

# CVM™ Switch

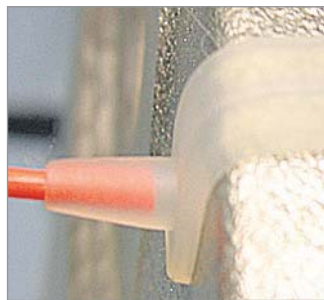
BY STRUCTURAL MONITORING SYSTEMS



## *Quicker and Cheaper fatigue testing*

- Quality control / Developmental testing
- Small crack detected in real time
- Appropriate action automated
  - test stopped
  - alarm (light/sound) triggered
  - signal sent

Self-adhesive sensor(s) are applied to the area(s) of interest and are monitored during fatigue testing via CVM Switches. An alarm is triggered immediately a crack breaches the sensor. In addition a built in relay can also stop the test if desired. Multiple sensors can be monitored through multiple switches or crack growth can be monitored through multi-channel sensors.



### **CVM™ Switch**

- Small and Lightweight and Rugged
- Latching & Non-Latching Modes
- Normally Open and Normally Closed Relay contacts
- DIN Rail Mounting
- Wide operating Voltage (9-36Vdc)
- Lead Free
- Low Current (150mA)
- CE, FCC, C-tick Compliant

### **CVM™ Sensors**

- Any shape / size
- Self adhesive and easy to apply
- Lightweight and Flexible
- Durable and fatigue resistant
- In-expensive, 'one-test' variants
- Comply to rough surfaces (castings)

## Remote Structural Monitoring with CVM™ Switch Packs:

Continuous monitoring of known fatigue critical areas on machines and structures such as mining equipment, bridges and pipelines is made simple with a self contained CVM Switch monitoring pack. Low power consumption enables solar panel supply and an integral

transmitter can signal from remote areas to a control centre if and when a crack initiates or reaches a pre-determined length. This opens up many possibilities for reducing downtime and increasing safety and allows on condition maintenance actions.



### Materials

COMPONENT	MATERIAL
Plastic Case	PC & ABS Blend
Terminals	Polyamide 6.6, Brass, Tin Plated
DIN Rail Clip,	
Screws & Washers	Stainless Steel
Brass Nutsert	Brass
Vacuum Switch	Copper, Glass filled polyester, Silver, Silicone
PCB	FR4, Copper
HIT	Polyethylene
Port Covers	PVC
Side Label	PVC
Fascia Label	Polycarbonate 8a35
S0604 (Internal Pneumatics)	Silicone
PCA	Other RoHS compliant Electrical components

### Specifications

PROPERTY	SPECIFICATION
Survival Temperature	-40 to 80° C
Operating Temperature	-40 to 80° C
Voltage Operating	9V dc - 36V dc
Maximum Surge Voltage	75V
Supply Current	150mA
Relay switching load (max)	110V dc, 1A dc
Relay switching load (min)	10mV dc, 10uA dc
Vacuum Source	20kPa - 40kPa
Ingress Protection Rating	IP54
Operating Humidity	0 to 95% non-condensing
EMC Compliance –	FCC part 18 (class B), CE & C-tick CISPR 11 (class B)
Case Dimensions –	
excluding ports	47mm x 38mm x 92mm
including ports	47mm x 38mm x 103mm
Weight	120 grams



**Quality System**  
**Quality Endorsed Company**  
 ISO 9001  
 Lic. 13267

Patented in Australia (Au) 673740  
 USA (US) 5,770,794  
 Europe (EU) EP 0 700 510 B1  
 Applications filed in 24 Countries



**STRUCTURAL MONITORING SYSTEMS**

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