



Ramsey pro-line series 60

Conveyor Protection Switches

Ramsey Pro-Line conveyor protection switches monitor your conveyors, equipment and processes.

Use our conveyor's protection switches to prevent accidents, protect equipment and reduce unscheduled shutdowns helping to keep your profits and production at their highest levels.

Ramsey Pro-Line switches by Thermo Scientific are used for position information, control signals and to identify potentially hazardous situations to your process equipment. When hazardous situations occur they activate alarms to stop your equipment.

This keeps your personnel safe and limits damages to your equipment.

The modular design of the base unit provides added convenience for installation and maintenance.

Use Ramsey Pro-Line conveyor's protection switches to protect your business in even the most challenging applications.

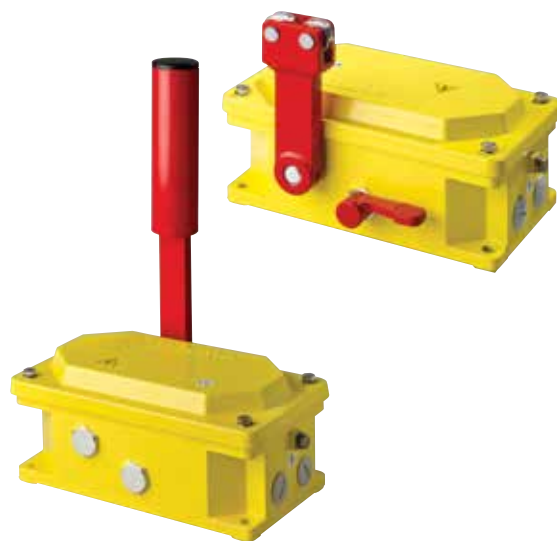
The Pro-Line conveyor's protection switches utilize a rugged cast aluminium heavy duty design, with protection degree IP65 allowing them to last, providing many years of dependable service.

The unit may be operated from any direction as the microswitches are operated both for clockwise or counterclockwise rotation of the external lever.

The cover is locked by four shake-proof stainless steel screws.

The internal terminal board allow easy connection and faster maintenance procedures.

The series is also available with ATEX22 and ATEX21 approvals.



Pro-Line Belt Misalignment (Run-Off) Switch model 60-30

The Pro-Line Belt Misalignment Switch is used to monitor the position and track of conveyor belts. It is mounted on the conveyor's structure and adjusted so that the roller arm is at proper distance and angle from the outside edge of the belt. When a belt drifts out of alignment it contacts the roller of the actuator arm which rotates the actuation shaft, causing the Belt Misalignment Switch to send an alarm signal.

The actuation shaft has two cams inside the housing. Each cam actuates an independent SPDT micro-switch for alarm signals.

The first micro-switch is activated with a 15° rotation of the actuation shaft, for a warning signal allowing operators to address the situation before it becomes a problem.

The second micro-switch is activated with a 30° rotation of

the actuation shaft for a shut-down signal in order to prevent or minimize damages to the equipment.

The roller is sized for a maximum speed of 4000 R.P.M., equivalent to an approximately 8 m/sec belt speed.

The unit is equipped with a by-pass lever which by-passes the shut-down contact to allow the restarting of the belt.

This model has 2 NC contacts and 2 NO contacts, wired to the terminal board.

The position of the lever on the shaft can be changed as needed so that you can mount the switch on a horizontal, vertical or inclined plane.

Pro-Line Emergency Cable Pull Switch model 60-31

The Pro-Line Safety Pull-Cord Switch is used as an emergency shut-down device for conveyors or other equipment.

Emergency pull cords are attached to the actuating arm of the switch. When a force is applied to the pull-cord the actuating arm and shaft rotates and, at a 18° rotation, the switch enters a locked tripped position.

The actuating shaft has two cams inside the housing. Each cam actuates an independent SPDT micro-switch for alarm and shut-down signals. Both cams works simultaneously, for safety reason.

Standard Safety Pull-Cord Switches include a manual reset lever that keeps the switch locked in an alarm condition until it is manually reset by the Operator. This feature makes the remote restarting impossible, thus eliminating the possibility to restart the belt conveyor when people is working locally.

This model has 2 NC contacts and 2 NO contacts, wired to the terminal board.

Use of one Safety Pull-Cord Switch every 50 m is recommended.

Mounting accessories are available for a correct installation:

- Safety springs
- Redances (thimbles)
- Helical nuts for fixing or supporting
- Steel cord clamps
- Steel cord

Pro-Line Tripper Position Switch model 60-32

The Pro-Line Tripper Positioning Switch is a heavy duty limit switch often used to indicate the position of a tripper on a conveyor with multiple discharge points. However it can be used anywhere you need an extremely heavy duty limit switch with physical activation.

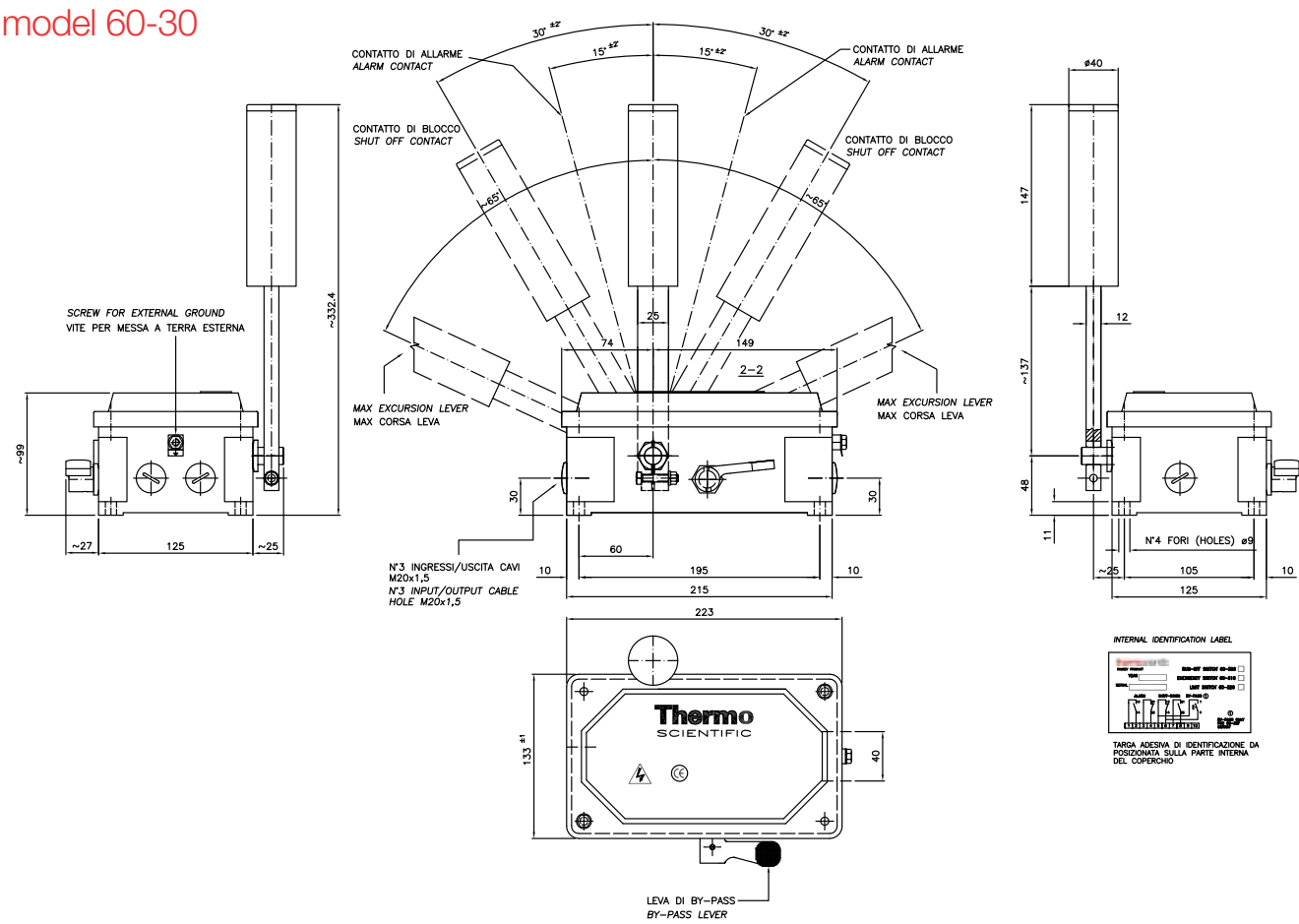
The actuating arm of the Tripper Positioning Switch uses a contact wheel: when the wheel contacts a mechanical contrast the actuating arm and shaft rotates and, at a 18° rotation, the micro-switches are operated. The actuating shaft has two cams inside the housing: each cam actuates an independent SPDT micro-switch for alarm and stop signals.

Both cams works simultaneously, for safety reason.

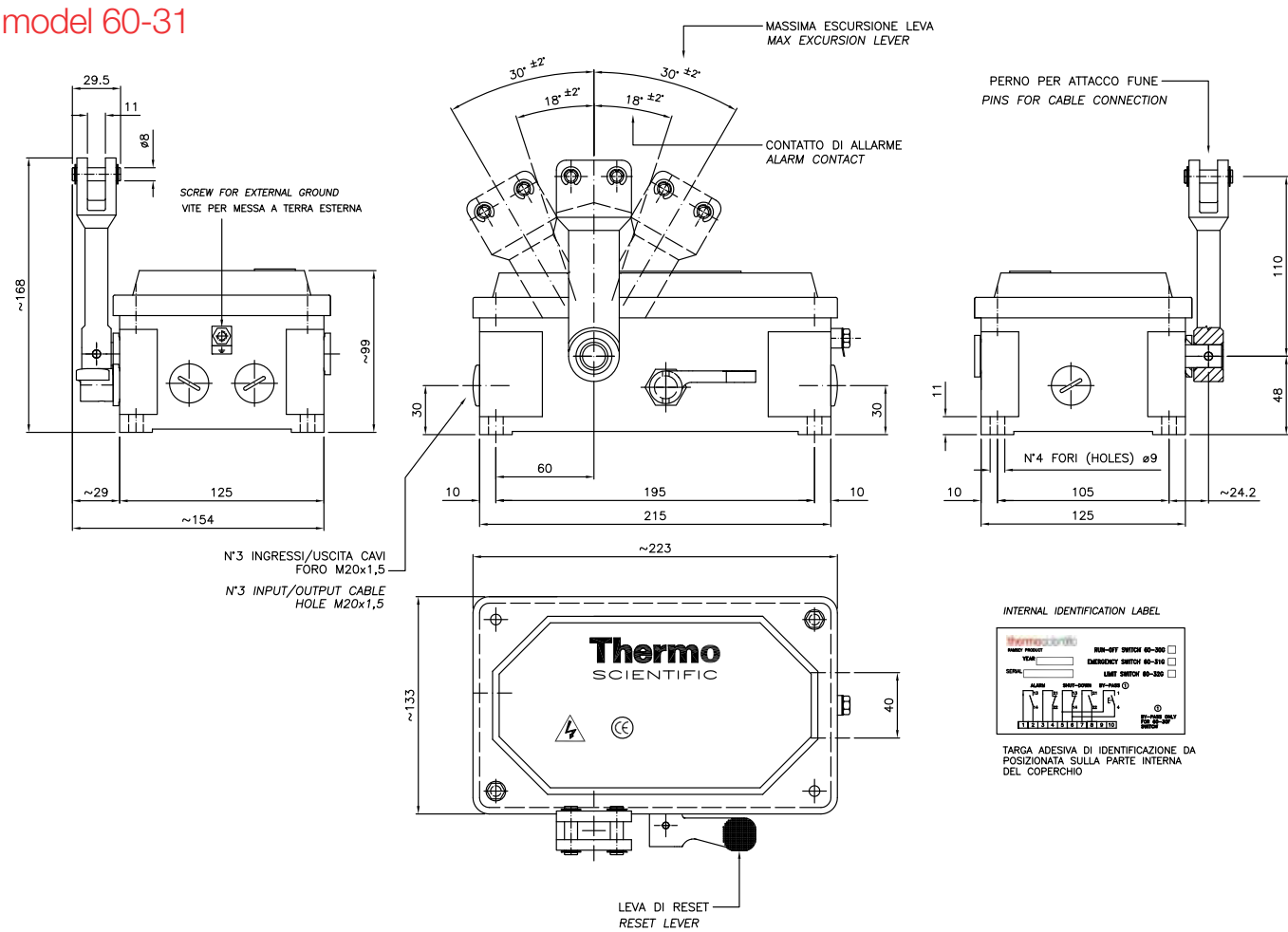
This model has 2 NC contacts and 2 NO contacts, wired to the terminal board.

The position of the lever on the shaft can be changed as needed so that you can mount the switch on a horizontal, vertical or inclined plane.

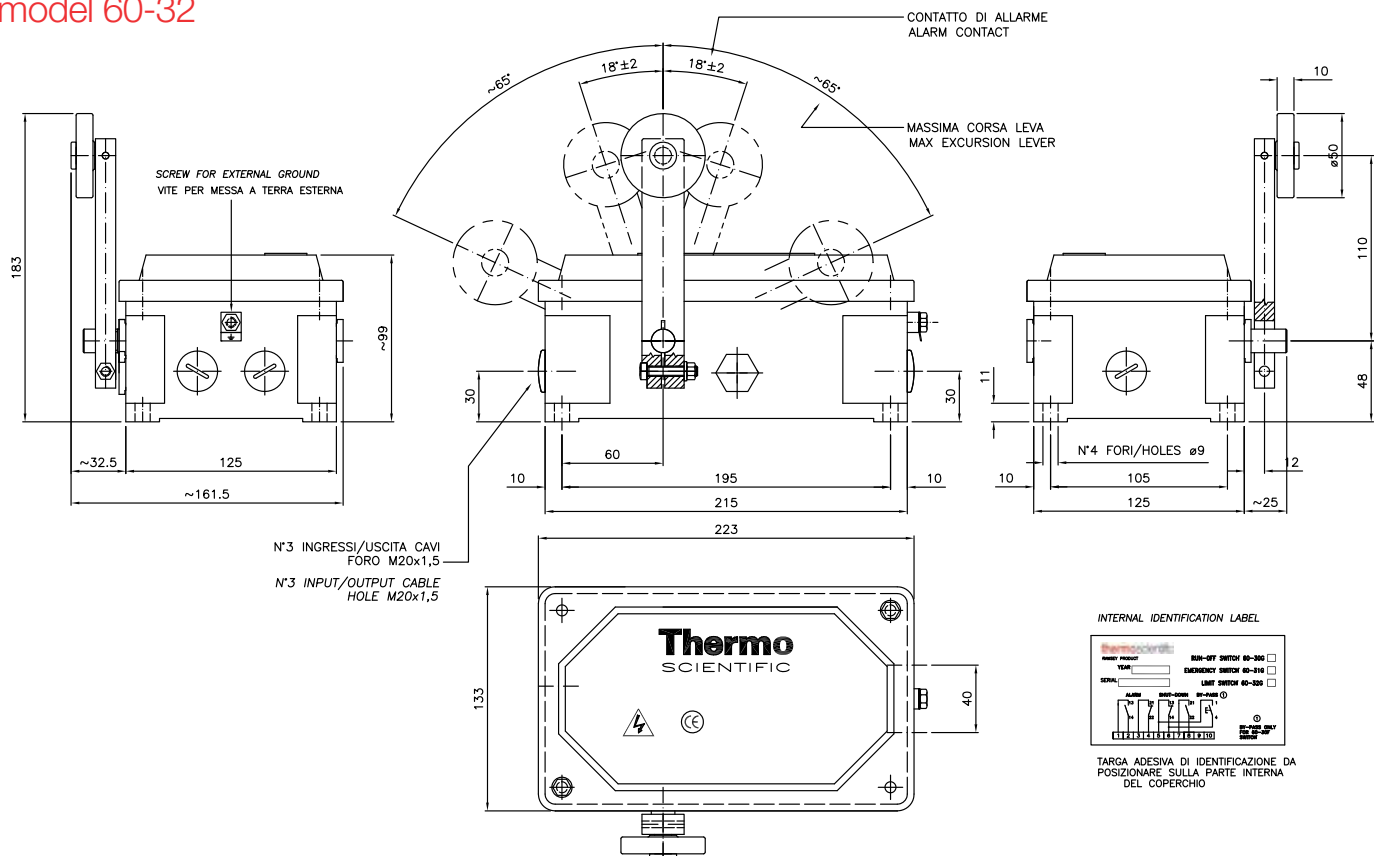
model 60-30



model 60-31



model 60-32



Conveyor protection Switches Ramsey Pro-Line Series 60

Contact Rating:	Contact configuration: 2NO + 2NC Contact rating AC15: 24V=10A, 250V=6A Contact rating DC13: 24V=8A, 48V=2A Contact elements with Positive Break Function according to IEC/EN 60947.5.1
Operating Temperature Range:	-45°C +85°C
Enclosure Rating:	IP65 (NEMA4)
Cable Inlet:	N.3 cable inlets M20X1,5 (PG21, M25 or different available on request)
Construction:	Rugged cast aluminium, heavy duty design
Approvals:	ATEX for Zone 21 and 22

Options:

- Special version for sea/aggressive ambients with screws, O-rings and other parts Stainless Steel AISI 316L construction;
- Belt Misalignment Switches with "short" lever or different actuating angle;
- Mounting kit (springs, thimbles, nuts, cord...) for Safety Pull-Cord Switches;
- Possibility for pre-installation of Dupline® tracking modules.

Beside the above described equipments, Thermo Ramsey PRO-LINE also includes:

- Safety Pull-Cord Switches model 60-34, for light applications or short conveyors;
- Belt Misalignment (Run-Off) Switches model 60-33, for light applications;
- Under speed switches 60-23;
- Mercury Free Tilt Sensors (for level or plugged chute detector), now certified for ATEX20, 21 and 22;
- Metal detectors Ramsey Oretronic IV.

For additional information, visit our website

thermofisher.com/bulkweighing

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