture and sunlight. These Traffic Signal Wire & Cable products are compliant with UL Standards for overall cable construction and cold bend capabilities.

Disaster Recovery: Multicom is proud to be the go-to cable stocking distributer for government agencies, municipalities, system operators and cable companies - providing instant access to our huge inventory of cable where it's needed, when

it's needed, in times of natural disaster. When hurricanes hit, we are open for business 24/7, ready to assist in any way possible.

Most variations of Traffic Signal Wire & Cable that Multicom stocks can be custom-cut to any length depending on your unique application needs.

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IMSA CABLE



Wire And Cable For:

- Video Detection
 Loop Detection
- Traffic Signals
- Street Lighting

Multicom is a proud Sustaining Member of the IMSA Since **2001.** We offer a wide range of products for various municipal transportation applications: Traffic Communication, Inductive Loop Detection and Traffic Signal Control.

Manufactured in ISO-certified facilities, Multicom stocks statespecific cable of unsurpassed quality and reliability to ensure product consistency for every specification.



Your Partner in PUBLIC SAFETY

Signal Cable

| Spec 19-1 and 20-1 Signal Cable | Specification |
|---------------------------------|-----------------------------------------|
| Conductors | Solid or Stranded, bare copper |
| Insulation | Polyethylene |
| Color code | Per specification |
| Conductor configuration | Cabled conductors |
| Shield | None |
| Jacket | Spec 19-1 - PVC Spec 20-1 - Black PE |
| Operation mode | Full auto, semi-auto, manual |



19-1 & 20-1 Signal Cable with Solid or Stranded Conductors

Loop Detector Wire



| Spec 51-5 / 51-7 | Specification |
|-------------------------|------------------------------------------------------------------------|
| Conductors | Stranded, bare copper |
| Insulation | Spec 51-5 - PVC / Nylon Spec 51-7 - Black cross-linked polyethylene |
| Conductor configuration | Single conductor |
| Outer jacket | Black PVC or polyethylene tube |

| , | 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - |
|-------------------------|-----------------------------------------|
| Spec 50-2 | Specification |
| Conductors | Solid or Stranded, tinned copper |
| Insulation | Polyethylene |
| Color code | Black / Natural |
| Conductor configuration | Twisted pair |
| Shield | Aluminum / Mylar tape |
| Outer jacket | Black low-density polyethlene |



50-2

| 51-1 | 51-3 | 51-5 | 51-7 |
|------|------|------|------|

VIDEO DETECTION CABLE



Multicom is a leader in custom designed cable manufacturing and special wire construction. If a standard cable won't work for your application, we can design a cable customized to match your exact specifications. Whether you need a custom coaxial cable, special power cables or a completely new cable designed from scratch, we can provide a custom cable to fit your needs.

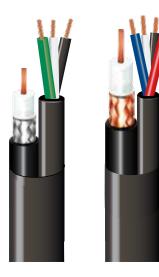


Composite Camera Cable

| Specification - Element 1 | Specification - Element 2 | |
|-------------------------------------|----------------------------------------------|--|
| One Component 23 AWG 4 UTP Cat 6 | 14 / 16 AWG 3C Shielded Cable | |
| Jacket - PVC | Component 1 - 14 / 16 AWG 19 Strands Class C | |
| Diameter - 0.23" | Material - Annealed BC | |
| Ripcord - Nylon | Conductor Count - 3 Conductors | |
| Color - Blue with standard UL print | Color Code - Black, White, Red | |

- Save Time and Money: Pull only one cable to camera locations
- Power Options: Use the CAT6 (POE) or the shielded power cable
- · Capable of volume control, audio/video, data transfer, networking
- Sunlight resistant and riser rated
- For security cameras and other applications
- Made in the USA

| Specification - Coax | Specification - Multi-Conductors |
|---------------------------------------------------------|-----------------------------------------------------------|
| Conductors - 20 AWG Solid BC | Component 1 - 16 AWG BC |
| Braid - 2 x 98% TC | Insulation - PVC .030 Nominal |
| Jacket - LDPE .304 Nominal | Jacket - PVC .030 Nominal |
| | Color Code - Black, White, Green |
| | |
| Specification - Coax | Specification - Multi-Conductors |
| Specification - Coax Conductors - 20 AWG Solid BC .032 | Specification - Multi-Conductors Component 1 - 16 AWG BC |
| • | |
| Conductors - 20 AWG Solid BC .032 | Component 1 - 16 AWG BC |





Multi-Conductor Camera Cable

| Specification |
|-------------------------------------|
| Conductors - Stranded Tinned Copper |
| Insulation - 16 / 18 AWG |
| Jacket - PE / PVC |
| Fillers - Nylon |
| Voltage Rating - 600 V |
| Temperature Rating - 90° C |
| Color Code - Black, White Green |



Precision Video Cable

| Specification - Coax |
|--------------------------------------|
| Conductors - 20AWG Solid Bare Copper |
| Braid - 2 x 98% TC |
| Jacket - PE |
| Color Code - Black |

BUILDING WIRE



Multicom stocks a variety of copper building wire, primarily used for power distribution, in a variety of colors that feature a low friction jacket designed to improve installation even under the most difficult conditions. Our high quality copper building wire is manufactured in the U.S. and delivers long-term, reliable performance in many types of building applications.

RHH/RHW-2 - XLP USE-2

Description: Single conductor, 90°C Wet/Dry. Insulated with chemically cross-linked polyethylene insulation.

Applications: Appropriate for use in general purpose wiring for lighting and power - residential, commercial, and industrial buildings. Suitable for applications that require superior flame retardance.

Construction: Conductors: 14AWG - 500 MCM fully annealed stranded bare copper per ASTM B3. Class B Stranding per ASTM B8.

- 600 Volt, Copper conductor
- · High-heat, moisture, and sunlight resistant
- · All size variations avaliable



Multicom can help you pull or blow this wire through conduit? See **Condux on page 14** for more information.

XHHW / XHHW-2

Description: Single conductor, 90°C Wet/Dry. Insulated with chemically cross-linked polyethylene insulation.

Applications: Appropriate for use in general purpose wiring for lighting and power - residential, commercial, and industrial buildings. Suitable for use in low leakage circuits requiring a dielectric constant of 3.5 or less.

Construction: Conductors: 14AWG - 500 MCM fully annealed stranded bare copper per ASTM B3. Class B Stranding per ASTM B8.

- 600 Volt, Copper Conductor
- · High-heat, moisture, and sunlight resistant
- · All size variations avaliable

THHN / THWN-2

Description: Single conductor stranded bare copper, with a PVC insulation and Nylon Jacket

Applications: Appropriate for use in general purpose wiring for lighting and power - residential, commercial, and industrial buildings. Suitable for use with machine tool

and appliance wiring.

Construction: Conductors: Uncoated fully annealed stranded bare copper per ASTM B3. Class B Stranding per ASTM B8.

- Construction, machine tools & control circuits
- · 600 Volts, Copper Conductor
- · Heat, moisture, gasoline, and oil resistant



Multicom has the Answers!
The Multicom website has two
easy to read and understand
articles: RHW, RHW-2, USE-2 and
RHH Building Wire – Explained,
and THHN vs. XHHW: What Is
the Difference? See them on our
Technical Resources page:
www.multicominc.com/
training/technical-resources/

STRAND WIRE





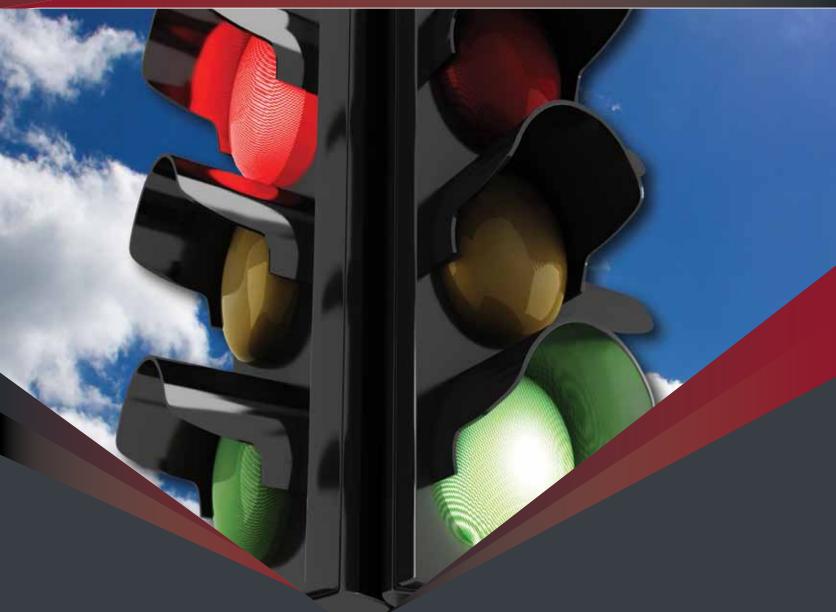


National Strand has built an unbeatable reputation among tough customers in the electric utilities and telecommunications industries, which demand the highest quality, most dependable galvanized

steel strand. The superior qualities of National Strand's products provide exceptional reliability and long life for guy wires, overhead ground wires and messenger cables.

Product Offerings:

- Galvanized Steel Strand
- Structural Bridge Strand
- Stainless Steel Strand
- Galfan Coated Steel Strand
- Guard Rail Cable
- Barrier Strand



SIGNALS & SIGNAL HARDWARE EVERYTHING YOU NEED IN THE INTERSECTION - AND MORE

It is our mission to Stock. Let us know what we can stock for you.

At Multicom, our people, our philosophy and our commitment to customer service is the difference that allows us to provide our customers with comprehensive solutions to their traffic equipment needs.

For over 35 years, we've served municipalities and contractors throughout the country - providing a comprehensive range of products from underground to overhead. We offer same-day-shipping and delivery on your urgent requests, along with the expertise to ensure that you receive exactly what you need when you need it - first time, every time. Our manufacturers and the products they produce, have earned a strong reputation for quality and reliability.

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TRAFFIC & PEDESTRIAN SIGNALS, HOUSINGS & ACCESSORIES



Multicom stocks a wide range of McCain products -Advanced transportation solutions, trusted by agencies across the nation to safely connect people and places everyday.

Traffic Signals Housings

Built to last in any environment, McCain offers an extensive signal portfolio for most applications. The full line of solutions includes traffic signals, pedestrian signals, and signal accessories.

Traffic Signal Housings provide a durable and low-maintenance housing for standard LED modules as well as incandescent optical assemblies. Housings are compliant with the Institute of Transportation Engineers (ITE), Caltrans, and most state Departments of Transportation.



McCain Traffic Signal Housing Features:

- Poly and Aluminum
- Increase product durability in extreme or high-wind conditions
- Corrosion resistant and low maintenance
- Modular sections, one-piece, injection molded or cast
- 72-tooth serrated boss and reinforcing ribs, top and bottom
- Housings have a cast boss for mounting a 5 or 6-position terminal block; one side of terminal block with fast-on terminals, the other side with screw terminals



Pedestrian Signal Housings

- Poly and Aluminum
- Superior strength and durability
- Increase visibility and impact protection
- Use in any environment
- Remove, reverse or permanently attach door-hinge hardware
- Stainless steel hardware
- Terminal block

Multicom Stocks McCain Products, Including:

- Pedestrian Signal Housings
- Traffic Signal Housings
- Backplates
- Tunnel Visors
- and more...

CONOLITE



At the front line of any signalized intersection, Econolite's products increase safety for all roadway users, and are designed to meet or exceed the Institute of Transportation Engineers (ITE) standards. Econolite's Intelligent Transportation System (ITS) solutions ease traffic congestion, provide safer mobility and improves quality of life.





Econolite Traffic Signal Housing Features:

- Poly & Aluminum
- · Tested to ITE required wind loading on singlepoint attachment
- Reversible door left side standard, right side optional
- Doors equipped with two latches
- · Provisions for one five-position and one sixposition terminal block in each housing



Econolite Products also Include:

- Traffic Signal Housings
- Backplates
- Tunnel Visors
- and more...

TRAFFIC & PEDESTRIAN SIGNALS, HOUSINGS & ACCESSORIES



Duralight has been manufacturing LED traffic signal and commercial products since 1993. The LED signal modules not only meet the specifications of ITE and many states/local government agencies, but also are certified by ISO9001 Quality Control System. LED traffic signal modules exceed the highest level of specifications set forth by federal, state, and local government agencies.



LED Traffic Signals

- Compliance with latest ITE specifications
- Low power consumption & long operating lifetime LEDs
- Retrofit design & UV stabilized lens
- Full compatibility with NEMA controllers/conflict monitors
- Uniform incandescent appearance

Pedestrian Countdown Lamps

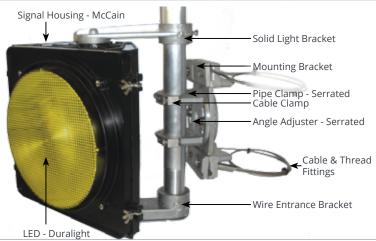
- Compliant with the latest ITE specifications
- · Retrofit design & UV stabilized lens
- Fully compatible with NEMA controllers/conflict monitors
- Conforms to standards specified in ITE LED Pedestrian Signal Modules



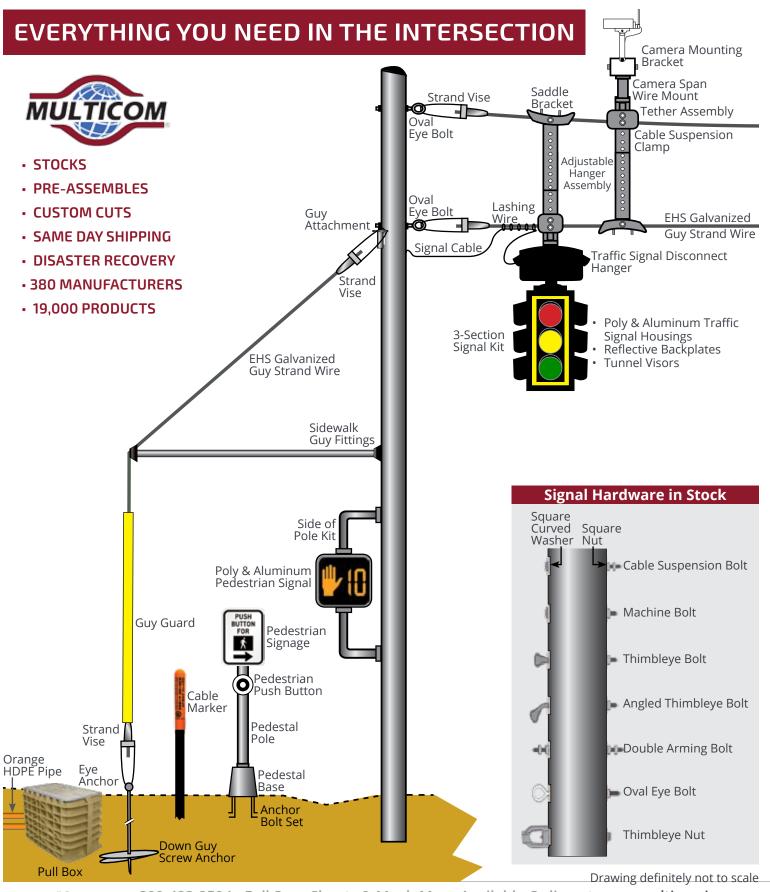
Multicom Stocks Engineered Casting by Pelco - Adding Engineered Castings products to its extensive product line, Pelco Products has expanded to encompass all types of mounting hardware, including rigid and free-swinging signal and sign mounts, traffic parts, sign brackets, lighting, flasher cabinets, push buttons, copper theft deterrent products, and much more.

Pelco / Engineered Castings Products also Include:

- Astro-Brac Signal Mountings
- Free-Swinging Signal Mountings
 Backplates
- Rigid Side-of-Pole
- Rigid Post Top
- Sign Mountings
- · Pedestrian Push Buttons
- Cabinets
- Poles & Bases
- Poles
- Traffic Accessories
- Lighting & Pole Solutions







POLE LINE HARDWARE



MacLean Power Systems is a leading manufacturer of Pole Line Hardware and and connection products, as well as insulation and protection products. Multicom stocks a wide range of MPS products, including:



Strandvise®

For deadend applications with overhead or down guy wire. Rated to hold a minimum of 90% of RBS of the strand used.



Cable Suspension Clamps

With curved ends to prevent damage to the messenger strand when turning small angles.



Crosby Clamps

A strong economical means of securing down guys and wire ropes. The steel U-bolt and malleable iron base are both hot dipped galvanized.



Bolts, Oval Eye

Double Arming Eyebolts are forged in a one piece design and are fully threaded the entire bolt length except for 2 inches under the eye.



Eyenuts

Hot Dip Galvanized, the Thimbleye, Twineye and Tripleye are all used with PH-style anchor rods.



Cable Rings & Cable Ring Saddles

Designed to support heavy cables. Available in various materials and sizes depending on application.



An integral forged eye anchor with a helix welded to the shaft and for manual or machine installation.



Guy Strain Insulators

Can be installed anywhere on the guy wire. Helps protect against stray current.



Square Nuts & Washers

Hot-dip galvanazied, locks securely into place with little effort, making removal or displacement difficult.

TRAFFIC ACCESSORIES



Pulling Grips from Lewis Manufacturing are Wire Mesh Grips that have been a popular and effective means of pulling power cables, fiber optics cables, and ropes overhead or underground and stress free suspension of power and data cables.



Lewis **Split Grip Model LSR** - Designed for all phases of suspension or pulling, where neither end of the conductor is available and 'middle of the run' application of the grip is desired.

TRAFFIC ACCESSORIES

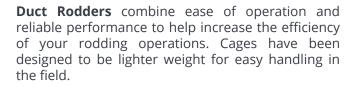
Condux International the premier manufacturer of underground and overhead cable installation tools and equipment for the telecoms and electric power markets. Condux machines allow safe, quick and easy installation of fiber optic cable and power cables.

CONDUX From Fiber Optic Cable Blowers to Pullers, and Everthing in Between

The Condux Gulfstream™ 400 Fiber Optic Cable **Blower** is designed for the installation of fiber optic cables with diameters from 0.23" to 1.13" into microduct. The Condux Gulfstream™ 400 Fiber Optic Cable Blower is ideal for "Last Mile" Fiber Installations.

> The Condux Fiber Optic Cable Puller sets new standards for safe, accurate pulling of fiber optic cables. Only the Condux puller can offer load cell torque input for the most accurate tension measuring available.





The **Power Dart Blower** provides a method to install Pull String or Pull Tape into longer duct runs without the need for an air compressor. Utilizing three independent, high volume blower motors, this unit delivers enough to blow 1/2" pull string or pull tape 2000' into conduit up to 6" in diameter.



The **TurboSlitter™** from Condux can easily split HDPE pipe with wall thicknesses ranging from 0.097 to 0.216 inches. Available in two styles, pneumatic and cordless drill attachment. The cordless drill attachment quickly adjusts to fit almost any rechargeable drill, 14-volt and larger.

Designed to meet common dimensional specifications, the **Champion** Swivels are designed for underground and overhead cable pulling applications. Clevis pin is easily replaceable. Versatile clevis provides efficient link for several applications. Stainless steel construction with 10,000 lbs. (44,480 N) load capacity.





Rope to Rope/Grip Clevis

Champion Swivels

TRAFFIC ACCESSORIES



A leading manufacturer of Pipeline Markers, Utility Signs and Marker Posts with over 25 years of experience in identifying and marking buried utilities. Products are made from formulated engineered resins to perform in harsh weather conditions to identify, prevent damage and dangerous accidents.



PRO-MARK Cable and Pipeline Markers





ETCO Specialty Products, Inc.

ETCO is a manufacturer of specialty fittings for the traffic and utility industries



Single E-Loc & Compression Coupling

The Etco E-Loc® Coupling is a compression coupling used to provide a watertight / airtight connection in buried or restrained applications. The ability to join dissimilar materials, such as, PVC, HDPE, fiberglass, or metal makes

the E-Loc® a versatile coupling for the telephone, electrical, and cable industries. Patented. E-Loc® Couplings are available to fit conduit sizes from $\frac{1}{2}$ " through 8". Watertight to 200 psi restrained on smooth wall, ribbed, and corrugated duct.



WL Plastics is the ideal producer of polyethylene pipe in North America. HDPE pipe provides durability to avoid the high cost of replacing or rehabilitating. The Company's best-in-class manufacturing processes and experienced production personnel help make WL one of the most efficient producers of HDPE pressure pipe.



SCHONSTEDT INSTRUMENT COMPANY

Making Locating Easier Since 1953

Schonstedt stands apart as manufacturer of rugged and dependable underground locators. Schonstedt's Heliflux® magnetic sensor technology is unsurpassed for its environmental stability and ability to detect ferrous objects to extreme depths.



Maggie combines the best features of two flagship Schonstedt products: the sensitivity and precision of the GA-52Cx, and the single-handed operation of the

- Ergonomic & Durable
- Dust & Water Resistant (Rated IP54)
- · Easy access battery removal
- HeliFlux® sensors
- 7-year warranty

Maggie Magnetic Locator - Highest Sensitivity & Most Versatile



Heavy Duty Orange Cured Concrete Diamond Blades

- Wide variety of Diamond Depths
- Various segment depths and diamond concentrations
- · Fast cutting blades that work well with a wide range of high or low HP saws
- Combines long life performance while maximizing your blade dollars



SEALANT & LOOP ACCESSORIES





STAT-A-FLEX® is a two part polyester resin loop sealant formulated for encapsulating and sealing traffic signal wire in road surfaces. STAT-A-FLEX® product can be made to resemble cement coloring as well as black for the desired circumstances. STAT-A-FLEX® is easily mixed and applied. It cures quickly and produces a tough weather and chemical resistant seal. STAT-A-FLEX® provides maximum protection of all embedded signal wire. STAT-A-FLEX is approved for use in most state DOT's for public roadway applications.







Bondo® Traffic, P-606 Flexible Loop Sealer with Hardener is highly durable and remains permanently flexible. This loop sealant can withstand the corrosive effect of road salts, automotive fluids, jet fuel, gasoline and extreme weather conditions. Bondo has been engineering and manufacturing professional products for the traffic control industry for over 37 years. During this time Bondo has remained committed to understanding customers' needs and then developing products that meet and exceed those needs.



3M™ DBR/Y-6 Series Direct Bury Splice Kit electrically connects 2 or more pre-stripped copper wires and moisture seals the connection for direct-burial applications. The flame-retardant kit seals the wiring that is rated up to 600V. It is suitable for water-intensive applications such as golf courses, irrigation controls and outdoor lighting. The kit consists of a 3M™ Spring Connector R/Y+ and a high impact, UV-resistant tube prefilled with moisture-resistant grease. UL-listed for direct bury and rated for 600V.

PULL BOXES





Strength, performance and quality have been hallmarks of all Hubbell underground enclosure brands for more than 40 years. The industry leader for applications in non-deliberate traffic areas, these enclosures provide rugged and cost-effective protection for a variety of electric utility, commercial & industrial, communications, water and gas equipment while meeting the specific demands of our industry.



Hubbell Quazite Pull Boxes employ a Polymer concrete made from select-grade aggregates in combination with a polymer resin system. When combined through a process of mixing, molding, and curing, an extremely powerful cross-linked bond is formed. Precast polymer concrete is reinforced with fiberglass to give it additional strength and rigidity.



Polymer concrete cover

Light weight HDPE Base

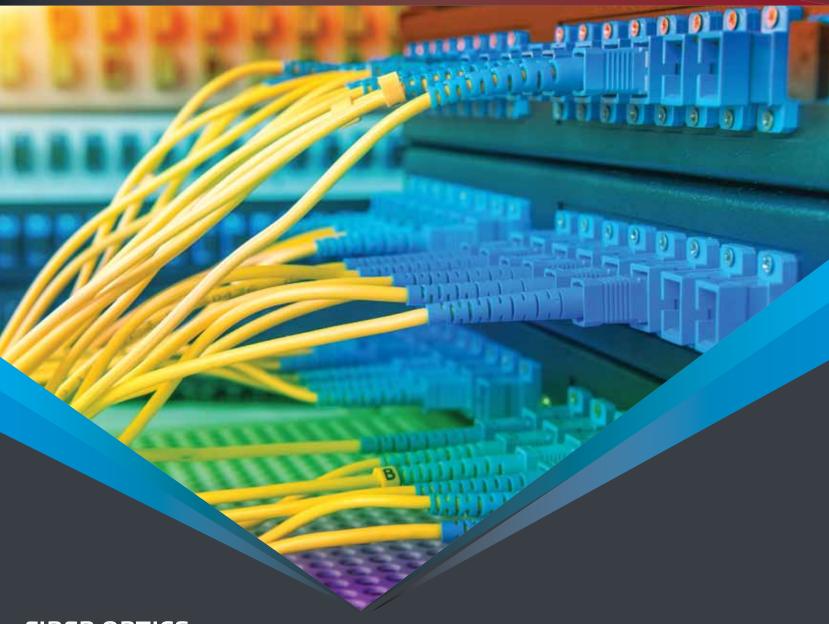
Pencell Pull Boxes use structural foam molded High Density Polyethelyne (HDPE), a **light weight**, high strength plastic molding process that provides outstanding structural integrity and durability. HDPE enclosures are mated with covers made from a variety of materials: HDPE, polymer concrete or steel. This combination creates a highly versatile choice for underground utility enclosures where low weight and high strength are necessary.



Martin Enterprises manufactures underground utility enclosures utilizing both fiberglass reinforced polymer and polymer concrete technologies. They employ an extensive quality control criteria insuring that all of the applicable performance standards are adhered to during every step of the manufacturing process. Superior product quality and service are the cornerstones of their Organization. Martin Enterprises feels very strongly in its support of enterprises that embrace the "Buy American" philosophy.



Martin Enterprises Polymer Concrete Boxes consists of polymer concrete body incorporating a polymer concrete reinforced ring and cover. Each cover allows easy access to the box via standard or lockable hardware (optional) with a stainless steel lifting pin(s).



FIBER OPTICS

Today's ultra-high tech networks provide the foundation necessary for delivering a wide spectrum of advanced interactive services to consumers. Multicom's fiber optic products offer flexibility, scalability and manageability, giving them timeless value and cost-effectiveness to adapt to an ever-evolving market.

Public networks for video, data and voice are using more and more optical fiber. Fiber-based communications networks have clear advantages over other media in cost, reliability, and capacity, spurring increased deployment on high-density, high capacity networks. Smart public network applications are making wide-spread and growing use of fiber optics. This growth means that millions of fibers are terminating in Central Offices (COs) and cable-TV operation centers. Multicom stocks a full line of fiber optic networking and termination products for every application - large or small.

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FIBER OPTIC CABLE

Future-proof fiber optic cable engineered for today's super high-speed and high-performance networks

Easy Cable Entry & Preparation

- 12 fibers per tube construction up to 144 fiber designs allow easy termination and mid-span fiber access
- Flexible buffer tubes enhance mid-entry

Versatile Installation & Use

- Tailored designs span distances
- Easy mid-entry is ideal for FTTx distribution applications

Flexible Routing & Customization

- Flexible buffer tubes simplify routing, storage and prep
- · Available in singlemode fiber, loose tube

Reliable Lifetime Performance

- · Custom engineered for operation under full load
- Guaranteed standards-based performance



ADSS

Multicom's All-Dielectric Self-Supporting (ADSS) Loose Tube Fiber Optic Cable is the best choice for aerial cable spans. This cable's low-cost installation, compact size and specialized design make it the ideal, cost-effective cabling solution for Fiber-to-the-Home (FTTH) and self-supporting aerial applications.

MADSS012SM-XXX

Length: 350 or 600 Ft. Span
SM: Single Mode, MM: Multimode
Fiber Count: 12, 24, 48, 96, 144

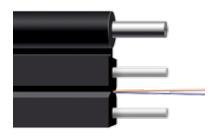


Armored

Highly durable and reliable for underground and lashed aerial installations as well as general outside plant installations, including direct buried in harsh environments.

MARMLT012SM

└─SM: Single Mode ----Fiber Count: 12, 24, 48, 96, 144



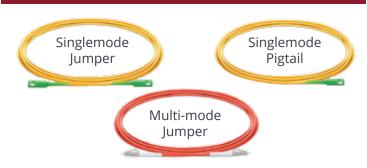
Fiber Optic Drop Cable

Multicom's Fiber Optic Drop Cable uses special low-bend-sensitivity fiber B6 (G.657A1), providing greater bandwidth and excellent communication transmission properties. Two parallel strength members (non-metallic FRP), ensures the optical fibers are protected. The low smoke zero halogen (LSZH) flame-retardant jacket allows for safety and environmental protection. The cable is light weight with a flute design which can be easily be stripped and spliced, simplifying installation and maintenance. The messenger enhances the overall tensile strength of the cable.





JUMPERS & PIGTAILS



| Singlemode Fiber with FC, ST & SC Connectors | | | | Multi-mode Fiber |
|----------------------------------------------|-------------------------------------|--|-----|------------------|
| Contact Mode | PC UPC APC | | PC | |
| Insertion Loss (dB) | ≤0.2 | | | ≤0.3 |
| Fiber Grade | 051, 052 | | | OM1, OM2, OM3 |
| Temperature (°C) | -40 to +80 | | | -40 to +80 |
| Repeatability (dB) | ≤0.1 | | | ≤0.1 |
| Interchange (dB) | ≤0.2 | | | ≤0.2 |
| Return Loss (dB) | ≥45 ≥50 ≥65 | | ≥35 | |
| Cable Diameter | 2mm, (0.9mm and 3mm also available) | | | |
| Ferrule Material | Zirconia Ceramic | | | |

Multicom manufactures a large selection of singlemode and multi-mode fiber optic jumpers and pigtails with a selection of industry standard connectors.

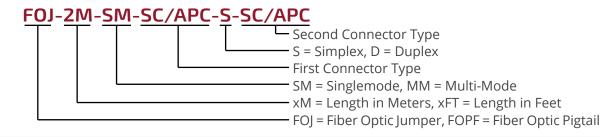
Features:

- Corning fiber used in all jumpers and pigtails
- Custom lengths
- 2mm jacket for more flexibility and capacity in tight spaces
- Meets all standard panel interfaces
- All cables serialized and test results are recorded
- High bandwidth, high tensile strength, small bend radius

Applications:

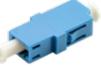
- Trunking lines direct to telecommunication closets
- Fiber patch panel within communication closets
- Links between electronic equipment and adapter panel





MATING SLEEVES







SC/APC to SC/APC LO

LC/UPC to LC/UPC

FC/UPC to FC/UPC

Mating Sleeves with high-precision sleeves enable reliable mating of the ferrule diameters, ensuring low insertion and return loss. All connector types available.



ATTENUATORS



Fixed-value Attenuators reduce the signal level without appreciably distorting the waveform. Available in 1dB increments. All connector types available.

FOATT-XX/XXX-XDB

L Decibels (dB)

Connector Type

PLC OPTICAL SPLITTERS



The Multicom fiber optic line of PLC Splitters include Tube, Box, LGX Cassette and Rack Mount configurations. They offer superior performance and field-proven reliability in harsh environments.

Our Planar Lightwave Circuit (PLC) splitters are fabricated using silica optical waveguide technology. Features include small size, high reliability and a wide operating wavelength. The PLC splitter is widely used in all fiber optic networks to realize optical signal power splitting. All products are GR-1221-CORE compliant.

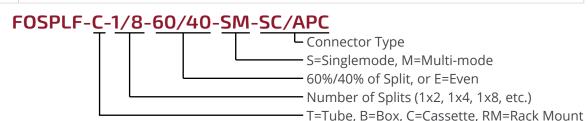
Features:

- · Corning fiber
- · Low insertion Loss
- Even or various splitting ratios
- 1x2 through 1x64 configurations
- Bidirectional, compact
- Environmentally stable
- Wide wavelength range
- High uniformity
- Telcordia GR-1221-CORE compliant

Applications:

- Traffic control networks
- Long-haul tele/data communications
- Fiber optic equipment and systems
- CATV systems
- · Local Area Network, PON, and FTTH
- Fiber sensors
- DWDM networks

| Parameter | 1x2 | 1x4 | 1x8 | 1x16 | 1x32 | 1x64 |
|------------------------------------|-----------|----------|----------|----------|------------|----------|
| Operating Wavelength (nm) | 1260-1650 | | | | | |
| Insertion Loss Typical/Max (dB) | <4.0/4.2 | <7.2/7.5 | <10.5/11 | <13.5/14 | <16.5/17.5 | <19.5/21 |
| Loss Uniformity (dB) | <0.4 | <0.6 | <0.8 | <1.2 | <1.7 | <2.0 |
| Return Loss (dB) | >50 | | | | | |
| Polarization Dependent Loss (dB) | <0.3 | | | | | |
| Directivity (dB) | >55 | | | | | |
| Wavelength Dependent Loss (dB) | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 |
| Operating/Storage Temperature (°C) | -40 to 85 | | | | | |



FIELD-INSTALLABLE FIBER OPTIC CONNECTORS



| Parameter | Specification |
|-----------------------|-----------------------------------------------------------------|
| Connector Type | SC/LC/FC, Simplex |
| Cable Diameters | 0.9, 2.0, 3.0mm |
| Fiber Mode | Singlemode / Multi-Mode |
| Polish | UPC / APC |
| Insertion Loss | UPC: ≤0.35dB, APC: ≤0.35dB |
| Return Loss | UPC: ≥45dB, APC: ≥50dB |
| Tension Test | ≥50N |
| Operating Temperature | -40°C ~ +75°C |
| Compliance | Designed to Telcordia GR-20-CORE, GR-326 and TIA/EIA 568C, RoHS |

The Multicom Field-Installable Fiber Optic Connectors feature a pre-polished ferrule (UPC/APC), that couples to the fiber being terminated by precision mechanical alignment, insuring low loss with a proprietary gel.

Offering convenience and stability, the assembly of the connector requires only normal fiber preparation tools and minimal space, making them easy to prepare in the field in minutes. Just strip the buffer, cleave and clean the fiber, and then insert the fixed-length fiber through the ferrule of the connector.

Features:

- No epoxy, fiber polishing, special tools or fusion splicer required
- Quick and easy fiber termination in less than two minutes
- Precision mechanical alignment insures low insertion loss
- Superior optical performance
- Durable components design for convenience and reusability
- Pre-installed fiber in ferrule for on-site assembly
- Uses proven, molded v-groove technologies
- Allow optical continuity to be verified by use of Visual Fault Locator (VFL)

M-FOCON-FI-SM-XX/YYY-F

Fiber Diameter (mm) - 0.9, 2.0, 3.0

Connector Type - XX=SC, FC, LC / YYY=UPC, APC

SM=Singlemode, MM=Multi-Mode

SPLICE SLEEVES



The 60mm translucent plastic tube and stainless steel rod Fiber Optic Splice Sleeves are designed to prevent stress and protect fusion fiber optic splices in both field and factory operations.

Features:

- Provide protection and increased stability to splices
- 60mm, heat activated, translucent

MUL-FO-SP-SLEEVE

FIBER OPTIC TOOLS & TEST EQUIPMENT

FUSION SPLICER



| Parameter | Specification |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Average splicing time | 7 seconds - Fast Mode |
| Average heating time | 9 seconds - Fast mode |
| Warranty | 3 Yrs Domestic / 1 Yr International |
| Applications | SM (Singlemode) - ITU-T G.652 MM - (Multi-mode) - ITU-T G.651 DS - (Dispersion Shift) - ITU-T G.653 NZDS - (Non-Zero Dispersion Shift) - ITU -T G.655 |
| Splice loss | SM - 0.02dB, MM - 0.01dB, DS - 0.04dB, NZDS - 0.04dB |
| Return loss | > 60dB |
| Operation mode | Full auto, semi-auto, manual |
| Fiber aligning method | Core, clad, manual alignment |
| Fiber diameter | Cladding diameter: 90 ~ 150µm, coating diameter: 125 ~ 1000µm |
| Fiber cleaved length | 10 ~ 16mm (coating diameter: <250μm), 16mm (coating diameter: 250 ~ 1000μm) |
| Lens magnification | 200x, 400x |
| Display | 5" Color High Definition LCD |
| Battery capacity splice-heat cycles | 260 typical |
| Battery full charge time | 3 hours - Unit is able to operate/ splice during charging process |
| Battery life | 300 ~ 500 charging cycles, quick- change lithium |
| Power display | Real-time remaining power is displayed on screen |
| Electrode life | 3,500 splice cycles typical, easily replaceable electrodes (included) |

The tough and rugged Multicom MUL-FSPLICE-200 Fiber Optic Fusion Splicer is drop/impact, dirt/dust and water resistant - and comes with a 3 year warranty. The splicer employs high-speed image processing and special positioning technology allowing the fusion splicing to be completed in a FAST 7 seconds and can heat shrink in an ULTRA-FAST 9 seconds. The splicer is compact in size, lightweight, and is ideal to work just about anywhere including harsh outdoor environments, dark and remote worksites.

Features:

- FAST 7 Second Splicing (optional)
- ULTRA-FAST 9 Second Heat Shrinking (optional)
- 3 Year Warranty
- Drop/Impact, Dirt/Dust and Water Resistant
- State-of-the-art core-to-core fiber Profile Alignment System
- Fully-automatic, semi-automatic and manual operating modes
- Automatic detection of fiber cleaved face quality
- Automatic display of cleaved fiber and the offset angles
- Automatic analysis and estimation of splice loss
- Automatic detection of bad/faulty splice
- Automatic detailed data report record and memory storage for each splice up to 10,000 splices
- Automated 2N splice tension test
- Handy, easy-to-carry, solid and durable with shockresistant design

Fiber Optic Fusion Splicer Kit Includes:

- MUL-FSPLICE-200 Fiber Optic Fusion Splicer
- · Universal fiber holders
- Quck-change Lithium battery
- · Precision optical fiber cleaver
- USB thumb drive with Operating Manual
- Fiber stripper
- Sheathing stripper
- Tweezers
- Spare electrodes
- Cleaning blower bulb
- Heat shrink cooling tray
- · Heavy duty carrying case with workshelf
- AC adapter

MUL-FSPLICE-200

FIBER OPTIC TOOLS & TEST EQUIPMENT

OPTICAL TIME DOMAIN REFLECTOMETER



The hand-held Optical Time Domain Refectometer MUL-OTDR-1000 and MUL-OTDR-1100 are a new generation of intelligent optical-fiber test equipment. OTDRs are widely used in the construction, maintenance, measurement, and emergency repair of optical-fiber communication networks as well as the development, manufacturing and measurement of optical fibers and optical cables.

Multicom's OTDRs are specially designed for tough outdoor jobs. Lightweight, easy operation, low-reflection LCD and 12 hours of battery life make it perfect for testing fiber optic cable in the field.

| Specification | MUL-OTDR-1100 | MUL-OTDR-1000 | |
|--------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------|--|
| Wavelengths | 1310 / 1550nm Singlemode | | |
| Dynamic Range | 35 / 33 dB 26 / 24 dB | | |
| Event Dead Zone | 0.8m/1.5m (Typ) | | |
| Attenuation Dead Zone | 4m | | |
| Distance Resolution | 0.01m | | |
| Testing Distance | 100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km, 200km | 100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km | |
| Pulse Width | 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1µs, 2µs, 5µs, 10µs, 20µs | | |
| Sampling Points (max) | 128,000 | | |
| Distance Accuracy | ± (1m + measuring distance x 3 x 10 ⁵ + sampling resolution)M | | |
| Visual Fault Locator | Included, 650nm, 10mW, Class III B | | |
| Optical Light Source | 1310nm, 1550nm Not Included | | |
| Optical Power Meter | 850, 1300, 1310, 1490, 1550, 1625, and 1650nm, input -60dBm to +5dBm | Not Included | |
| Smart Network Analysis | Included | Not Included | |
| Fiber Inspection | Software included, probe purchase required | | |
| Display | 7" TFT Touch Screen | | |
| Languages | User-selectable English / Spanish / Portuguese / Others | | |
| Bellcore SOR File Output | Yes (Issue 2, SR-4731) | | |
| Data Storage | Internal memory: 4GB (about 40,000 test traces) | | |
| Battery Life | ~ 12 Hours | | |

Features:

- Auto/manual testing
- Integrated design with long battery life
- Outdoor enhanced, smart and rugged
- 7" anti-reflection LCD touch screen
- Support multi-language display and input
- Visual Fault Locator (VFL)
- The MUL-OTDR-1100 includes Light Source, Power Meter & Smart Network Analysis

Applications:

- FTTX test with PON networks
- CATV network testing
- Access network testing
- Live fiber troubleshooting

MUL-OTDR-1100

- Models: 1000, 1100

OPTICAL POWER METER & VISUAL FAULT LOCATOR



| Parameter | Specification |
|-------------------|---------------|
| Wavelength range | 800 to 1700nm |
| Connectors | SC, FC, ST |
| Measurement range | -70 to +10dBm |
| VFL wavelength | 650nm |
| VFL power | >1mW |
| Detector type | InGaAs |
| Uncertainty | ±5% |

The MUL-OPM-VFL-1 Optical Power Meter (OPM) & Visual Fault Locator (VFL) is a handheld optical power meter which also conveniently incorporates a laser-based Visual Fault Locator - all in a single handheld unit. This ergonomically designed instrument uses advanced technology for outstanding functionality and durability.

The OPM uses microprocessor control and includes a variety of advanced features and user selectable settings. It is used for optical signal power measurement at a variety of wavelengths from 800-1700nm. The OPM can be used to inspect optical fiber and connectors for potential failures and issues when connected to an optical interface and/or with a singlemode or multi-mode optical fiber.

Features:

- Use with a wide variety of wavelengths from 800 to 1700nm
- 48 hours of operation (typical)
- · Standard AA alkaline batteries
- · Rugged and weather resistant
- Self-shutoff, backlight

MUL-OPM-VFL-1

VISUAL FAULT LOCATOR



| Parameter | Specification |
|-----------------|--------------------------------|
| Operation | 2 to 4Hz |
| Wavelength | 650 ±10nm |
| Power output | 0.6mW typical |
| Distance range | 5Km |
| Operation modes | Continuous Wave (CW)/Off/Pulse |
| Laser class | 1 |

The MUL-VFL-1MW is the easiest way to identify fibers from end to end and locate polished connector endfaces. The red laser shines through most yellow-jacketed fibers to help you precisely identify breaks, bends, faulty connectors, splices and other causes of signal loss. Reaching of up to 5 km, the MUL-VFL-1MW locates faults visually by creating a bright red glow at the exact location of the fault on both singlemode or multi-mode fibers.

Robust design: Due to its small size and durable yet lightweight design, this handy tool can accompany you to the most demanding environments. To ensure ruggedness, it features rubber seals, a fully enclosed laser head and a long-lasting operations switch. It has been tested to provide reliable operation under intensive use and harsh conditions.

Features:

- Bright red laser at 650 ±10nm
- Continuous Wave (CW)/Off/Pulse operation
- Batteries last 50 hours (typical)
- Standard AAA alkaline batteries
- Rugged and weatherproof
- 2.5mm universal connector

MUL-VFL-1MW

HIGH PRECISION FIBER OPTIC CLEAVER



| Parameter | Specification |
|---------------------|-------------------------------------|
| Fiber count | Single fiber, up to 12 ribbon fiber |
| Cleaving length | 10mm |
| Fiber holder | Universal, interchangeable |
| Application fibers | Singlemode, Multi-mode |
| Bare fiber diameter | 125μ (250-900mm coating) |
| Cleaving angle | 0.5° with single fiber |
| Blade life | 48,000 fiber cleaves |
| Blade positions | 3 heights, 16 rotating positions |

The MUL-FO-CLEAV-200 is ideal for single fiber and ribbon fiber FTTx applications. The 16-position blade yields 48,000 single-fiber cleaves, or 4,000 12-fiber ribbon cleaves before requiring replacement.

The easy-to-use precision cleaver provides reliable, repeatable results and includes safety features to protect the operator and extend the life of the tool.

Features:

- Compact body and high precision design
- Applicable for single fiber and up to 12-count fiber ribbon
- For use on Singlemode and Multi-mode fiber
- 48,000 fiber cleaves life (1,000 fibers x 3 heights x 16 positions)
- Includes hard carrying case and additional fiber holder

MUL-FO-CLEAV-200

FIBER OPTIC CLEAVER



| Parameter | Specification | |
|---------------------|----------------------------------|--|
| Fiber count | Single fiber | |
| Cleaving length | 10-16mm | |
| Fiber holder | Universal, interchangeable | |
| Application fibers | Singlemode, Multi-mode | |
| Bare fiber diameter | 125μ (250-900mm coating) | |
| Cleaving angle | 0.5° with single fiber | |
| Blade life | 36,000 fiber cleaves | |
| Blade positions | 3 heights, 16 rotating positions | |

The MUL-FO-CLEAV-100 is ideal for single fiber FTTx applications. The 16-position blade yields 36,000 single-fiber cleaves before requiring replacement. This easy-to-use precision cleaver provides reliable, repeatable results.

Features:

- Compact body and high precision design
- Applicable for single fiber
- · For use on Singlemode and Multi-mode fiber
- 36,000 fiber cleaves life (1,000 fibers x 3 heights x 12 positions)
- Includes soft carrying case and fiber guide tool

MUL-FO-CLEAV-100

FIBER OPTIC CLEANER - CASSETTE

MUL-FO-CLEAN-CASS



The MUL-FO-CLEAN-CASS Fiber Optic Cleaner Cassette is the most effective high-end cleaning solution available. This cassette cleaner features a 25 foot densely-woven dry cloth reel which provides superior cleaning performance while minimizing static charge. The 25 feet cloth can be used over 500 times.

Features:

- Minimizes static attraction
- Ultra clean micro-fiber cloth captures debris and other contamination
- The cloth is robust, it does not fray or leave any fibrous materials behind

FIBER SHEARS

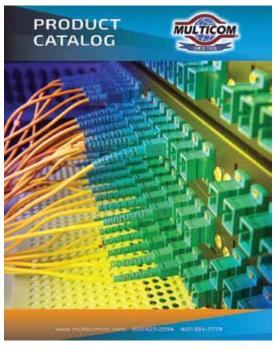


MUL-FO-SHEAR-K

The MUL-FO-SHEAR-K Fiber Optic Kevlar Cutters, or Shears, are specifically designed for cutting fiber optic kevlar. The cutting blades are micro-serrated, especially designed to avoid sliding or slipping when cutting kevlar. The handle is made from molded and durable plastic making these shears easy to grip and operate.

Features:

- · Made of carbon steel
- · Ergonomic handle



Multicom's New Products are Leading the Way

By stocking 19,000 products from more than 380 of the world's leading manufactures – including our own comprehensive line of indoor and outdoor fiber optic and networking products – Multicom has nearly all of the products needed by todays communication networks. For a comprehensive look at all of our fiber optic and voice/video/data offerings, please ask for a free copy of the **Multicom Product Catalog**.

See all of the Multicom Products from these categories:

- OUTSIDE PLANT
- FIBER MANAGEMENT
- FIBER OPTIC HEADEND & TERMINATION
- SATELLITE DISHES & LNBFs
- INDOOR PRODUCTS
- IT / DATA PRODUCTS
- TOOLS & TEST EQUIPMENT

THE FULL MULTICOM PRODUCT CATALOG CAN BE DOWNLOADED AT: WWW.MULTICOMINC.COM/CATALOG

TRAFFIC MANUFACTURERS - LINE CARD

Multicom is Proud to Represent Multicom Products, and the Following Manufacturers:







































CONOLITE







































SCHONSTEDT









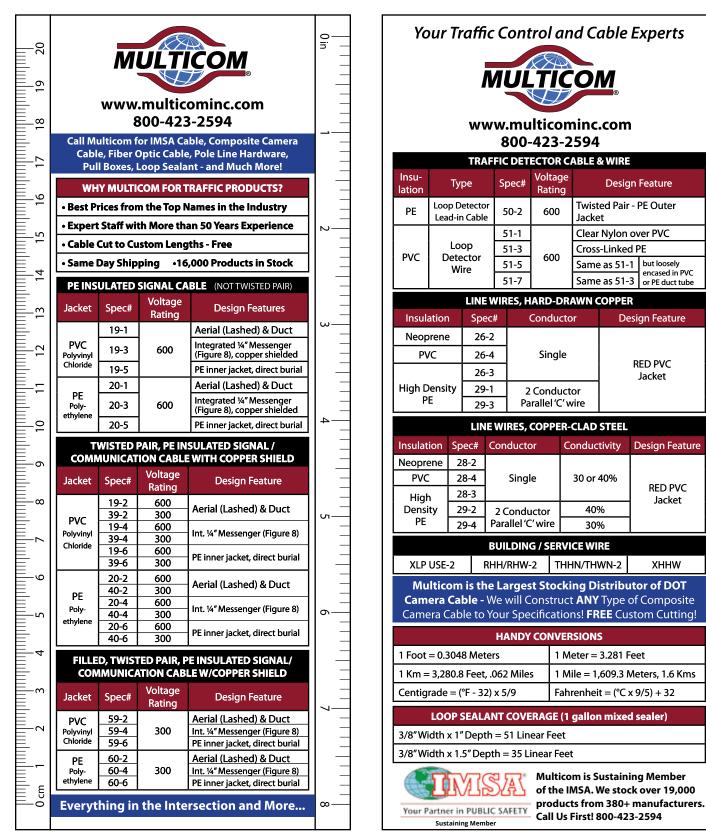








TRAFFIC CONTROL EXPERTS - REFERENCE CARD



The Multicom Pocket Reference Card is a handy to have with you all the time. They are made from durable plastic and fit in your pocket. Give us a call at 800-423-2594 and ask for one - they're free!

Design Feature

but loosely

Design Feature

RED PVC

Jacket

Design Feature

RED PVC

Jacket

encased in PVC

or PE duct tube

Twisted Pair - PE Outer

Clear Nylon over PVC

Cross-Linked PE

Same as 51-1

Same as 51-3

Conductivity

30 or 40%

40%

30%

1 Meter = 3.281 Feet

1 Mile = 1,609.3 Meters, 1.6 Kms

Jacket



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