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PULL WIRE SAFETY SWITCH

E2020R Series • RA (cast aluminium) • RC (cast iron)

Manufactured by One Stop Engineering | Supplied by Leveltec Engineering





The E2020R Pull Wire Safety Switch is an emergency stop device for use along the length of a conveyor or similar installation. It is designed as a reliable, robust and readily accessible safety switch with fail-safe operation, long or short coverage distances and minimal maintenance requirements.

Two standard enclosures are available: RA in cast aluminium and RC in cast iron.

FEATURES

- One centrally mounted switch covers up to 250m of pull wire (125m each side)
- Built-in provision for expansion and contraction of the pull wire
- Electrical switching and mechanical latching occur together when the pull wire is pulled, broken, detached or slackened
- Reset rod can be latched to lock the switch in the tripped position
- Compression-type stainless steel springs inside the enclosure
- Fail-safe operation; single-sided version available
- AC and DC switching combinations
- Mechanism interchangeable with the E200

CONSTRUCTION

Cast iron (E2020RC) or cast aluminium (E2020RA) enclosure, with stainless steel pull rods and reset rod.

OPERATION

Pulling the pretensioned tripwire sideways from its alignment, or along its axis away from the switch, trips the switch. With the far ends firmly anchored, movement comes from the operating end. Breakage, cutting or slackening of either tripwire also trips the switch.

RESET

Reset by pushing up the reset knob beneath the enclosure. A safety clip anchored to the enclosure can be used to hold the switch tripped during maintenance or repair.

MAINTENANCE

Periodically check tripwire tension and adjust as required. Smear-grease sliding parts with molybdenum disulphide or a similar lubricant.

ORDERING INFORMATION

Basic units – add after E2020R	
A2P	Aluminium weatherproof enclosure, 1NO / 1NC contacts
C2P	Cast iron weatherproof enclosure, 1NO / 1NC contacts

Optional extras	
A4P / C4P	2NO / 2NC contacts
A6P / C6P	3NO / 3NC contacts
A8P / C8P	4NO / 4NC contacts
W	Safety glass window in cover
SRH / SLH	Single-sided right or left hand operation
T.B.	12-way terminal block

WEIGHT

Enclosure	Weight
Aluminium	7kg
Cast iron	12kg
Packing carton	add 1kg

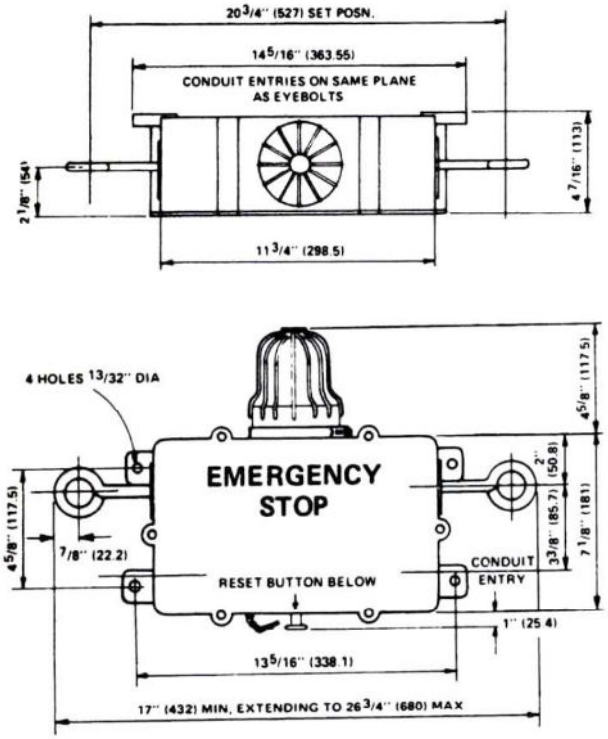
SPARE PARTS

For variations and spare parts, contact Leveltec on +61 2 6558 9264 or sales@leveltec.com.au.

ELECTRICAL

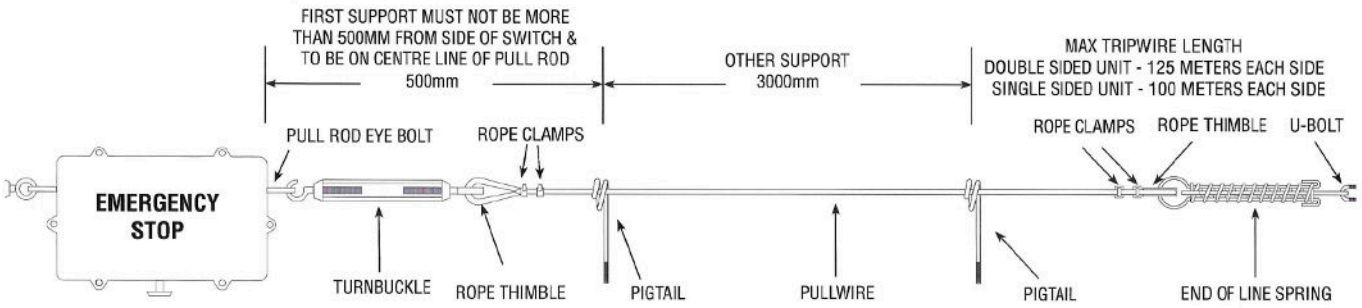
Up to four Telemecanique XE2NP2151 contact blocks can be fitted. Each block has 1 NO + 1 NC contact, with slow-break, break-before-make operation and positive opening. Rated operational current: 3A at 240VAC (AC-15) and 0.27A at 250VDC (DC-13). Enclosed thermal current (Ithe): 10A. A 20mm screwed conduit entry is provided at each end of the enclosure.

DIMENSIONS – STANDARD E2020R



Dimensions in inches (millimetres). Do not scale drawing.

INSTALLATION



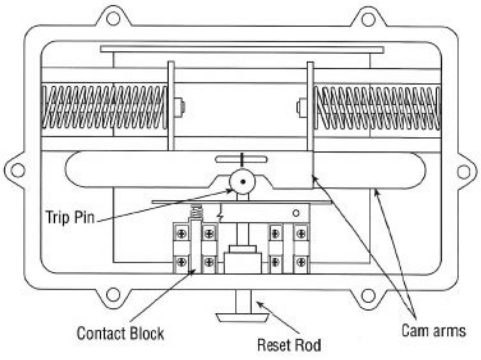
Mount the unit with the reset at the bottom.

1. For double-sided units, install the switch midway between the pull wire end supports.
2. Attach the ends of the pull wires to end of line springs (part no. G1511/2) using standard wire rope thimbles and clamps. Attach the end of line spring solidly to a fixed support.
3. Connect the pull wire to the switch pull rod eyebolt using a standard wire rope thimble, clamp and 8mm turnbuckle.
4. Support the pull wire with solidly fixed U-bolts or similar loops, no more than 3m apart. The first support must be within 500mm of the switch, on the centre line of the pull rod.

Maximum tripwire length: 125m each side (double-sided unit); 100m (single-sided unit).
Recommended pull wire: 6x19, 3.5mm dia PVC-covered galvanised steel wire rope (part no. E2020-A1).

SETTING

1. Tension the pull wire with the turnbuckles until the eyebolt cam arms inside the switch are in line with the trip pin.
2. Tug the pull wire at intervals to remove sag and kinks, then recheck the alignment and readjust. Repeat until the rope is kink-free (this may take 3 or 4 passes).
3. If the tripwire is longer than 75m each side, make final adjustments at mean temperature.



ACCESSORIES

Part no.	Description
G1511/2	End of line spring
A1-B	Blue PVC-coated 6x19 galvanised steel wire rope
A1-R	Red PVC-coated 6x19 galvanised steel wire rope
A1-SS	White PVC-coated 7x7 stainless steel wire rope
A2 / A2-SS	U-bolt – galvanised / stainless steel
A3 / A3-SS	8mm turnbuckle – galvanised/zinc / stainless steel

Part no.	Description
A4 / A4-SS	Rope clamp – galvanised/zinc / stainless steel
A5 / A5-SS	Thimble – galvanised/zinc / stainless steel
A6	1/4" stainless steel pigtail with nuts and washers
A6-L	1/4" stainless steel pigtail, 85mm longer
A6-HD	3/8" stainless steel pigtail with nuts and washers