

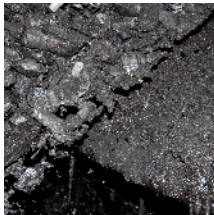


INSTALLATION & OPERATING DATA

TILT SWITCH

INSTALLATION & OPERATING DATA

TUNNELLING
 •
 MINING
 •
 QUARRIES
 •
 MATERIALS
 HANDLING
 •
 CONVEYOR
 SYSTEMS

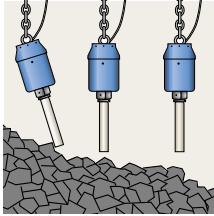


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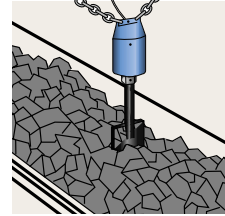
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1 APPLICATION



- To detect the presence or absence of solid and powdered material.
- It is ideal for use in bunkers, silos, transfer points and conveyors, etc.
- The tilt switch is normally used with a straight or paddle type actuator rod.



2 PRINCIPLE OF OPERATION

- The unit houses an electro-pneumatic timer which has an adjustable time range of 0.2 to 30 seconds.
- A steel ball depresses the timer actuator whilst the tilt switch is vertical, but if the switch is moved through an angle exceeding 15° the ball releases the actuator and the time period commences.
- When the time period expires a voltage free changeover contact operates.
- The contacts and timer reset when the tilt switch returns to within 6° of the vertical.

3 INSTALLATION

- The tilt switch should be suspended over the area to be monitored using chains and eyebolts.
- Care should be taken to ensure that the switch cannot be buried by the material as it builds up. Where there is a chance of the tilt switch swinging away from the material then two separate chains and eyebolts should be used to suspend the unit.
- Finer materials and powder may require the use of a paddle actuator modified to 'trap' the material as it builds up in order to ensure that the switch operates as required.

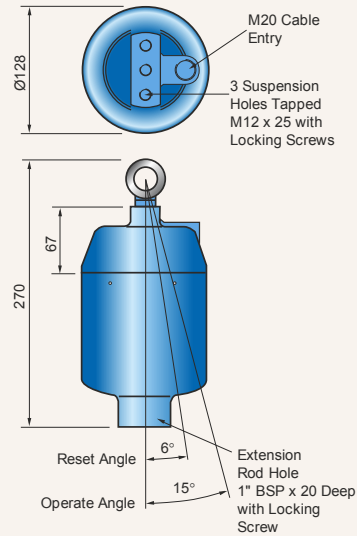
4 TECHNICAL DETAILS

Contact Switching Point:	15° from vertical – any direction.
Contact Reset Point:	6° from vertical.
Ambient Temp. Limits:	-20...100°C.
Housing Material:	Cast S.G. Iron (suitable for underground use).
Protection Classification:	Dust and waterproof to IP65.
Electrical Connection:	M4 barrier terminals.
Nett Weight:	10Kg.

INSTALLATION & OPERATING DATA



5 DIMENSIONS



ALL DIMENSIONS IN MM

6 ELECTRICAL DETAILS

Contact Operation:



The contacts are shown with the switch in the vertical position.

Changeover occurs after an adjustable time delay when the switch is tilted.

Time delay 0.2 to 30 seconds.



Contact Rating:

230V ac, 5 Amps.

7 MAINTENANCE

No maintenance is necessary.

8 ACCESSORIES

TX1190 ROD EXTENSION

TX1191 PADDLE EXTENSION (State length required in metres)

TX1192 SUSPENSION CHAIN

TX1193 'D' SHACKLE (For Suspension Chain)

INSTALLATION & OPERATING DATA



PROTECTING THE ENVIRONMENT



Many of our products are often used to monitor the quality of environmental conditions consequently Trolex is also particularly aware of the need to protect human health and the environment in which we live.

The Company has instituted a radical environment protection policy to ensure that all aspects of our manufacturing programme have the minimum possible detrimental impact on the environment. This covers all stages beginning with sustainable product design supported by careful selection of the materials used in their production, through to managed recovery and disposal at the end of the useful life of a product.

This policy also incorporates the principles of the Waste Electrical and Electronics Equipment (WEEE) directive, and the associated Restriction of Hazardous Substances (RoHS) directive, to be implemented in EU countries.

Progress is already well advanced on the introduction of a completely new range of products that maximise the central principle of sustainable design with the intention of reducing the end-of-life cost to the end user.

All Trolex products are manufactured to exacting standards in accordance with our stringent quality control ethos. Having chosen to use one of our products will, in itself, guarantee extended durability and a long operating life, endorsed by our commitment to recycling and recovery.

- All packaging materials are carefully selected to be bio-degradable or re-cyclable where possible.
- All plastic materials are identified for recycling purposes and re-cycled materials are used where it is possible to do so.

- Printing paper and material are sourced from suppliers that have a declared environmental management system.
- Product design centred around high quality and long term durability. Modular architecture both in construction and software design suitable for future upgrades and adaptability to alternative duty.
- Ease of product disassembly, minimisation of fixing devices, and clear separation of functional parts to benefit re-use and re-cycling.
- Control and monitoring of suppliers of components and sub-assemblies. Deal only with suppliers that have a defined commitment to environmental monitoring principles.
- Control the use of restricted substances within the design process. Deal only with suppliers that have a defined commitment to the control of restricted substances.
- Provide an efficient high speed service within Trolex for repair, refurbishing and conversion of products for alternative duty.
- Provision of an end-of-life product Take-back service for recovery, re-use, and recycling of electrical and electronic components. Retain the packaging of a new product and re-use it to return the device to us at the end of its working life. Trolex will guarantee to recover all materials and components, where practicable and arrange for them to be re-cycled in an appropriate and in a safe manner.

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