

LMS100

Magnetic level gauge switch

Measurement made easy

K-TEK Level products



Introduction

The LMS100 is a magnetically actuated single pole double throw switch. When the LMS100 is mounted on a KM26 Magnetic liquid level indicator, LS Series Cage Level switch or an external chamber that contains a magnetic float, it can sense high or low levels within a vessel. The unique magnetic coupling action eliminates the need for seals, diaphragms, springs, or torque tubes. There is no physical contact between the switch and the process. Magnetic coupling also eliminates the necessity of process connections and insures total isolation from the process.

Features

- Unique concept of magnetic coupling, eliminating direct contact with process
- No process piping or valves required
- Easy mounting and adjustment; only small screwdriver required
- Trip point infinitely adjustable (excluding cryogenic applications) without changing process piping
- Hermetically sealed SPDT switch contacts (NO or NC)
- Switch is encapsulated within a Stainless Steel housing
- Designed and constructed to FM/FM-C, UL, NEMA, ANSI / ISA and ATEX / IEC guidelines

SPECIFICATIONS:

Switch type	Magnetically actuated, hermetically sealed, bi-stable switch. Single pole, double throw (Form C)
Contact Material	Rhodium alloy
Switch Action	Break before make
Max Deadband	Approx. +/- 0.75 in. (1.9 cm) of float travel
Contact Ratings	Maximum voltage: 250 V AC/DC Maximum current: 1 A Maximum power: 60 W/VA
Minimum operating temperature	-40 °F (-40 °C) Contact factory regarding use in colder applications
Maximum operating temperature	300 °F (149 °C) For process temperatures to 800 °F (427 °C), see mounting options, below
Vibration	Tested to IEC 60068-2-6 (2-2000 Hz, 2 g)
Shock	Tested to IEC 60068-2-29 (10 g) and IEC 60068-2-27
Impact	Tested to IEC 60079-0 (1 kg)
Freefall	Test to IEC 60068-2-31 (0.5 m, 6 falls)

Hazardous Area Rating:

FM / FM-C

- $-40\text{ °C} \leq T_A \leq 70\text{ °C}$
- IS: CLI GP ABCD T6 / CLI Zn0 AEx ia IIC T6...T1 / Ex ia IIC T6...T1 Ga / CLII GP EFG T6 / CLIII T6 / Zn20 AEx ia IIIC T85°C...T450°C
- XP: CLI GP ABCD T6 / CLI Zn1 AEx d IIC T6...T1 / Ex d IIC T6...T1 Gb / CLII GP EFG T6 / CLIII T6 / Zn21 AEx tb IIIC T85°C...T450°C
- NI: CLI DIV2 GP ABCD T6 / CLI Zn2 AEx nC IIC T6...T1 / Ex nC IIC T6...T1 Gc / CLII DIV2 GP EFG T6 / CLIII

ATEX / IECEx

- $-40\text{ °C} \leq T_A \leq 70\text{ °C}$
- II 1 G / Ex ia IIC T6...T1 Ga
- II 1 D / Ex ia IIIC T85°C...T450°C Da
- II 2 G / Ex d IIC T6...T1 Gb
- II 2 D, Ex tb IIIC T85°C...T450°C Db
- II 3 G / Ex nC IIC T6...T1 Gc

EAC / Ex

- 1Ex d IIC T6...T1 Gb X
Ex tb IIIC T85°C...T450°C Db X
- Ex nC IIC T6...T1 Gc X
- 0Ex ia IIC T6...T1 Gb X $U_i < 1\text{B}$, $C_i < 10\text{нФ}$, $I_i < 250\text{mA}$, $L_i < 10\text{мкГн}$

Electrical Cable Connection 1/2 in. FNPT connection

Mounting options For process temperatures to 575 °F (301.6 °C) use switch LMS100.P1 with insulation pad. For process temperatures to 800 °F (427 °C) use switch LMS100.A2 with rod mount brackets with insulated KM26 Gauges, or, on ST95 Seal Fluid Supply Tanks with rod mount brackets.

Housing 316SS, NEMA 4X IP66/IP67, Cable entry 1/2" FNPT

Application note Inductive and Capacitive loads require special considerations. Contact factory for technical literature and assistance.

Accessories **IR10 10 Amp Relay Output Module and PP10 PUMP-PAK Controller. See appropriate sales literature for details.**



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