



**LK Series
Liquid Flow Monitor
with Alarm Switch**

Features

Field Adjustable Alarm

Only a screwdriver is required to change the flow alarm setting.

Weather-Tight Construction

The rugged cast aluminum NEMA type 4X enclosure allows installation in outdoor applications and in environments where liquid tight seals are required.

Simple On/Off Logic

Positive alarm points using 10 Amp., dry-contact, SPDT switch(es), reduce the complexity found in some rotameter OFF/ON/OFF circuits.

Pre-Wired with DIN Plug Cable Disconnect

The standard Hirshmann DIN plug provides easy installation and maintenance of the Flow Alarm and the systems it is connected to.

Unrestricted Mounting

Allows the designer to install the monitor in any orientation - horizontal, vertical inclined or inverted.

Economical Protection

This monitor rapidly pays for itself as it "sounds the alarm" on incorrect process, lubrication or cooling flows, protecting expensive equipment and reducing downtime.

Quality Assurance

Can be an integral part of a quality control system, yielding consistent system operation and performance.

Flow Monitor Performance

Measuring Accuracy:	+/- 2.5% of full scale in the centre third of the measuring range +/- 4% of full scale over the entire scale range
Repeatability:	+/- 1% of full scale
Flow Measuring Range:	0.05 - 150 USGPM (0.2 - 560 LPM) See flow ranges on page 3
Maximum Operating Pressure:	Aluminum and Brass monitors: 3500 PSIG (240 Barg) Stainless Steel monitors: 6000 PSIG (410 Barg)
Maximum Operating Temperature:	Media: 240°F (116°C), ambient: 180°F (82 °C)
Pressure Differential:	See graphs on page 2
Standard Calibration Media:	Oil monitors: DTE 25@ at 110°F (43°C), 0.873 s.g. Water monitors: tap water at 70°F (21°C), 1.0 s.g.
Enclosure:	NEMA type 4X (UL Approved)

Alarm Switch Performance

Alarm Switch Dead-Band:	4% of full scale
Alarm Switch Contacts:	SPDT (dry contact), UL / CSA rating: 10 Amps and ¼ hp, 125 or 250 VAC. ½ Amp, 125 VDC; ¼ Amp, 250 VDC; 3 Amps, 125 VAC "L" (lamp load)

Typical Engineering Specifications

The in-line flow rate monitor with alarm shall:

- have field adjustable, dry-contact, alarm setting(s)
- use the variable annular orifice technique with compression spring recovery
- not require inlet or outlet straight plumbing, or require vertical pipe mounting
- have a measuring accuracy of +/- 2.5% of full scale in the centre third of the measuring range, and +/- 4% of full scale accuracy over the entire flow measuring range
- have a stainless steel sharp-edged orifice
- have a working pressure rating of 3500 or 6000 PSIG for liquids
- have a weather-tight NEMA type 4X aluminum enclosure construction
- be Muis Controls LK Series No. M__ - __ - __ - __ for single alarm applications, or N__ - __ - __ - __ for dual alarm applications

**See Page 3
for
Model Number Matrix
and
Available
Flow Ranges**

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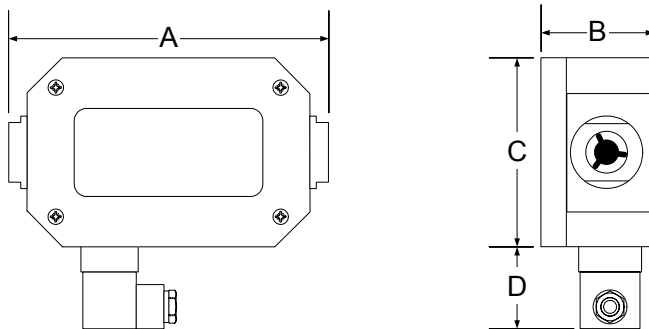
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Standard Materials of Construction (Wetted Components)

Basic Body Material	Aluminum	Brass	Stainless Steel
High-pressure casing, end ports and tapered shaft	Aluminum	Brass	304 St. St.
Seals	Buna-N (STD), EPR, Viton, Aflas or Kalrez	Buna-N (STD), EPR, Viton, Aflas or Kalrez	Viton with Teflon backup (STD), Buna-N, EPR, Aflas or Kalrez
Transfer Magnet	Teflon coated Alnico		
Floating Orifice Disk	Stainless Steel		
All other internal parts	Stainless Steel		

Standard Materials of Construction (Non-Wetted Components)

Basic Body Material	Aluminum	Brass	Stainless Steel
Enclosure and Cover	Aluminum		
Seals	Buna-N		
Window	Pyrex		
Din Connector	Polyamide		

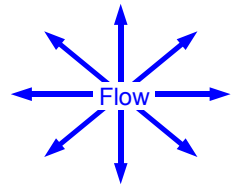


Dimensions

Code	Series 3	Series 4	Series 5	Series 5
A	6 ⁹ / ₁₆ " (167 mm)	7 ⁵ / ₃₂ " (182 mm)	10 ¹ / ₈ " (258 mm)	12 ⁵ / ₈ " (322 mm)
B	2 ³ / ₁₆ " (56 mm)	2 ¹⁵ / ₁₆ " (75 mm)	3 ¹³ / ₁₆ " (97 mm)	3 ¹³ / ₁₆ " (97 mm)
C	4" (101 mm)	4 ¹ / ₂ " (114 mm)	5 ⁵ / ₁₆ " (135 mm)	5 ⁵ / ₁₆ " (135 mm)
D	1 ⁷ / ₈ " (47 mm)	1 ⁷ / ₈ " (47 mm)	1 ⁷ / ₈ " (47 mm)	1 ⁷ / ₈ " (47 mm)
Port Sizes	NPTF: 1/4", 3/8", 1/2"	NPTF: 3/4", 1"	NPTF: 1 1/4", 1 1/2"	NPTF: 2"

Mount in Any Orientation

*Upward Flow
Downward Flow*



Horizontal Flow



Inclined Flow

Model Number Chart

See Example Below



**LK Series
Liquid Flow Monitor
with Alarm Switch**

Code	Style
M	In-Line Flow Monitor with One Adjustable Alarm Switch
N	In-Line Flow Monitor with Two Adjustable Alarm Switches

Code	Size Code (Match Flow Range to Size Code from Tables Below)
2	1/8 to 1/4 inch
3	1/4 to 1/2 inch
4	3/4 to 1 inch
5	1 1/4 to 2 inch

Code	Material (Flow Tube and Connections)
A	Aluminum
B	Brass
S	Stainless Steel

Code	Pressure Rating
6	3500 PSIG Maximum (Aluminum and Brass only)
7	6000 PSIG Maximum (Stainless Steel only)

Code	Fluid Media
H	Hydraulic Oil (0.873 Specific Gravity)
W	Water (1.0 Specific Gravity)

Code	Connection Size - Code from Table Below
D	30

Code	Flow Range - Code from Table Below
30	30

M 4 S - 7 W D - 30 ◀ Typical Model Number

Flow Ranges for Liquid

Size Code	Oil or Water	Range Code
2 & 3	0.05 - 1 USGPM	01
3 only	0.1 - 1 USGPM water	
2 & 3	0.2 - 2 USGPM	02
4 only	0.2 - 2.6 USGPM	
3 only	0.5 - 5 USGPM	05
4 only	0.5 - 5 USGPM	
3 & 4	1 - 10 USGPM	10
3 & 4	1 - 15 USGPM	15
4 only	2 - 20 USGPM	20
4 & 5	2 - 25 USGPM	25
4 only	3 - 30 USGPM	30
4 only	4 - 40 USGPM	40
4 only	5 - 50 USGPM	50
5 only	5 - 50 USGPM	
5 only	8 - 75 USGPM	75
5 only	10 - 100 USGPM	88
5 only	15 - 90 USGPM water	
5 only	20 - 150 USGPM	99

Connection Size

Code	Port	Size Code
I	1/8" NPTF	2 only
S	1/4" NPTF	2 & 3
A	3/8" NPTF	3 only
B	1/2" NPTF	3 only
C	3/4" NPTF	4 only
D	1" NPTF	4 only
K	1 1/4" NPTF	5 only
L	1 1/2" NPTF	5 only
M	2" NPTF	5 only

Other LK Series Flow Monitors



**High Pressure
Liquid Flow
Monitors**



**High Pressure
Flow Monitor
with Electronic
Transmitter**



**High Pressure
Gas
Flow Monitor**

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