



## BK400 Pullkey Safety Switches Additional Features

Temperature Compensation

Robust Construction

Slack Wire Tripping

*Your Partner for  
Conveyor Control.*

# BK400 Temperature Compensation System

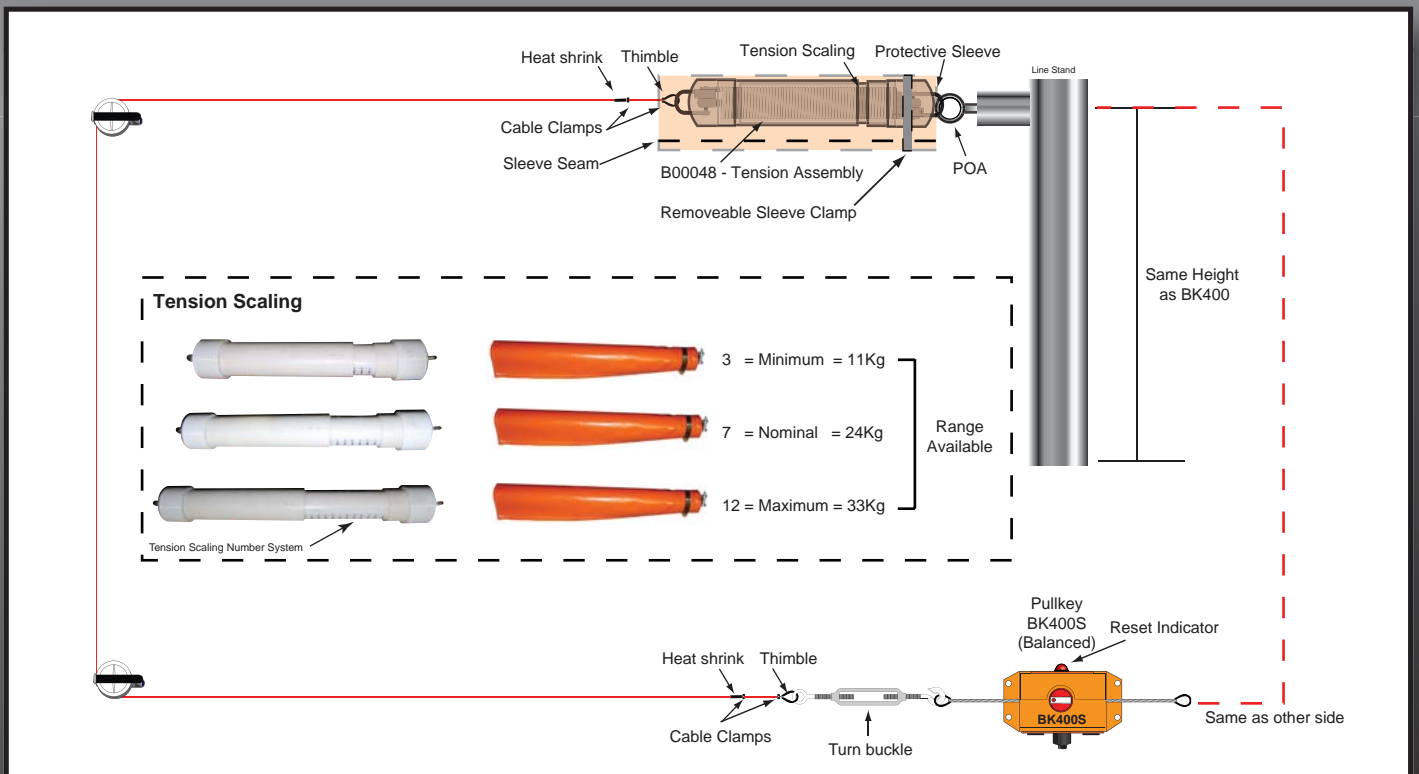
The BK400 Pullkey is a lanyard switch designed to provide pull wire protection on conveyors, Temperature Compensation controls a conveyor systems emergency trip wire, ensuring it is ready to perform at all times by keeping it taut regardless of temperature.

Temperature compensation is necessary where variations in temperature will cause the length of the pull wire to vary. This we achieve by supplying a Tension Assembly to accept the extensions of the wire and the distribution back into the system when movement occurs. The Tension Assembly continually maintains a constant tension on the wires on both sides of the key. In this way the equal tension exerted by the Tension Assembly keeps the main pull shaft in a state of equilibrium.

The pull wire expansion and contraction is of the magnitude of 2mm per degree C change in temperature. The Tension Assembly is designed to accommodate these changes and maintain a constant tension on the pull wires.

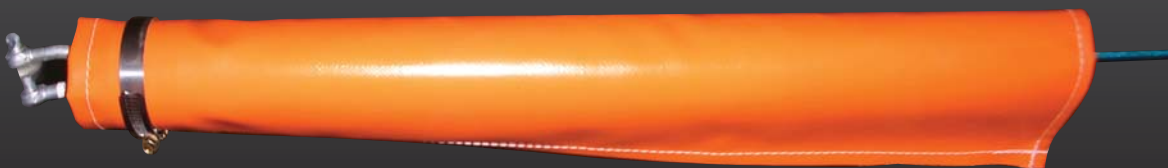
The action of pulling on one or other pull wire will cause the Tension Assembly to lock preventing the extension of the pull wire and transferring the pull effort to the key causing a trip. We accommodate these changes and maintain a constant tension on the pull/trip wire.

## Installation Setup



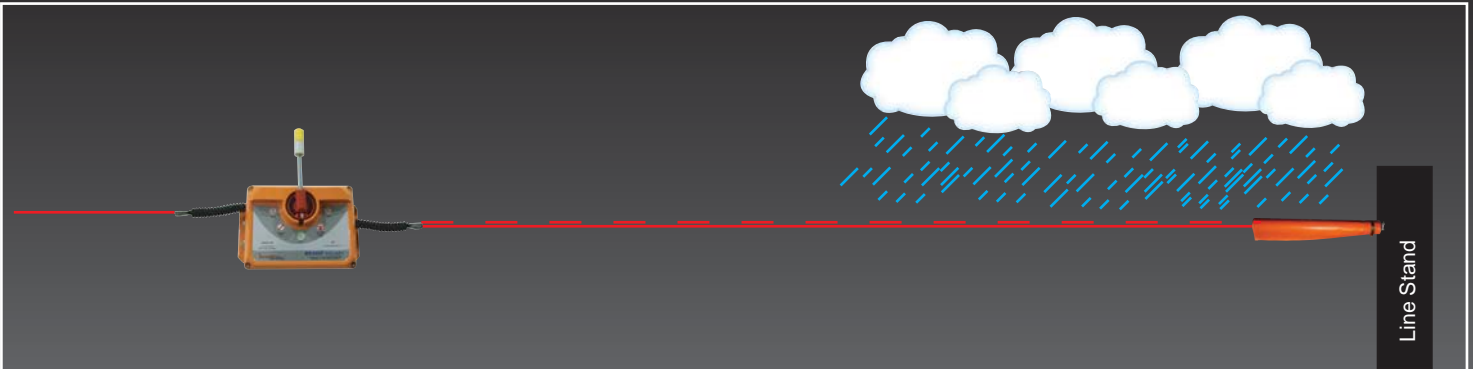
When adjusting or maintaining a Tension Assembly, slow light pressures should only be exerted. Excessive force will be resisted by the Tension Assembly in accordance with its design.

## Tension Assembly with Hyperlon Protective Sleeve.

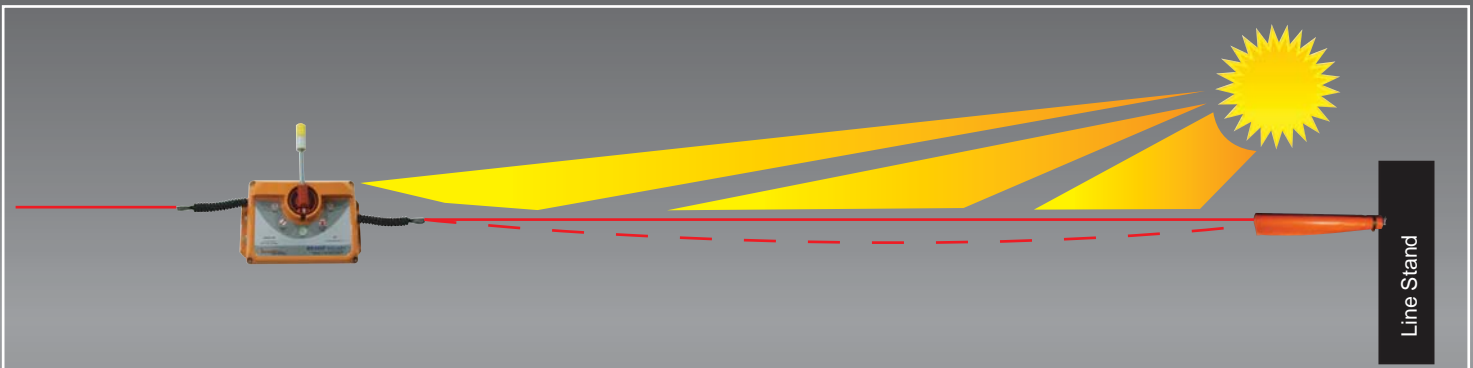


B00048 - TENSION ASSEMBLY

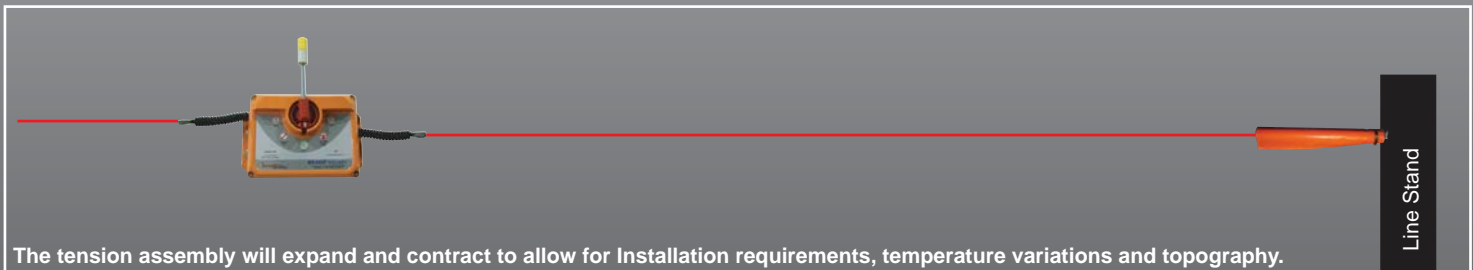
# Tension Assembly Extension and Contraction



Excess cold means contraction, meaning the system may constantly trip even when there is no emergency stop situation - this leads to loss of production, labour resources being wasted ect.



Excess heat means expansion and therefore looseness in the wire - this means you have to pull further to activate the trip switch/emergency stop , thus the sytem is unsafe.



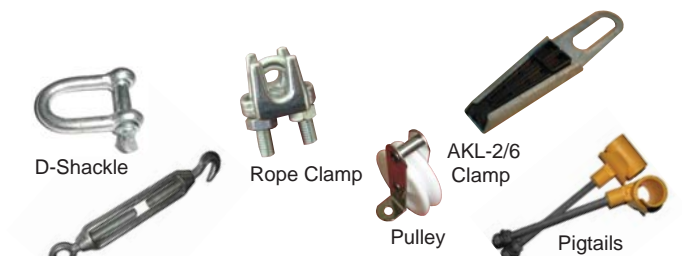
The tension assembly will expand and contract to allow for Installation requirements, temperature variations and topography. The BK400 pullwire system, using any model, has a temperature compensation range for the pullwires of  $-35^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ .



A01309 - BK400F with Optional Signal Flag

## Optional Accessories

Bramco supplies a wide range of suspension fittings for pullwire and cable.



Description	Part Number
D-Shackle:	H70056
Pulley:	H70238
AKL-2:	E70025
AKL-6:	E70026
Turnbuckle:	H70059
Cable Glands:	H70157
Pigtails:	H70235
Rope Clamp:	H70237
Thimble:	H70057

Bramco Electronics has been supplying conveyor signal line control and monitoring systems since 1959. Our CCMS and SLCM Signal Line Control and Monitoring Systems employing the BK400 Pullkey were independently assessed and rated as System Integrity Level 5 and interlocking category (CAT) 4.

# *Your Partner for Conveyor Control.*

"With well over one hundred conveyor systems in operation, some stretching over 20klms and running from one Bramco control unit, Bramco is your partner in conveyor control."

Bramco Electronics  
Head Office  
Bramco Electronics Pty Limited  
ABN 49 327 604 798  
2&3/2 Callistemon Close  
Warabrook NSW 2310  
AUSTRALIA

Telephone 61 2 4014 4444  
Facsimile 61 2 4967 4100  
Email [sales@bramco.com.au](mailto:sales@bramco.com.au)  
[www.bramco.com.au](http://www.bramco.com.au)

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