IDEM Type HLM Explosion-Proof Safety Limit Switches

IDEM's range of explosion-proof limit switches has been developed to satisfy the latest IECEx and ATEX standards and provide explosion-proof switching for use in hazardous locations created within the oil, chemical, pharmaceutical, food processing, packaging and other hazardous industries.

These switches provide positively operated switching contacts. They combine explosion-proof protection and high functional safety requirements.

These switches are manufactured with ATEX Exd IIC T6 certified explosion-proof contact blocks. All electrical switching elements are fully encapsulated.

IDEM limit switches are designed to be mounted for position sensing applications, such as guard doors, conveyors, machine beds, elevators, etc.

The stainless steel switches have an IP69K rating, which makes them suitable for high-temperature washdown with detergent.

Features

- 3m [9.84 ft] prewired pigtail cable
- Heavy-duty die-cast aluminum or stainless steel 316 bodies
- Industry standard mounting to EN50041
- Slow-action break-before-make contacts

Side rotary lever
HLM-EX-174015
HLM-SS-EX-175015

Plunger with roller
HLM-EX-174065
HLM-SS-EX-175065

Plunger
HLM-EX-174115
HLM-SS-EX-175115

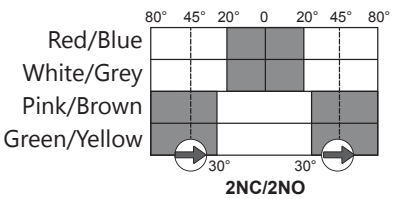
Adjustable side rotary
HLM-EX-174315
HLM-SS-EX-175315

IDEM Type HLM (Die-Cast Metal Body) Safety Limit Switches

Part Number	Price	Body Material	Type	Contacts	Connection	Force Required	Bar Chart	Drawings
HLM-EX-174015	$568.00	Die-cast zinc	Side rotary lever	2 NC safety contacts 2 NO monitoring contacts	3m [9.84 ft] prewired pigtail cable	0.4 N•m [0.30 ft•lb]	A	PDF
HLM-EX-174065	$561.00	Die-cast zinc	Plunger with roller	2 NC safety contacts 2 NO monitoring contacts	3m [9.84 ft] prewired pigtail cable	2N [0.45 lbf]	B	PDF
HLM-EX-174115	$561.00	Die-cast zinc	Plunger	2 NC safety contacts 2 NO monitoring contacts	3m [9.84 ft] prewired pigtail cable	2N [0.45 lbf]	B	PDF
HLM-EX-174315	$572.00	Die-cast zinc	Adjustable side rotary	2 NC safety contacts 2 NO monitoring contacts	3m [9.84 ft] prewired pigtail cable	0.4 N•m [0.30 ft•lb]	A	PDF
HLM-SS-EX-175015	$693.00	Stainless steel	Side rotary lever	2 NC safety contacts 2 NO monitoring contacts	3m [9.84 ft] prewired pigtail cable	0.4 N•m [0.30 ft•lb]	A	PDF
HLM-SS-EX-175065	$686.00	Stainless steel	Plunger with roller	2 NC safety contacts 2 NO monitoring contacts	3m [9.84 ft] prewired pigtail cable	2N [0.45 lbf]	B	PDF
HLM-SS-EX-175115	$686.00	Stainless steel	Plunger	2 NC safety contacts 2 NO monitoring contacts	3m [9.84 ft] prewired pigtail cable	2N [0.45 lbf]	B	PDF
HLM-SS-EX-175315	$697.00	Stainless steel	Adjustable side rotary	2 NC safety contacts 2 NO monitoring contacts	3m [9.84 ft] prewired pigtail cable	0.4 N•m [0.30 ft•lb]	A	PDF

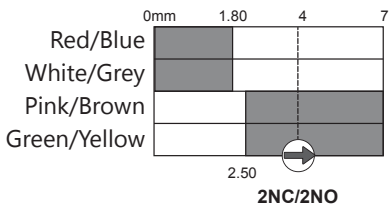
Bar Charts

A



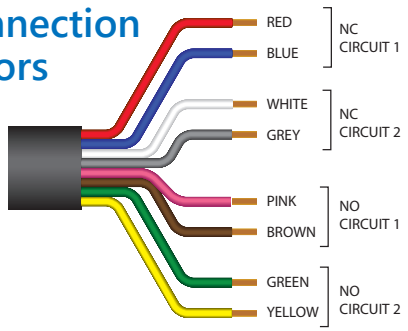
2NC/2NO

B



2NC/2NO

Connection Colors



IDEM Explosion-Proof Safety Switches Specifications

Specifications					
	HLM-EX / HLM-SS-EX	***KM-EX / KM-SS-EX***	***KP-EX / K-SS-EX***	***GLS-EX / GLS-SS-EX***	***GLHx-EX***
Safety Classification and Reliability Data					
Switching Reliability ($B10_d$)	2.5 x 10^6 operations at 100mA load			1.5 x 10^6 operations at 100mA load	
ISO 13849-1	Up to PLe depending upon system architecture				
EN 62061	Up to SIL3 depending upon system architecture				
Safety Data - Annual Usage	8 cycles per hour / 24 hours per day / 365 days				
$MTTF_d$	356 years			214 years	
Agency Approvals	ATEX, IECEx, CE The contact block is cURus Hazardous Location rated (E358295)				
Electrical and General Specifications					
Utilization Category	B300 (pilot duty)				
Minimum Switch Current	5mA, 5VDC				
Thermal Current	2.5 A max				
Maximum Switching Current	250VAC/DC, 2.5 A maximum				
Maximum Approach/Withdrawal Speed	600mm/s [23.6 in/s]			NA	
Enclosure Protection	IP67 (IP69K on all models with both stainless steel head and body)				
Operating Temperature	-20°C to 60°C [-4°F to 140°F]				
Vibration	IEC 68-2-6, 10Hz to 55Hz 0.35mm [0.01 in]	IEC 68-2-6, 10Hz to 55Hz + 1Hz			
Lid Screws/Torque	Plated brass 1 N•m [0.74 lb•ft]	Stainless steel T20 Torx 1 N•m [0.74 lb•ft]	Stainless steel 1 N•m [0.74 lb•ft]		Stainless steel T20 Torx 1.5 N•m [1.11 lb•ft]
Recommended Mounting Screws/ Torque	M4 2 N•m [1,48 lb•ft]	M5 4N•m [2.95 lb•ft]			
Head Screws/Torque	Stainless steel, except snap (plated brass) 1 N•m [0.74 lb•ft]	Stainless steel T20 Torx 1 N•m [0.74 lb•ft]	Stainless steel; 1 N•m [0.74 lb•ft]		

Safety Products

Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.

AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.