# Cable Solutions Custom Cable

Rugged Cable for Harsh Environments



APPLICATION-SPECIFIC RELIABLE RUGGEDIZED CUSTOM ENGINEERED LOW MINIMUM ORDERS FAST DELIVERY



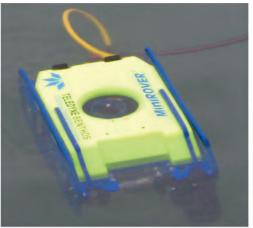
## TELEDYNE CABLE SOLUTIONS Everywhereyoulook™

## Markets Served



#### MEDICAL INSTRUMENTS

TCS manufactures cable ideally suited for medical diagnostic equipment. Designs provide for: high temperature autoclave, lead free, antimicrobial, cut and chemical resistant, and are highly flexible.



#### CUSTOM MARINE CABLES

Serving the geophysical industry, TCS manufactures high performance ROV tethers, ROV video umbilicals, and towed sonar tethers.



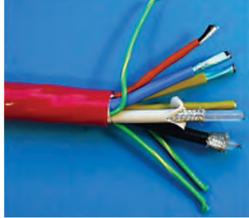
#### CUSTOM CONTROL CABLES

Industrial Automation, Fieldbus, Lighting, Marine Optics & Robotics. TCS provides large gauge for long runs and low voltage drop, with a high strand count for continuous flex. Low capacity, low-skew, shielded and ROHS compliant.



#### SENSOR CABLES

Applications include venting, power, video, control, optics, sensors for seismic, temperature, humidity, gas, pressure, and more. Customized for Profiling, In-Situ, Integration, Industrial, Detection/Warning.



#### HEAVY INDUSTRIAL EQUIPMENT

TCS manufactures cable for harsh environments such as those common to heavy construction machinery, boomlifts, and industrial robotics. Designs provide for: high and cold temperatures, abrasion and cut resistance, chemical and oil resistance, use in articulating joints, and wet or submersible equipment.



PUSH ROD INSPECTION CABLES

TCS manufactures a variety of push rod cables for the video inspection equipment industry. TCS will manufacture inspection camera cables to industry standards or will build in features that fit unique applications.

## Why Teledyne Cable Solutions?

#### WIRE & CABLE TYPES

- Custom
- Multiconductor •
- **Twisted Pair** .
- **Balanced Pair**
- Coaxial •
- **Optical Fibers**
- . Hybrid
- Composite
- High Flex
- Power Cable

#### WIRE & CABLE CONDUCTORS

- •
- Ultra Fine & Large Gauge Copper & High Strength Alloys Copper Clad Steel Plating: Tin, Silver, Nickel .
- .
- .
- Solid to High Count Flexible Stranding
- Thermocouple Wire
- Magnet & Litz Wire .

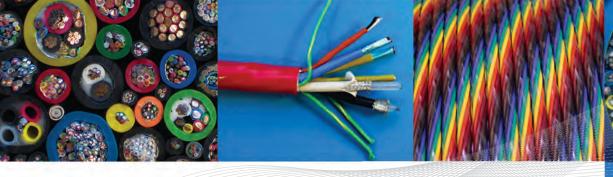
#### WIRE & CABLE Shielding

- Braided I Served I Spiral .
- Foil & Hybrid •
- Vapor Barriers
- Copper & Alloys
- Conductive & Static Dissipative Tapes
- Conductive Fabrics
- **Tensile Members**

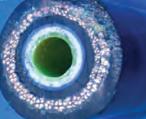












## It all starts with ..... CUSTOM CABLE SOLUTIONS

#### Capabilities & Materials

#### Conductors

- Copper & High Strength Alloys
- Tinsel Wire
- Magnet Wire
  Fiber Optics (Sin
- Fiber Optics (Single Mode, Multimode, Steel Tubed)
- Fluid & Vent Tubes, among others

#### Shielding

- RFI & EMI Tapes & Braids (Serve or Interwoven)
- Utilizing Flat & Round Copper
- Stainless Steel
- Bronze
- Aramid Fibers & Textile, among others

#### Jackets

- Fluoropolymers (FEP, PFA, Tefzel, etc.)
- X-Link
- Expanded (Foam)
- Halogen Free
- Polyolefins
- Polypropylene
- Polyethylene
- TPR, TPE-0
- Polyurethane
- PVČ
- Tape Wrap
- RoHS & WEEE Compliant

#### Insulations

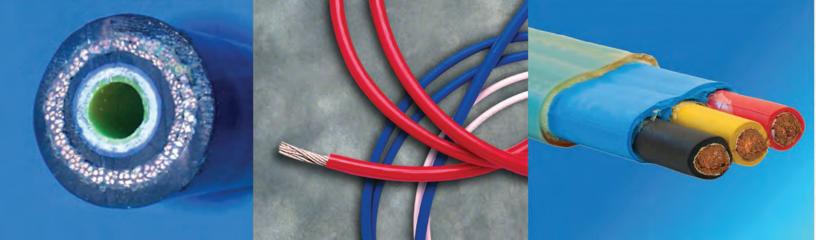
- Fluoropolymers (FEP, PFA, Tefzel, etc.)
- X-Link
- Halogen Free
- Polyolefins
- Polypropylene
- PolyethyleneTPR, TPE-0
- IPR, IPE-0
   Dob unot box
- PolyurethanePVC
- Tape Wrap
- RoHS & WEEE Compliant

#### Construction

 Multi-conductor, shielded pairs, pairs with steel tubed fiber or copper conductors with fiber optics, coaxial conductors & aramid strength fibers -whether traditional construction or hybrid TCS can engineer the solution.

#### **Functional Enhancements**

- Additional construction enhancements are available depending on your application.
- Strength Members Aramid fibers such as Kevlar & Vectran, Polyester, Nylon, Fiberglass Rods, Stainless Steel
- Waterblocking Silicon, Hot Melt Products, Water Swellable Tapes & Fillers
- Controlled Buoyancy
- Coil Cord



Circuit Identification

- Spiral & Longitudinal Stripe
- Numbering
- Lettering
- Sequential Markings

## EXTRUDED PROFILE CABLE

#### DESIGN FOR PROFILE

Profile is defined as the outline or shape of an object when viewed on a vertical plane. For cables, this is typically a round or circular shape. That doesn't have to be the case, however, and TCS can design and manufacture a custom profile that can contribute greatly to the successful implementation of your cable application.



Flat, rectangular, figure-8 or any other profile you may need; our in-house extrusion tool design team can engineer a solution for your application no matter what your specific requirements.



TCS further delivers value through low minimum order quantities (MOQ's) and fast deliveries. While most manufacturers require 10,000' MOQ's on custom cable, we can produce as few as 100' in just a few weeks.



Remember to consider the optional physical profile when developing your cable design and make your cables FIT your application. Call today and let us help solve your cabling issues.



Outriggers allow high pull forces with no cable strain



Square profile can reduce stacking space by 30%



Flat profile for high flex or to reduce trip hazards

#### KAPTAMID - STRONG BY DESIGN

Many winch systems apply an extreme force on the external jacket layer while retracting, deploying payload or during deployment. TCS trademarked KAPTAMID cable captivates the aramid layers to prevent cable core elongation, and tears or wrinkles in the cable jacket.

### C1 D2 (CLASS 1 DIVISION 2)

"Cables for use in Hazardous locations - Class 1 Division 2" TCS manufactures a CSA and ETL agency approved, custom engineered insulation and jacket material that meets the requirements of Cl 02 without the need to install in conduit.

# FEATURED PRODUCTS

#### **COIL CORDS**

Utilizing our 50 years of cable manufacturing experience, TCS understands the requirements to gain superior retractability and memory. With our internal custom cable manufacturing, we can convert most linear cable constructions into retractable coil cords.

#### HYBRID

TCS has the ability to combine any functional element (power, video, control, pneumatic, differential digital, SM, and MM optics, etc.) within the single cable jacket.

### 150° SERVICE CABLE

A highly engineered crosslinked thermoplastic elastomer that replaces traditional crosslinked rubber. This insulating and jacket material is targeted for applications where heat and oil resistance exceeds traditional processing thermoplastics. Rubberlike flexibility down to-40°C and heat stabilized rated at 1000 hours at 150°C, this material replaces traditional cross- linked rubber at a significantly lower cost.

## MIL-DTL-3432H

Military Power and Special Purpose Cables (300V and 600V)





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**Teledyne Cable Solutions (TCS)** is part of Teledyne Oil & Gas, an alliance of Teledyne Technologies companies that delivers high-reliability engineered solutions for interconnect, data networking and monitoring applications to OEM or end users.



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