SCHMERSAL Heavy Duty Limit Switches

Cast Iron Limit Switches 250 Series

Overview

The Schmersal heavy duty cast iron limit switches offer a variety of actuator options, including side rotary levers with metal or plastic rollers, metal belt alignment rollers, or high-temperature models with metal rollers. They are IP65, IP66, and IP67 rated and have up to 2 conduit entries.

Belt alignment switches are actuated when the conveyor belt becomes misaligned. Depending on the plant arrangements, this signal can be used to switch the equipment off or to provide automatic correction of the belt alignment. The actuator arm contains a heavy duty roller and can be actuated to either side. Material handling applications often need special purpose switches for belt alignment. Many feature the heavy duty limit switch housings with uniquely designed actuators for these purposes.

Features

- Cast iron enclosure
- (2) M25 x 1.5 cable entry connection
- Available in snap action and slow action contacts
- IP65 IP66 IP67 protection rating
- High temperature models available -40 to +200 °C [-40 to +392 °F]

MD250-11Z

TD250-02/02Z-RMS

M.250-22Z-1224

TD250-10/10Z-T

Cast Iron Limit Switches 250 Series									
Part Number	*Price*	*Actuator Type*	*Snap Action Contacts*	*Slow Action Contacts*	*Travel Diagram*	*Total Travel*	*Actuating Force (min)*	*Weight (lbs)*	*Drawing Link*
MD250-11Z	$549.00	Side rotary lever with plastic roller	(1) N.O./(1) N.C.	—	1	90°	40N	8.5	PDF
MD250-22Z	$649.00		(2) N.O./(2) N.C.	—	2			8.75	PDF
TD250-02/02Z	$619.00		—	(2) N.C. left and (2) N.C. right	3			9.66	PDF
TD250-11/11Z	$619.00		—	(1) N.O./(1) N.C. left and (1) N.O./(1) N.C. right	4			9.17	PDF
TD250-02Z	$524.00		—	(2) N.C.	5			9.66	PDF
TD250-02/02Z-RMS	$619.00	Side rotary lever with metal roller	—	(2) N.C. left and (2) N.C. right	3			10.19	PDF
Belt Alignment Models									
M.250-11Z-1224	$798.00	Side rotary lever with metal belt roller	(1) N.O./(1) N.C.	—	1	90°	40N	9.74	PDF
M.250-22Z-1224	$899.00		(2) N.O./(2) N.C.	—	2			9.71	PDF
T.250-02Z-H-966	$756.00		—	(2) N.C.	5			8.37	PDF
High Temperature Models									
TD250-10/10Z-T	$621.00	Side rotary lever with metal roller	—	(1) N.O. left and (1) N.O. right	6	90°	40N	9.62	PDF
MD250-11Z-T	$620.00		(1) N.O./(1) N.C..	—	1			8.64	PDF

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Cast Iron Limit Switches 250 Series Specifications			
Series		***Snap Action***	***Slow Action***
Impact Energy (maximum)		7J	
Actuating Speed (maximum)		3 m/s	
Enclosure Material		Cast iron (galvanized and painted)	
Contact Material		Gold-plated silver	
Thermal Current		16A	
Short Circuit Current		1,000A	
Bounce Duration (maximum)		5 ms	
Switching Frequency (maximum)		3,000/h	
Switchover Time (maximum)		35 ms	
Rated Impulse Withstand Voltage		4 kV	6 kV
Electrical Data - Contacts	***Voltage AC-15***	400 VAC (M.250-11Z-1224 and MD250-11Z 230 VAC)	
	Current AC-15	4A (M.250-11Z-1224 and MD250-11Z 2.5A)	
Contact Type		Snap action: change-over contact, up to 250V, with 2 galvanic separated contact bridges	Slow action: change-over contact, up to 250V, with 2 galvanic separated contact bridges, positive break N.C. contacts A
Conduit Entrance		(2) M25 x 1.5 cable entry	
Connection		Screw terminals M 3.5 2.5 mm² (including conductor ferrules)	
Torque Requirements		1 N•m	
Mechanical Life		5 million operations	10 million operations
Degree of Protection		IP65 IP66 IP67	
Temperature Range		-30 to +90 °C [-22 to +194 °F] TD250-10/10Z-T, and MD250-11Z-T -40 to +200 °C [-40 to +392 °F]	
Agency Approvals*		cULus E57648, CE	

***To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.**

Travel Diagrams

Diagram 1
Snap Action
1 N.O. / 1 N.C.

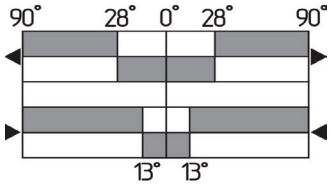

Diagram 2
Snap Action
2 N.O. / 2 N.C.

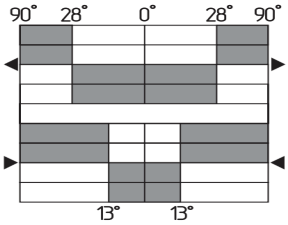

Diagram 3
Slow Action
2 N.C. Left, 2 N.C. Right

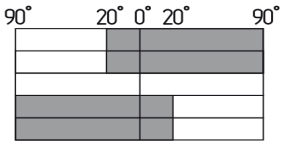

Diagram 4
Slow Action
1 N.O. / 1 N.C. Left
1 N.O. / 1 N.C. Right

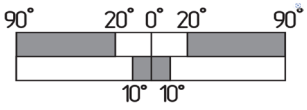

Diagram 5
Slow Action
2 N.C.

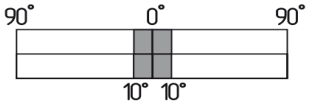
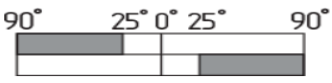
Diagram 6
Slow Action
1 N.O. Left / 1 N.O. Right