JERGUSON®
A Division Of The Clark-Reliance Corporation

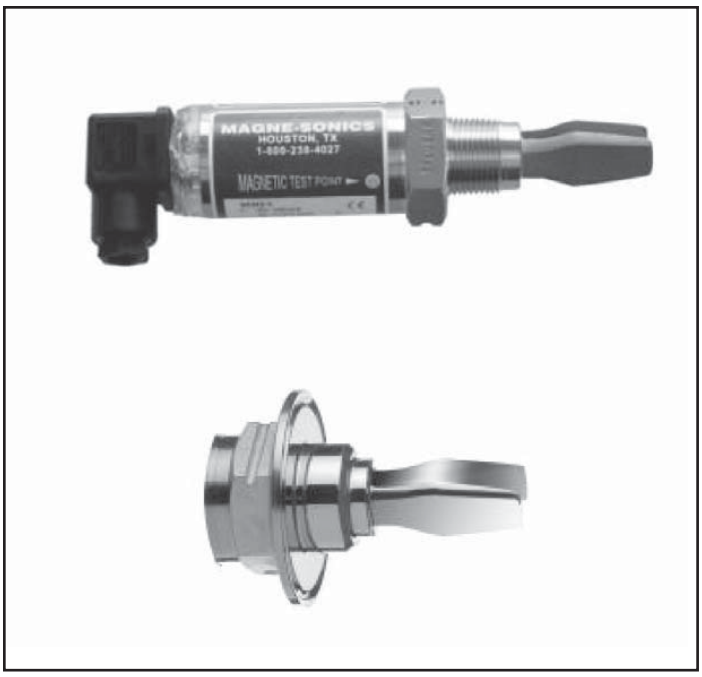
Specialists in Liquid Level Indication

Installation, Operation and Maintenance for

JMSVT Vibrating Tuning Fork

Liquid Level Switch

Section: JS100
Bulletin: JS100.20
Date: 2/7/12



FEATURES

- **Heartbeat Led**
- **Failsafe High**
- **Magnetic Test Point**
- **Hygienic Fittings**
- **Resistant to Bubbles & Vibration**
- **Reverse polarity protected**
- **Small Fork for Minimal Vessel Intrusion**

OPERATION

The JMSVT series is designed using the principles of a tuning fork. Piezo-electric crystals are used to force the forks to oscillate at their fundamental frequency (natural resonance.) If the JMSVT is installed as a high alarm, the forks are free to oscillate in air, as your liquid level rises and covers the forks they are dampened – it is this change in the frequency that indicates the JMSVT to switch. With different electronic outputs to choose from, this allows you to switch a load on / off or interface directly with your PLC. A compact switch with a rugged stainless steel body for use in a wide range of liquids, JMSVT is the stock answer to your level switch needs.

SPECIFICATIONS

JMSVTO * Direct load switching
Power Supply: 21 to 264 ac/dc.....(50/60Hz)
Max. switched load.....500 mA
Max. peak load.....5 A
Min. switched load.....20mA continuous
Voltage drop 6.5V @ 24V dc / 5.0V @ 240V ac
Current drawn (load off).....<3.0mA continuous
Supply current.....N/A
Output current (load).....N/A

PNP Switching JMSVT1*
Power supply.....18-60Vdc
Max. switched load.....500 mA
Max. peak load.....5A
Min. switched load.....N/A.
Voltage drop.....<3V
Current drawn (load off).....N/A
Supply current.....3 mA nominal
Output current (load off).....<0.5 mA

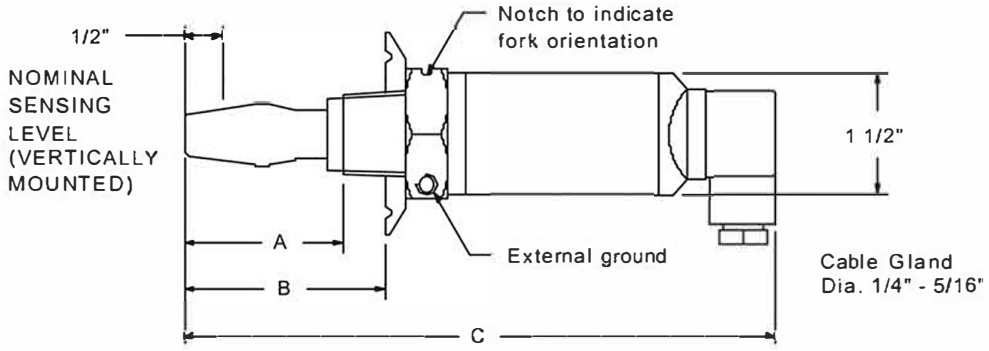
ISO 9001 REGISTERED Clark•Reliance

JERGUSON® GAGE AND VALVE
A Division of The Clark • Reliance® Corporation
16633 Foltz Industrial Parkway • Strongsville, OH 44149 USA
Telephone: (440) 572-1500 • Fax: (440) 238-8828

TECHNICAL DETAILS

Wetside material	316L Stainless steel
Gasket (1" BSPP model only)	None-asbestos
Body	304 Stainless steel
LED window	Flame retardent Polyamide (Pa12) 12 UL94 V2
Plug	Polyamide (+G) Plug seal Nitrile butadiene rubber
Protection rating	NEMA 4X
Operating temperature range	-40 DEG. F to +302 DEG. F CIP cleaning 10,000 cycles for 30 minutes
Ambient temperature range	-40 DEG. F to 176 DEG. F (derated) to122 DEG. F at 302 DEG. F wetside
Max. pressure	1480 PSIG
Specific gravity range	0.6 to 2.0 Liquid viscosity range 0.2 to 10,000 cps
Switching point (water)	1/2" from tip (vertical) / from edge (horizontal) of fork
Hysteresis (water)	+/-.04" Switching delay 1 second dry to wet / wet to dry

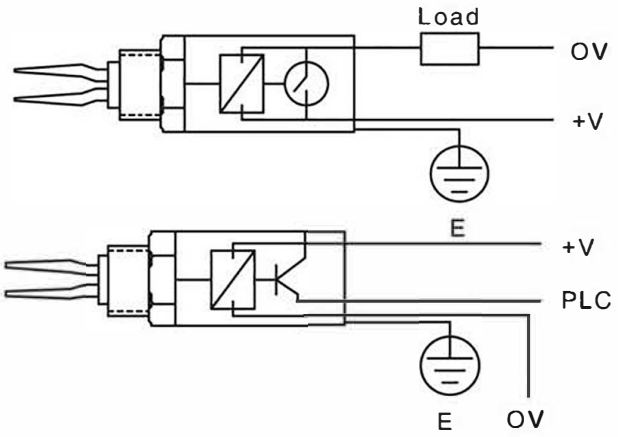
DIMENSIONS



MODEL SELECTION GUIDE

JMSVT MINI TUNING FORK SWITCH		
MODEL	***SWITCH TYPE***	***CONNECTION***
JMSVT00	Direct Load	3/4" BSPT
JMSVT03	Direct Load	1" BSPT
JMSVT05	Direct Load	3/4" NPT
JMSVT07	Direct Load	2" Tri-Clamp
JMSVT0F	Direct Load	1" BSPP
JMSVT0L	Direct Load	1" BSPP Semi-Extended
JMSVT10	PNP	3/4" BSPT
JMSVT13	PNP	1" BSPT
JMSVT15	PNP	3/4" NPT
JMSVT17	PNP	2" Tri-Clamp
JMSVT1F	PNP	1" BSPP
JMSVT1L	PNP	1" BSPP Semi-Extended

JMSVT07 & JMSVT17 POLISHED TO 32 µin Finish
(16 µin Finish Optional)



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