

L90 SERIES VIBRATING FORK LEVEL SWITCH



DESCRIPTION

The L90 Series Vibrating Fork Level Switch is a heavy-duty, stainless steel tuning fork for measuring liquids across a range of media and applications. When placed in liquids, the frequency of the vibrating fork falls relative to its natural resonance frequency in free air, sending an electronic signal detecting the presence of liquid. These durable, yet compact, devices come with a wide range of electrical connections, outputs, fittings, fork lengths and a number of other selections to meet any end-user demands. These devices are ideal in free-flowing liquids, and for flow detection in pipelines. They can be mounted on the top or side of tanks, and can operate in temperatures up to 392°F and pressures up to 215 PSIG.

KEY FEATURES

- Durable construction
- Wide range of sensing surface materials to meet any media
- Variable fork length to meet any application or tank need
- Fast Switching Response
- Ability to operate in high temperatures and elevated pressure environments
- Numerous threaded & flanged Mountings
- Ingress protection : IP 68/65 (as per IS-13947)
- Vibration complied as per IEC 60068 part 2-6
- Low power consumption



SPECIFICATIONS

| Electrical | | Other | |
|--|---|--|---|
| EIUD Supply & Output Relay Contact | Integral / Remote Electronics DPDT Output Universal Supply DPDT Out 15 to 80 VDC 15 to 260 VAC 50/60Hz 5 A each @ 24VDC or 220VAC | Sensor Cable | Remote electronics require special cable from fork to controller 10 meter standard length (more available on demand) |
| EIDP / ERDP Supply & Output Output Limit | Integral / Remote Electronics for PNP Output 12 to 60 VDC, PNP 250mA max. Short Circuit Safe | Max. Viscosity Ambient Temp. Process Temp. Extended Process Temperature Process Pressure Wetted Parts | 10,000 cStokes (= cPose/(g/cm ³)) (Higher viscosity available on request) -20°C - 70°C (-4°F - 158 °F) -20°C - 80°C (-4°F - 176 °F) -30°C - 200°C (-22°F - 392 °F) (extensions & heat sinks required) absolute / max. 15 bar SS 316 or SS 316L, PTFE, PFA, TEFLON, HALAR |
| EINL/EINH Supply & Output | NAMUR (L-H / H-L) as per IEC-60947-5-6 8.2 VDC 1K Ω series resistance | Output Connections | NPT / BSP / Hygienic ½", ¾", 1", 1¼", 1½", & Flanged ANSI/JIS/DIN/ASA/custom |
| EIUSP / ERUSP Supply & Output Relay Type and Rating PNP Output | Integral / Remote Electronics SPDT + PNP output Universal Supply for SPDT output 15 to 80 VDC 15 to 260 VAC 50/60Hz DC Supply for PNP Output 15 to 60 VDC Potential Free SPDT Relay Output 5 A each @ 24VDC or 220VAC 250mA max. Short Circuit Safe | Vibration Test Extensions Tube Material & Length | As per IEC 60068part 2-6 sinusoidal, 10-55Hz, 0.15mm SS 304, SS 316, SS 316L 50mm to 3,000mm |
| EIAR Supply & Output Output Limit | Integral Electronics AC series relay Two Wire 18 to 260 VAC, Series Relay not less than 4mA to release external relay maximum 150mA to magnetize relay Use relays/contactors with more than 4mA holding current | Typical Mountings | |
| EIDL Supply & Output Output Limit | Integral Electronics 4-20mA Loop Powered Two Wire DC 8 / 16mA & 4 / 20mA 15 to 60 VDC 8mA (±1mA max) / 16mA (±1mA max) 4mA (±1mA max) / 20mA (±1mA max) | | |
| EIPFM Supply & Output | Integral Electronics PFM Sourced Powered From PFM Tester device < 30VDC PFM Output 50Hz / 150Hz 200 μS, 10mA | | |

ORDER GUIDE

L90 Series

| L90 | Hxx | Tx | Sx | Gx | Px | Cx | Exxx | Lxxxx | FLxx |
|-----|--|--|--|--|---|---|---|------------------|---|
| | Enclosure | Material Temperature | Sensing Surface Material | Sensor Extension Material | Process Connection Type | Process Connection Material | Electronics (See Page 2 for Description) | Insertion Length | Flange Type and Bore Size |
| | HAN: Aluminum Non-Hazardous IP-66/68 HAX: Aluminum Flameproof IIa, IIb and IIc HSN: Stainless steel HPN: Polycarbonate (Plastic) HES: Customer Specified / Designed | T1: max 80°C T2: max 200°C TS: Customer specified / Designed | S6: SS-316 SL: SS-316L ST: PTFE coated SF: PFA coated SZ: TEFZEL SH: HALAR coated SS: Special surface | G4: SS-304 G6: SS-316 GL: SS-316-L GT: PTFE coated GF: PFA coated GZ: TEFZEL coated GH: HALAR coated GS: Special surface | PFL: Flanged Type (See end of order code) PB1: 1" BSP PB2: 1 1/2" BSP PB4: 1 1/4" BSP PB5: 2" BSP PN1: 1" NPT PN2: 1 1/2" NPT PN4: 1 1/4" NPT PN5: 2" NPT PT1: Triclover/ Triclamp 1 1/2" PT2: Triclover/ Triclamp 2" PCS: Special Process Connection | C4: SS-304 C6: SS-316 CL: SS-316 CT: PTFE c oated CF: PFA Coated CS: Special Material | EIUD EIDP EINL EIUSP EIAR EIDL EINH EIFS ERUD ERFS | 50mm - 3000mm | As specified for ASA / ANSI / JIS / DIN / Custom |

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