Amphenol LTD
DEFENCE & AEROSPACE

intelligent textiles limited

molliflex®

Flat woven e-textile power and data cable

Molliflex® is a revolutionary power and data cable for soldier systems.

It's the first cable that is flat and foldable, and can fix to any MOLLE vest with its clever flexible teeth. No more loose cables to snag and tangle up, and you can even fit pouches over it. With its, up to, 60% weight saving over standard cables, molliflex® is the ultimate durable and lightweight solution for bodyworn applications.

Versatile

Molliflex® is versatile and adaptable. It lets you design and build your own custom "smart vest". Position your connectors and routes wherever you need them for your individual load-out, whatever combination of radios, batteries, computers and hubs you use.

Invisible

Molliflex® is the same thickness as webbing and is lighter and far more flexible than regular cable. Once it's fitted to your MOLLE it virtually disappears, so your kit stays sleek, light and snag-free.

Snag-Free

Molliflex® is the flat, foldable power and data cable for soldier systems. You can attach it to any MOLLE vest with its clever, flexible teeth. It folds completely flat, so nothing sticks out that might snag or tangle, and you don't even lose any space for pouches.

Self-Build

Molliflex® lets you build any shape of soldier system to fit your needs. Connect batteries, radios, GPS, computers… you name it.

Capable

Molliflex® conducts power and data just like a regular cable. In fact, molliflex® outperforms regular cable in most respects and can handle data speeds up to USB2 and power up to 5 amps. Better Performance, in a better package.

Stays Flat

Molliflex® folds completely flat to turn corners, so it always stays tight against your vest and out of the way. You can even fit pouches over it, or neatly tuck away any excess length.

Protected

Despite being so thin, light and flexible, molliflex® is totally watertight and dust-proof (IP68). And it's electrically shielded from jamming and detection.

Ergonomic

Molliflex® is designed to make your life easier and be versatile enough for all your needs. The addition of optional accessories such as easy pull-lanyards, the Ejector™ QD tool or the Hardpoint™ attachment plate make life easy if you are using the system with gloves, routing across a vest buckle or needing a fixed socket for attaching to a helmet or rangefinder.

High Flex Life

Regular cables break because they're not built for bending back and forth. Molliflex® has a revolutionary smart textile inside, instead of wires. This lets it fold completely flat, and bend more than 2 million times without breaking – that's a thousand times more than a regular cable.

Tough

Molliflex® survives where regular cables die. It's built tough with no compromises so it can survive the harshest use, with high-specification connectors and ballistic-grade fabrics.

Product Technical Capabilities

Physical	
Length	150mm (6 inches) to 1500mm (59 inches)
Thickness	2 mm (0.08 inch)
Width	25 mm internal, 36 mm external (1.0 inch, 1.4 inch)
Weight	41 grams (1.44 ounces), 600mm version with Amphenol Warrior Grip connectors
Finishes	DWR nylon; Multicam®, Coyote, Flecktarn, CADPAT, black (Standard finishes available)

Mechanical	
Cyclic bend	100 cycles @ 0mm radius, 140° bend
Tensile stress	150 Newtons UTS

Environmental	
Submersion	IP67 @ 1m for 0.5 hours
Thermal cycle	5 cycles, -55°C to +85°C @ 0mm radius, 180° bend

Electrical	
Rating	5 amps, < 50 volts DC[1], 2 power lines
Data	USB 2.0, 480 Mbps
EMC	EMI Screened Product

Interconnect Options

Molliflex® can be used with a range of soldier systems connectors including Warrior Grip, Stingray, Terrapin and Gladiator. We would welcome the opportunity to discuss your requirements and propose the available options.

Please contact your local Amphenol representative or contact us via our website: **amphenol.co.uk/contact**.

Molliflex® is a registered trademark of Intelligent Textiles Limited. Specification detailed in this product sheet is dependent on connection systems required and may be subject to change.