

# COUNTER WEIGHT LIMIT SWITCH - CWLS (MANUAL)



## INTRODUCTION

Weight Operated type Limit Switch CWLS operates the control change-over contacts of motor of an moving equipments when a cam moving with loads actuates the dead weight rests on a surface of limit switch. This to turns the cams on a square shaft and operate the NO/NC change over contacts elements.

## OPERATION:

A two (or more) contact elements are operated by respective rotating cams, which are suitably fixed on a square cam shaft turned by a weight. The contacts operate at  $\pm 15^\circ$  from central neutral position.

## TECHNICAL DATA :

Body Material	Aluminium Die Cast (Powder Coated)
Model No	CWLS
Protection Degree	IP-55 Confirming to (IS/IEC 60529) 2001
Mounting Position	Floor
Cable Entries	2, 3/4" Conduit
No. of Contacts	MAX 2
Contact Material	Silver Cadmium
Wire Connection	Screw Terminal
Rated Voltage	500 V.A.C. Max
Thermal Test Current	10 A/ 40 A

**\*Also available in Thermoplastic**

## LEVER ACTUATED BY A DEAD WEIGHT :

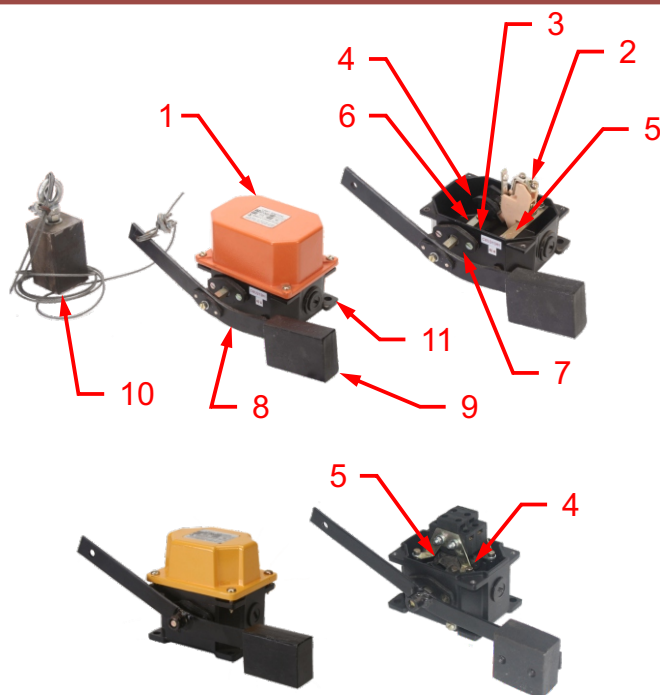
Counter Weight Limit Switches(CWLS) are used to prevent over Hoist motion with weight. Counter Weight is provided. The same is lifted with wire rope to prevent Over-Hoist position.

## DESIGN :

The aluminium die-cast body, lever and cover of the limit switch are finished by powder coating treatment. The cam shaft is mounted in the housing on moulded nylon bushes (Bearing) are fixed through the front and rear walls.

## SETTING OF CWLS :

- Install Counter Weight type Limit Switch on the Rope drum and mount a striker plate over the Hook. Attach dead man weight more than a Counter Weight by a rope on the other side of the Lever (For 10A Counter Weight = 500gm & Deadman's Weight = 600gm and for 40A Counter Weight = 700gm & Deadman's Weight = 800gm). Length of the Rope with Deadman's Weight set to the extreme safe distance for Hoist Operation. During the Hoist Operation, CWLS set in NC Position.
- When the Hook reaches its extreme set safe distance during hoisting operation, the Striker plate mounted on the Hook will strike the Dadman's Weight and the Lever with Counter weight will actuated from NC to NO by Gravity Force on the Counter Weight and the Hoisting Operation will be stoped.



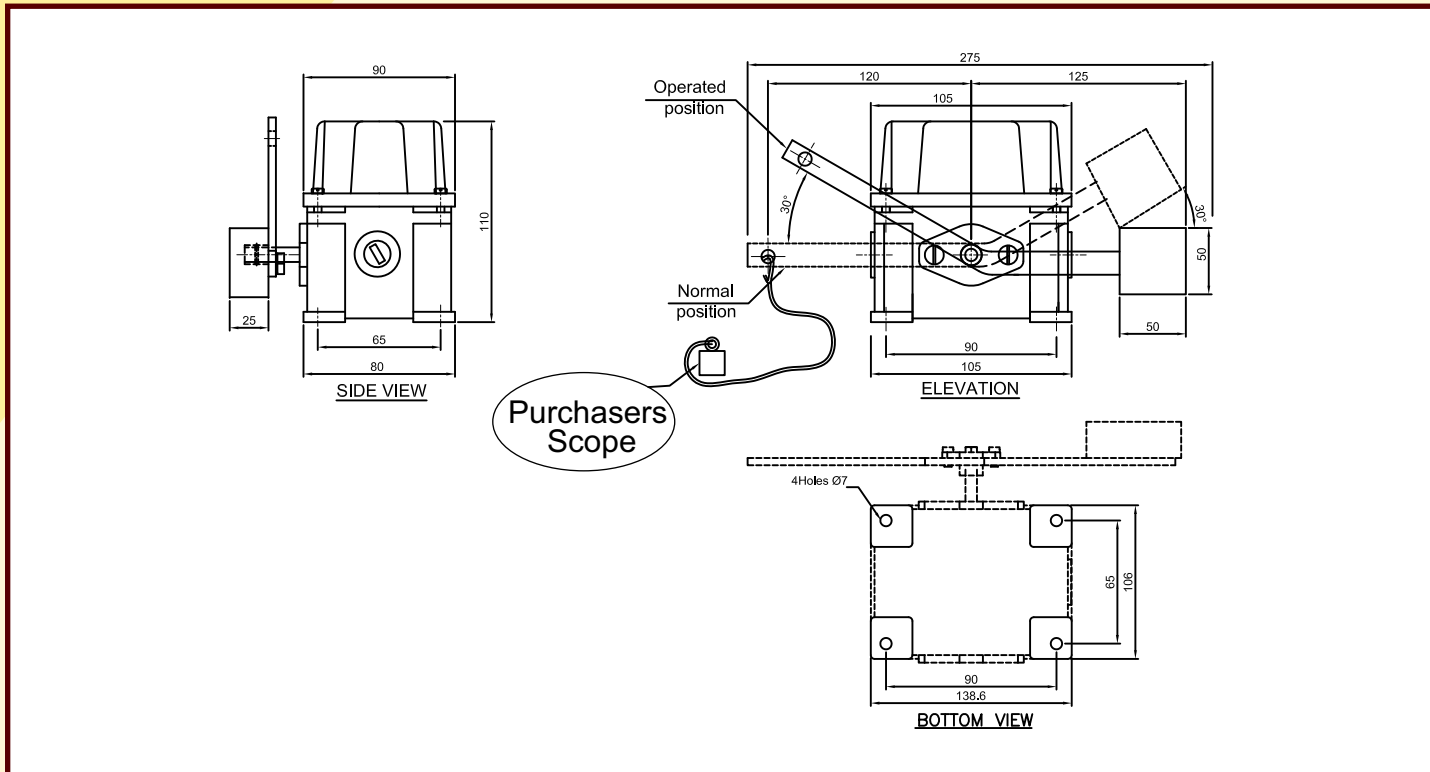
## BASIC CONSTRUCTION

- 01) Aluminium Diecast Top cover
- 02) Contacts (40A/10A)
- 03) Plastic Moulded Router
- 04) Cams
- 05) MS Contact Mounting Channel
- 06) Square Shafting
- 07) End Bearing Bush with Hole
- 08) MS Counter Weight Lever
- 09) MS Counter Weight
- 10) MS Dead Man Weight
- 11) Aluminium Diecast Bottom

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## 10 AMPS DRAWING :



## 40 AMPS DRAWING :

