Telescopic Trip Limit Switches

HLM-TSL HLM-SS-TSL Operating Instructions

APPLICATIONS:

IDEM Telescopic Trip Limit Switches are designed to be mounted for position sensing of moving applications, e.g. guard doors, conveyors, machine beds and elevators.
They are supplied with a telescopic arm that extends up to 620mm with either slow or snap action contacts.

FEATURES:

Heavy Duty Die Cast or Stainless Steel 316 bodies.
Explosion Proof versions available (see Part Numbers Ex).
Industry standard mounting to EN50041.
Choice of actuator heads Linear and Rotary.
High Mechanical Life 2,500,000 cycles.
HLM Die Cast Housing IP67 rated.
HLM-SS Stainless Steel Housing IP69K rated.

OPERATION:

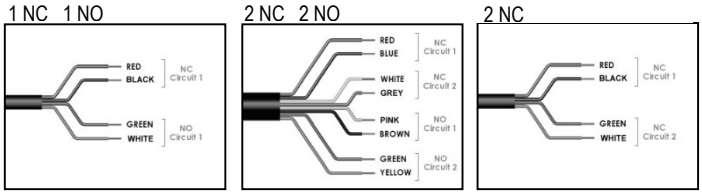
Operation of the switches is achieved by a sliding actuation of the moving object to cause deflection of the switch arm.
It is important that the moving object does not pass completely over the switch actuators so as to either cause damage to the actuator or allow it to return to its original position.

Contact blocks provide positively operated safety contacts to IEC 60947-5-1 with optional Explosion Proof (Ex) versions.

Pre-Wired EX versions

Optional EX circuits:

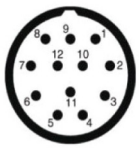
Type	IDEM LS-EX internal switch
Classification	Ex d IIC T6 (-20C Ta 60C) Gb Ex tb IIIC T85C (-20C Ta 60C) Db
Rated Voltage	250V ac/dc
Rated Current	2 pole 4A. 4 pole 2.5A.



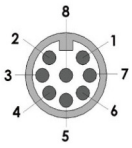
IMPORTANT:

SPECIFIC CONDITION OF USE:
THE INTEGRAL CABLE SHALL BE SUITABLY PROTECTED FROM PHYSICAL DAMAGE AND ABRASION.
THE INTEGRAL CABLE IS TO BE TERMINATED IN A SUITABLE TERMINAL FACILITY.

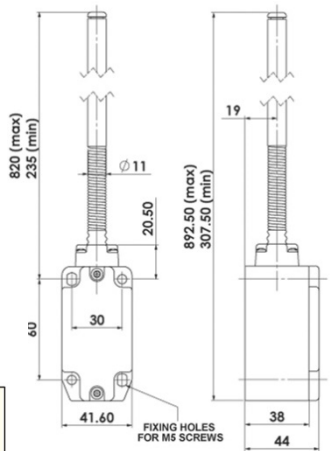
QC Quick Connect Versions

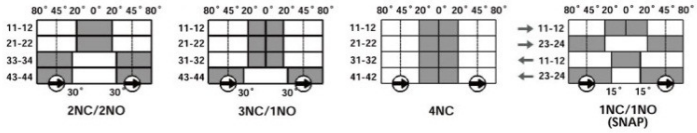


Quick Connect
Pin view from switch



Quick Connect (QC) M23 12 Way Male (connector Length 26mm) Pin view from switch	Switch Circuit	Quick Connect (QC) M12 8 Way Male (on Flying Lead 250mm) Pin view from switch
1 3	11 / 12	1 7
4 6	21 / 22	6 5
7 8	33 / 34 or 31 / 32	4 3
9 10	41 / 42 or 43 / 44	
12	Earth	8





HLM-TSL (Die-Cast) IP67

HLM-SS-TSL (Stainless Steel) IP69K

SAFETY CLASSIFICATION AND RELIABILITY DATA:	
Mechanical Reliability B10d	2.5 x 10^6 operations at 100mA load
ISO 13849-1	Up to PLe depending upon system architecture
EN 60261	Up to SIL3 depending upon system architecture
Safety Data – Annual Usage	8 cycles per hour / 24 hours per day / 365 days MTTFd 356 years
TECHNICAL SPECIFICATIONS:	
Case Material	HLM-TSL (Die Cast) HLM-SS-TSL-Ex (Stainless Steel 316)
Enclosure Protection	HLM IP67 HLM-SS IP67 / IP69K (All Connectors IP67)
Operating Temperature	Min. -25°C Max 80°C
Typical operating parameters	0.4Nm Torque 15-30 degrees contact changeover
Vibration	IEC 68-2-6, 10-55Hz 0.35mm
Conductor size	1.5 sq.mm
Fixing	M5 Bolts
Positive Opening Operation	NC Contacts
Utilization Category	AC15 A300 240V. 3A.
Min Current	5V, 5mA, DC
Thermal Current (Ith)	10A
Rated Impulse Withstand Volt	2500VAC

HLM-SS-TSL Telescopic Spring Lever Trip Limit Switch			
	M20	½" NPT	QC M23
2NC 2NO	175201	175202	175203
3NC 1NO	175204	175205	175206
4NC	175207	175208	175209
1NC 1NO Snap	175210	175211	175212
1NC 1NO EX	175213	3m. 4 core Ex	
2NC EX	175214	3m. 4 core Ex	
2NC 2NO EX	175215	3m. 8 core Ex	

HLM-TSL Telescopic Spring Lever Trip Limit Switch			
	M20	½" NPT	QC M23
2NC 2NO	174201	174202	174203
3NC 1NO	174204	174205	174206
4NC	174207	174208	174209
1NC 1NO Snap	174210	174211	174212
1NC 1NO EX	174213	3m. 4 core Ex	
2NC EX	174214	3m. 4 core Ex	
2NC 2NO EX	174215	3m. 8 core Ex	

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