

HOIST LIMIT SWITCH

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Gear limit switch - *Stromag*

Gear limit switch is a safety device. If any work is carried out on the equipment, always ensure that switches are working correctly. Gear limit switch is mounted on drum stud end of hoist and coupled inline with the rope drum.

Specification of Micro-switch

$I_{th} = 3A$ $U_i = \text{max. } 250V \text{ AC}$ Enclosure rating IP-65

Contact connections:

The wire connections to the micro-switches are made through flat terminals, 6.3x0.8mm. Contact 1 on micro switch is always common. Contact 4 is normally open and contact 2 is normally closed. Micro-switch is a single pole, double throw (SPDT) contacts.

Operation of gear limit switch

This gear limit switch is rotary cam type and is equipped with 4 micro-switches. Gear limit switch limits the lifting and lowering within the range of the highest and lowest rated hook position.

| Position from shaft | Switch Identification | Function |
|---------------------|-----------------------|----------|
| 1 | S1 | Lift |
| 2 | S2 | Lower |
| 3 | S3 | Lift |
| 4 | S4 | Lower |

The switches on gear limit are pre-set at the factory. Switches S1 and S2 are set for extreme upper and lower limits. Limit switch, S1, stops the lifting when the hoist rope has attained the maximum number of windings on the drum and when the hook is at its upper limit of travel as determined by rated headroom. Limit switch S2, stops the lowering when the hook is at its lower limit of travel as determined by rated lift where no less than two wraps of rope shall remain on each anchorage of the hoist rope drum. Switches S3 and S4 are not normally used as standard.

