

# SAFE-T-LANYARD

## LANYARD PULL ROPE STL-10-V



SAFE-T-LANYARD Vectran™ is a UV Stable Red Polyurethane coated LCP (Liquid Crystal Polymer) 3mm ID x 5mm OD multifilament melt spun yarn rope, designed and manufactured for the purpose of a lanyard emergency stop pull wire system.

SAFE-T-LANYARD is designed to comply with the Machinery Standards AS 4024.3610 2015 Clause 2.10.6.1 Pull wire emergency stops, general (Pull wires should be coloured red) and 2.10.6.2 (e) Materials used are of adequate strength, protected against environmental conditions and suitable for handling without additional protection being worn by operators. Note: if the environment the pull wire is located in may cause visual loss of it's location then consideration should be given to add additional notification via reflective signs at no more than 30m intervals. See STP-ES, STG-ES or STL-ES.

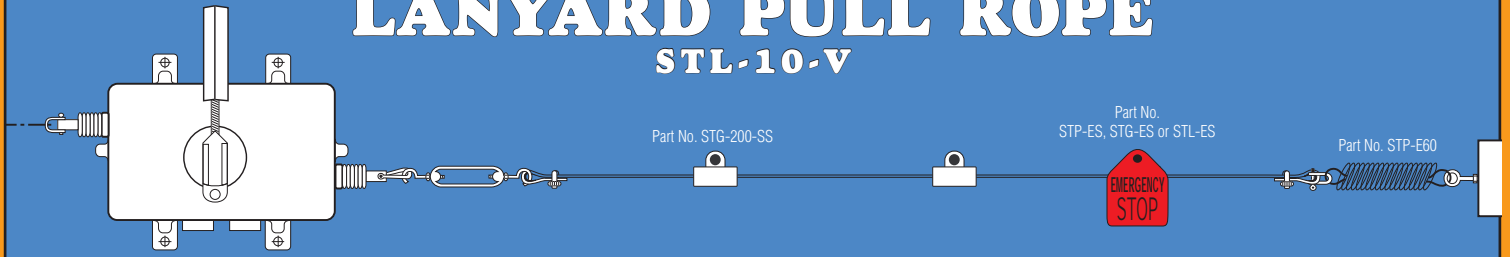
The Actuator of a Lanyard switch is the Pull Wire thus it is made in a Red UV stable Polyurethane so to with stand the harsh environments that the wires are placed in, without cracking of the cover or fading of the colour. Once the SAFE-T-LANYARD is fitted to a SAFE-T-PULL Lanyard Switch and run through SAFE-T-GUIDE rope guides and installed as per the switch Installation Instruction, you will then make sure your site is complying to the relevant Australian or International Standards for conveyor Emergency Stops.

STL-10-V is over 5 times lighter than STL-10-SS. This reduces the wear of the outer coating by having less weight resting on the guides, plus helps relieve static friction between the two. This makes pull parameters and activations of lanyards more effective and safer. STL-10-V has zero stretch when in a lanyard rope tension situation, however STL-10-SS has slight stretch over time. STL-10-V has low coefficient of thermal expansion and contraction. STL-10-V is a set and forget pull wire with no climate change adjustment needed as found sometimes with STL-10-SS. Vectran being five times stronger than steel and having a coating that is UV stable and very tough to cut, the STL-10-V is fit for the purpose as a lanyard pull wire.

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### TECHNICAL SPECIFICATIONS

Diameter Jacketed	Internal Diameter	Weight Jacketed rope	Outer Coating	Break Strength
5mm	3mm	21.6kg/km	PU Red	9.3 kN min. 478kgf

Vectran™ is a high performance multifilament yarn spun from liquid crystal polymer (LCP). Vectran™ is the only commercially available melt spun LCP fiber in the world. Vectran™ fiber exhibits exceptional strength and rigidity. Pound for pound Vectran™ fiber is five times stronger than steel and ten times stronger than aluminium. These unique properties characterize Vectran™:

- High Strength and modulus
- Excellent creep resistance
- High abrasion resistance
- Excellent flex/fold characteristics
- Minimal moisture absorption
- Excellent chemical resistance
- Low coefficient of thermal expansion (CTE)
- High dielectric strength
- Outstanding cut resistance
- Excellent property retention at high/low temperatures
- Outstanding vibration damping characteristics
- High impact resistance

### COMPARISON OF PROPERTIES OF VARIOUS ENGINEERING MATERIALS

Material	Density (g/cm <sup>3</sup> )	Tensile Strength	Specific Strength	Tensile Modules	Specific Modules
Vectran™	1.41	3.2	229	75	5300
Titanium	4.5	1.3	29	110	2500
Stainless Steel	7.9	2.0	26	210	2700
Aluminium	2.8	0.6	22	70	2600
E-Glass	2.6	3.4	130	72	2800
Graphite (AS4)	1.8	4.3	240	230	13000

### THERMAL PROPERTIES

- Good LOI (equivalent to aramids) and low smoke generation
- Low thermal shrinkage (hot air, boiling water and laundry)
- No dripping in vertical flammability tests
- Good strength retention after hot air and radiant energy exposures
- Low, negative coefficient of thermal expansion
- Excellent property retention in a broad temperature range
- No measurable volatile condensable mass (VCM) and 0.3% maximum weight loss (TML or TWL) in testing for aerospace applications. (See also "Offgassing/outgassing").

### ORDERING DETAILS

Part No	Description
STL-10-V	3mm ID x 5mm OD Vectran™ Red UV Stable Polyurethane Coated Rope

Manufactured in Australia by:

18 Tambrey Way, Malaga  
Western Australia 6090

Telephone: (08) 9247 6700  
Facsimile: (08) 9248 6292

 **Electric Control**  
PRODUCTS  
www.safe-t-products.com.au

Sold by: