Prysmian Group

Pressline

# Emergency Stop System

Pressline is a unique system that offers continuous emergency stop protection around complex industrial hazards. The actuating device is a patented pressure sensitive cable that can follow any route up to 10km. Activation is by pressing, bending or pulling the cable at any point along its length. The Pressline control unit monitors the pressure sensitive cable and employs rigorously tested solid state technology. The control unit continuously monitors the cable and confirms system functionality. If an activation state is detected in the cable, the control unit interacts with machinery controls to switch off plant or activate alarms.

Features and Benefits

> Continuous emergency stop switching along routes up to 10km.

> Actuating cable can follow any route, regardless of its complexity.

> Solid state technology eliminates the nuisance tripping often associated with contact failure on traditional systems.

> Low smoke and fume, zero halogen system options.

> Immune from vibration degradation.

> Maintenance free operation.

> Self monitoring, fail safe system design.

> Quick and cost effective installation.

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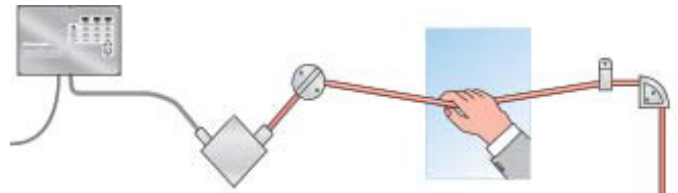
Applications

> The Pressline system is in use in many applications throughout the world.

> It has proved particularly successful for conveyor systems in the following areas: - Airport Baggage Control
- Bottling Plants
- Assembly Lines
- Paper Mills
- Hi-Tec Manufacturing Environments
- Sorting & Distribution Centres
- Quarries & Mines

Why is Pressline better?

> Pressline offers emergency stop activation over a continuous length that can include complex and convoluted routings. Traditional emergency stop buttons can leave personnel with significant distances to travel before they can activate an emergency stop.

> Pressline is a solid state system with no mechanical contacts. Most devices utilise mechanical contacts that can fail, especially in industrial environments, leading to nuisance tripping and the need for regular inspections and maintenance. Unnecessary production stoppages are extremely costly but can be eliminated with Pressline.

> Pressline is an extremely cost effective solution. Installing Pressline around large industrial hazards can significantly reduce installation costs compared to traditional emergency stop systems.

Specification and Approvals

> The system has been designed and tested in accordance with the principals of the Machinery Safety Directive 2006/42/EC.
> Safety and reliability figures in accordance with BS EN ISO 13849-1:2008 - *"Safety of machinery. Safety-related parts of control systems. General principles for design"* Performance Level, PI=C & Probability of dangerous failure per hour, $PFH_d = 2.53x\ 10^{-6}$
> The system is fully compliant with the Electromagnetic Compatibility (EMC) *Directive 2014/30/EU, BS EN 61000-6-2* & *BS EN 61000-6-4*
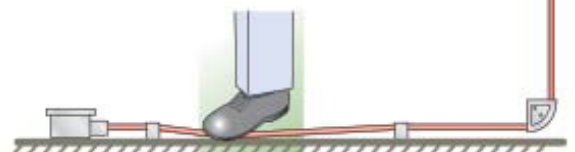
Reputation

With origins stretching back over 100 years, Prysmian has developed an enviable reputation for product quality and innovative design. Prysmian Components manufactures and supplies to accredited Business Management Systems BS EN ISO 9001 , BS EN ISO 14001 and is certified to OHSAS 18001.

System Design

> Pressline emergency stop systems are simple to specify and install.

> The fundamental elements are the control box, the pressure sensitive cable and the termination box. Pressline accessories are then employed to tailor the system to the precise requirements of the installation.

Pressure Sensitive Cable

> The Pressline Pressure Sensitive Cable is the primary element of the system and its vivid red outer sheath highlights its significance and presence in industrial environments. It consists of two conducting layers held apart by a spacer thread.

> When pressure is applied to the cable (whether a result of pulling, bending or compression) the two conducting layers effectively make contact. The control unit interprets the resulting change in resistance as the actuation signal.

> The cable is available with 2 sheath types to enable exact installation requirements to be met:

Sheath Application Requirements

Polyurethane	High abrasion resistance
Low Smoke and Fume, Zero Halogen	Superior reaction to fire

Control Unit

> The Pressline Control Unit employs dual microprocessor circuitry to continuously monitor the state of the pressure sensitive cable.

> Once the cable is actuated the control unit switches integral high specification safety relays and interfaces with machine control via output signals and volt free contacts. LED indicators on the control unit advise the instantaneous system status.

> The control unit is available with different reset configurations so that the safety requirements of the installation environment can be complimented:

Reset	Option Advantages
Push button on control unit	Reset is available to all
Key reset on control unit	Reset restricted to authorised personnel
Remote reset	Reset can only be made at a remote and secure location

> The unit can be operated from 240V AC, 110V AC, or 24V DC with selection made by insertion links.

> The enclosure is high impact polycarbonate with an Ingress Protection rating of IP65 and is therefore suitable for outdoor installation.

Termination Box

> Termination boxes are required at the start and finish of a Pressline cable run. For a looped system, where start and finish points of the run are the same, a single box is required. For other applications, a termination box is required at each end of the cable run.

Pressline Accessories

> Installation is assisted by the use of CORNER CLEATS (to allow the cable to turn through 90° without tripping), END CLEATS (to secure the cable at the end of a linear run) and various CABLE CLEATS AND SUPPORTS (to hold the cable throughout its route).

Technical Support

> Each control unit is supplied with comprehensive instructions. However, Prysmian and our specialist distributors recognise that every application of Pressline is potentially unique and are always available to offer advice on system design, installation and operation.

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System Details

Pressline is available from specialist distributors (call our sales office for details) or for certain projects, directly from our factory. Please use the part numbers below.

Pressline Components		
	Pack Quantity	Prysmian Part Number
1. Pressline Cable		
Polyurethane Sheathed Pressure Sensitive Cable	per metre	F105 720 966
LSOH Sheathed Pressure Sensitive Cable	per metre	F105 722 606
2 Core Screened Interconnection Cable	per metre	F105 721 490
2. Control Unit		
Control Unit - Push Button Reset	1	W8 2351 20 00
Control Unit - Key Switch Reset	1	W8 2350 20 00
Control Unit - Remote Reset	1	W8 2352 20 00
3. Termination Box		
Termination Box - Aluminium Stove Enamelled Grey	1	W8 2353 00 00
Termination Box - Gun Metal	1	W8 2353 00 01
4. Corner Cleat		
Corner Cleat - Nylon	5	W8 2356 00 03
Corner Cleat - Aluminium Stove Enamelled Grey	5	W8 2356 00 01
Corner Cleat - Gun Metal	5	W8 2356 00 02
5. End Cleat		
End Cleat - Nylon	2	W8 2355 00 03
End Cleat - Aluminium Stove Enamelled Grey	2	W8 2355 00 01
End Cleat - Gun Metal	2	W8 2355 00 02
6. Cable Support		
Galvanised Steel Pigtail	10	W8 2999 00 08
Suspension Cable Cleat	100	385AA-05
Floor Mounting Cable Cleat	100	385AA-02
7. Termination Accessories		
Pressline Cable Termination Kit	2	W8 2354 00 00
Sleeving Pliers	1	W8 4998 00 08
Crimping Tool	1	W8 4998 00 07
Glands for Control Unit	2	W8 2999 00 32

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