

# Yekan MS60/ Mechanical Vibration Switch

## Datasheet

Rev. V2.2



## Description

**Yekan's** Mechanical Switch, designed specifically for demanding environments where reliability and precision are paramount. This high-performance switch is engineered to operate within a broad explosion-proof range, safeguarding against the risks associated with vibration exposure. Our Mechanical Switch stands out for its robust construction, ensuring longevity and consistency under the most challenging conditions. With an operating range efficiently set between -40°F and +194°F (-40°C and +90°C), it adapts seamlessly to diverse temperature fluctuations. The unique design allows for precise set points within the range of 0 to 5 g, making it an ideal choice for various applications requiring accurate vibration detection. This switch is not only reliable but also easy to integrate into existing systems, enhancing operational safety without compromising performance. Furthermore, this switch is designed for both vertical and horizontal mounting.

## Ordering Information

### MS60 Mechanical Vibration Switch

#### MS60-ABC-DD

Designation	Description
<b>MS60</b>	Mechanical Switch Amplitude Range 0 - 5 g

#### A: Relay Contacts

<b>1</b>	SPDT, Silver
<b>2</b>	DPDT, Silver

#### B: Reset / Startup Delay Coil Voltage

<b>1</b>	None
<b>2</b>	110 - 115 - 120 VAC
<b>3</b>	220 - 230 - 240 VAC
<b>4</b>	24 VDC
<b>5</b>	48 VDC
<b>6</b>	110 - 115 - 120 VDC

#### C: Wiring Entry

<b>1</b>	3/4" NPT
<b>2</b>	1/2" NPT
<b>3</b>	M20 x 1.5

#### DD: Mounting Hole Pattern

<b>01</b>	Default Yekan
<b>02</b>	Robershaw 365
<b>03</b>	Robershaw 366
<b>04</b>	Metrix 5550 (5173 or 5175)
<b>05</b>	Metrix 5550 (5097)
<b>06</b>	Metrix 5550 (5078)
<b>07</b>	Metrix or PMC-BETA 440
<b>08</b>	Murphy VS2
<b>09</b>	Murphy VS2EX
<b>10</b>	PVTVM PT500-13
<b>11</b>	PVTVM PT500-14
<b>12</b>	SAMI VBS
<b>13</b>	FFE 3171

## Specifications

<b>Amplitude Range</b>	0 - 5 g pk
<b>Frequency Range</b>	0-300 Hz (0-18000 rpm)
<b>Setpoint Adjustment</b>	<b>Location:</b> Externally Accessible
	<b>Resolution:</b> ±0.2 g
<b>Local Reset</b>	Manual plunger-style pushbutton on switch housing
<b>Temperature Limits</b>	-40°F to +194°F (-40°C to +90°C)
<b>Accuracy</b>	± 5% of full range at frequencies up to 300 Hz
<b>Contact Arrangements</b>	SPDT or DPDT
<b>Contact Ratings</b>	<p><b>Designation "SPDT":</b> Noninductive: 15A max 125,250 OR 480 VAC. 2A max at 24 VDC, 1A max at 48 VDC, 0.5A max at 120 VDC.</p> <p><b>Designation "DPDT":</b> Noninductive: 3A max at 250 VAC. 5A max at 125 VAC. 4A max at 24 VDC, 3A max at 48 VDC, 0.4A max at 120 VDC.</p> <p>Inductive: 1/4 HP at 250 VAC. 1/5 HP at 125VAC.</p>
<b>Reset Coil Power</b>	24 VDC, 0.6A ±5% 48 VDC, 0.4A ±5% 120 VDC, 0.5A ±5% 120 VAC, 0.5A ±5% 240 VAC, 0.45A ±5%
<b>Weight</b>	Net..... 5 lbs. Shipping..... 5.5 lbs.
<b>Housing</b>	Meets Class I, Div. 1, Groups C & D, and Class II, Div. 1, Groups E, F, & G, hazardous classification
<b>Mounting direction</b>	Vertical and Horizontal
<b>Casa Material</b>	CAST ALUMINIUM 365-T6 (COPPER FREE)
<b>Accessory Equipment (Optional)</b>	Control Units are available which offer "Starting Time Delays" and "Monitoring Time Delays" to prevent false shutdown or alarm conditions.

## Figures

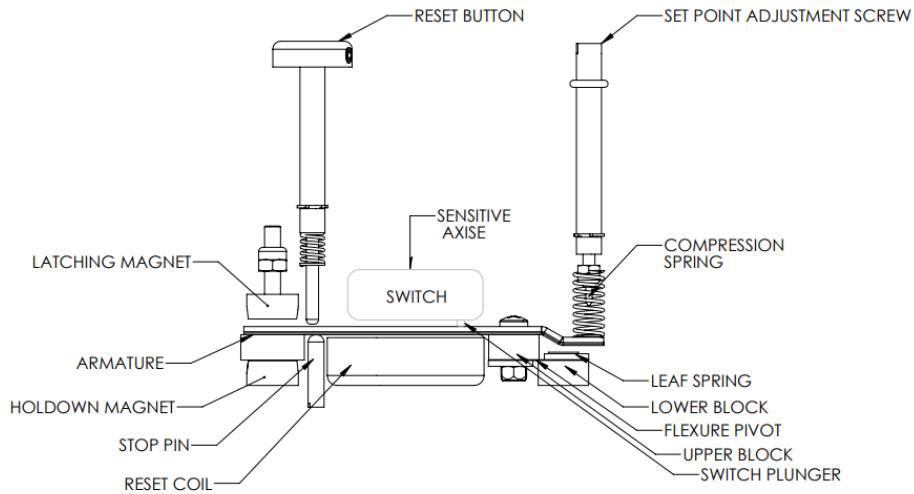


Figure 1. MS60 Mechanism

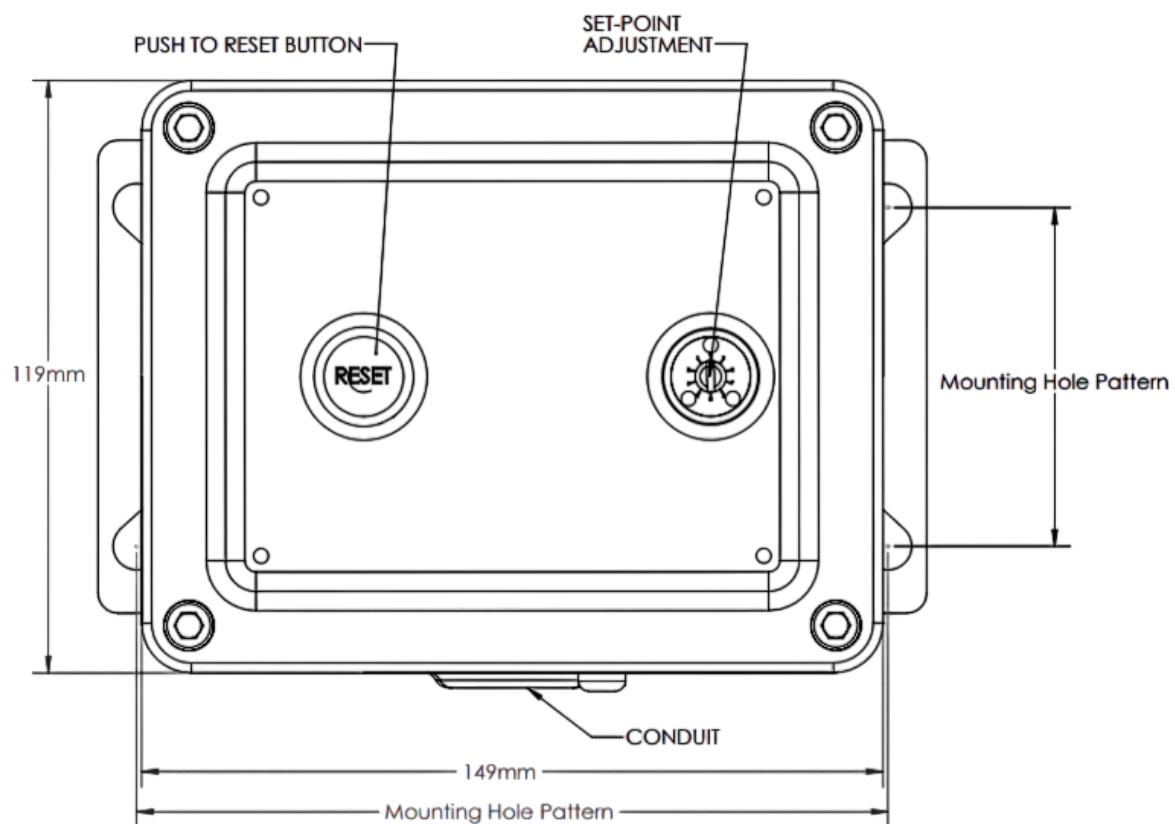


Figure 2. MS60 top view

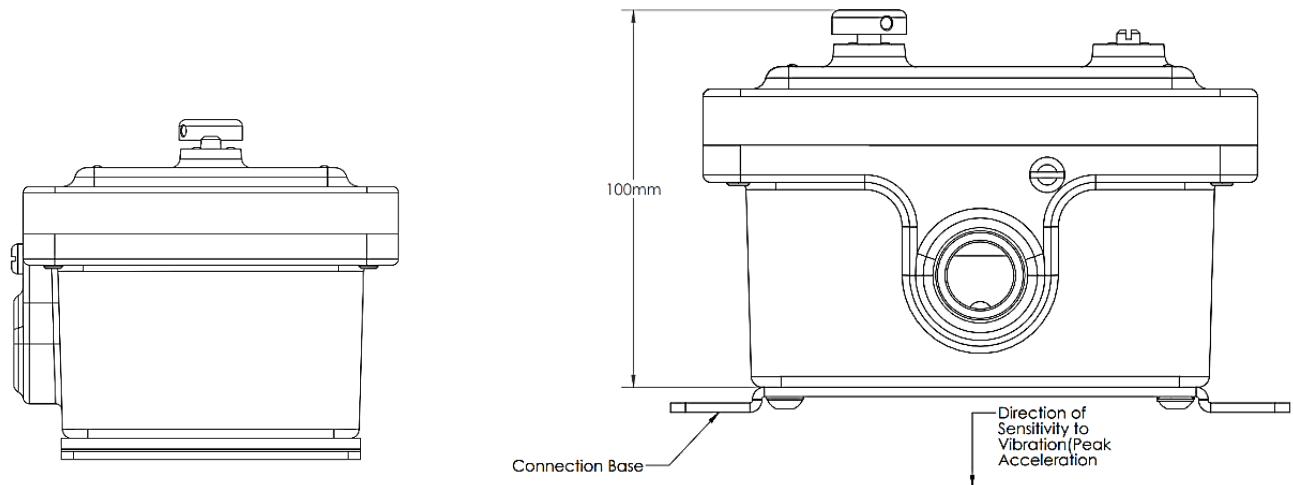


Figure 3. MS60 side view

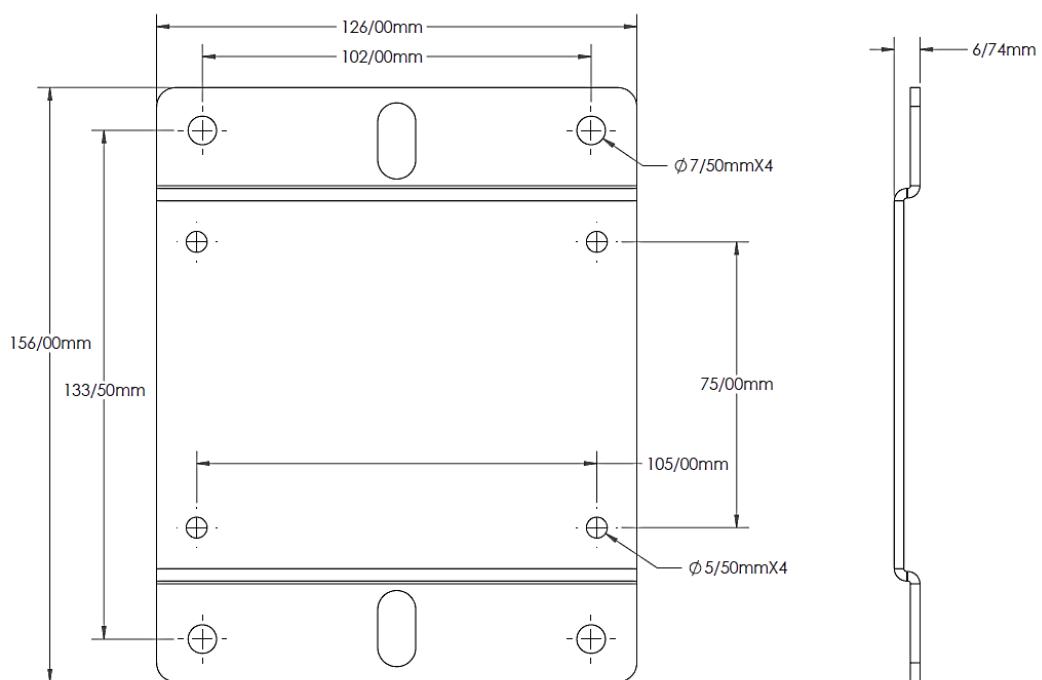


Figure 4. Default Yekan Mounting Hole Pattern "DD: 01"

## Features & Benefits

<b>Explosion Proof</b>	EX db IIC T6 T5 T4 ; IP66
<b>Self-Powered</b>	Does not require external power to operate. (Except remote reset)
<b>Acceleration Sensitive</b>	Measures destructive forces.
<b>Minimum Maintenance</b>	No moving parts except at trip level.
<b>Continuous Protection</b>	No attention required after installation.
<b>Ease of Installation</b>	Requires no special training.
<b>Long Life</b>	Instrument is rugged and durable-no wear.
<b>Ease of Adjustment</b>	Set it and forget it-one adjustment.
<b>Reset</b>	Remote electrical or manual at unit.
<b>AC or DC</b>	Reset coil options. O-Ring Shaft Seals Standard

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