



SERIES (EX)685AX9

# MECHANICAL VIBRATION SWITCH



## PATENTED LINEAR ADJUST DESIGN PROVIDES MORE LINEAR CONTROL OF TRIP SENSITIVITY

- Linear trip adjustment throughout entire range of sensitivity adjustment knob
- More equal sensitivity on all three axes compared to traditional mechanical vibration switches
- Dual SPDT Form C relays to trigger to two simultaneous actions
- 24 VDC, 120 VAC and 240 VAC remote reset models available

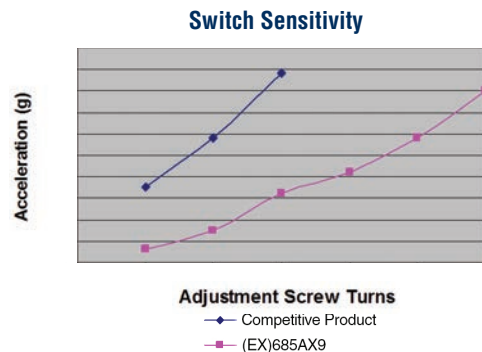
### APPLICATIONS

- Cooling Towers
- Evaporative Condensers
- Steam Condensers
- Air-Cooled Heat Exchangers (Fin-Fans®)
- Large Blowers and Fans

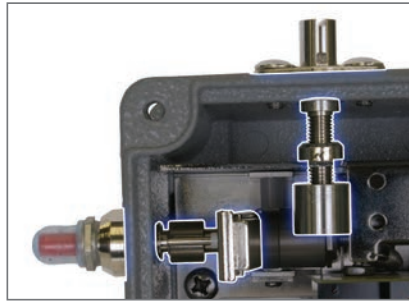


The Linear Adjustable Mechanical Vibration Switch (Models [EX]685AX9) is uniquely designed to provide improved sensitivity adjustment compared to current designs within the industry. The end result allows the user superior control of the trip level set within the switch and improving the protection of their rotating asset (reference sensitivity testing below).

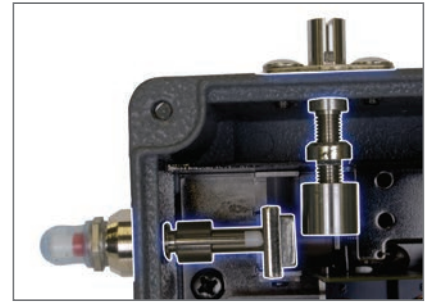
Additionally, due to its innovative design and manufacturing process, the Linear Adjust Mechanical Vibration Switch is more cost competitive than any other existing mechanical vibration switches in the industry, including OEM volume pricing.



# PATENTED LINEAR ADJUST SENSING ELEMENT

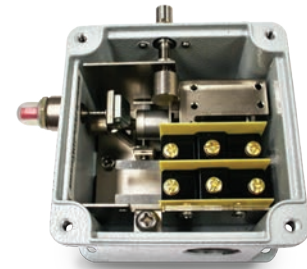


Magnet in "Open" Position



Magnet in "Closed" Position

Technical Specifications								
Model Number	685A09	685A19	685A29	685A39	EX685A09	EX685A19	EX685A29	EX685A39
<b>Performance</b>								
Measurement Range	7 g pk 68.7 m/s <sup>2</sup> pk							
Frequency Range	0 to 100 Hz 0 to 6,000 cpm							
Relay	Two SPDT Form C							
Relay Contacts	Normally Open or Normally Closed							
<b>Control Interface</b>								
Manual Reset Function	Pushbutton							
Remote Reset Function	N/A	24 VDC	120 VAC	240 VAC	N/A	24 VDC	120 VAC	240 VAC
<b>Environmental</b>								
Temperature Range (Operating)	-13 to 140 °F -25 to 60 °C							
Enclosure Rating	IP66							
Hazardous Area Approvals	N/A			CSA, ATEX, IECEx				
<b>Physical</b>								
Sensing Element	Magnet with Linear Adjustment Technology							
Sensing Geometry	Inertial Element							
Housing Material	Aluminum Alloy							
Electrical Connector	Screw Terminals							
Screw Terminal Wire Size	24-14 AWG							
Cable Input	3/4-14 NPT							
Mounting Hole	0.25 in			0.34 in				
	6.4 mm			8.7 mm				
Size (width x height x depth)	4.35 in x 3.30 in x 4.35			6.38 in x 4.18 in x 6.38 in				
	110.5 mm x 83.8 mm x 4.35 110.5 mm			162.1 mm x 106.3 mm x 162.1 mm				
Weight	2.5 lb	2.8 lb	6.1 lb	6.4 lb				
	1.1 kg	1.3 kg	2.7 kg	2.9 kg				



Model [EX]685A09  
Linear Adjust Mechanical Vibration Switch with Manual Reset



Model [EX]685A19  
Model [EX]685A29  
Model [EX]685A39  
Linear Adjust Mechanical Vibration Switch with Manual and Remote Reset



3425 Walden Avenue, Depew, NY 14043-2495 USA

Toll-Free in the USA: 1 800 959 4464

Phone: 1 716 684 0003 | Email: imi@pcb.com

IMI Sensors, a division of PCB Piezotronics, Inc. manufactures industrial vibration monitoring instrumentation, such as accelerometers, vibration transmitters and switches that feature rugged stainless steel housings and survive in harsh environments like paper and steel mills, mines, gas turbines, water treatment facilities and power plants. Integrating with portable analyzers and PLC's, IMI instrumentation helps maintenance departments reduce downtime and protect critical machinery. Visit IMI Sensors at [www.pcb.com](http://www.pcb.com). PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corporation. Additional information on MTS can be found at [www.mts.com](http://www.mts.com).

© 2019 PCB Piezotronics, Inc. In the interest of constant product improvement, specifications are subject to change without notice. PCB®, ICP®, Swiveler®, Modally Tuned®, and IMI® with associated logo are registered trademarks of PCB Piezotronics, Inc. in the United States. ICP® is a registered trademark of PCB Piezotronics Europe GmbH in Germany and other countries. UHT-12™ is a trademark of PCB Piezotronics, Inc. SensorLine™ is a service mark of PCB Piezotronics, Inc. SWIFT® is a registered trademark of MTS Systems Corporation in the United States.

IMI-SWC-685A09-0919



MTS Sensors, a division of MTS Systems Corporation (NASDAQ: MTSC), vastly expanded its range of products and solutions after MTS acquired PCB Piezotronics, Inc. in July, 2016. PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corp.; IMI Sensors and Larson Davis are divisions of PCB Piezotronics, Inc.; Accumetrics, Inc. and The Modal Shop, Inc. are subsidiaries of PCB Piezotronics, Inc.