

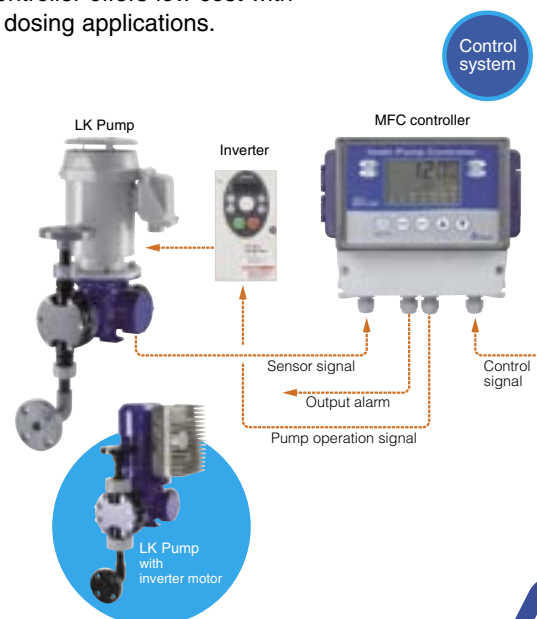
## Pump controller MFC



## Multifunction pump controller for LK-F series metering pumps

The MFC controller is designed specifically for LK-F series metering pumps & offers excellent controllability. Automatic control of pump stroke rate between 0 and 120 spm is possible. The MFC controller automatically monitors the actual stroke feed back signal to enable accurate stroke rate control. The large LCD display and touch keys offer user-friendly operation. A key lock function is also provided for control security. The combination of LK-F series pump with MFC pump controller offers low cost with a wide range of automatic control operation for chemical dosing applications.

- Capable of analogue input (4~20mA) and pulse input (Dividing/Multiply) operation
- Operating functions of the pump can be monitored via external output signal.
- Easy key touch operation and a large LCD display give good control legibility.
- Display preference of flow rate (L/min) or stroke rate (SPM) is user-selectable.
- Combination of stroke length adjustment with stroke rate enables flow volume control over a wide range of 1:480.
- Various additional functions such as key lock, fast priming and control of external level sensors assist in management of chemical dosing requirements.



Control system



## Specification

Operation function	Function	Manual (Manual operation) EXT (External signal operation)
Control function	Setting	Manual Stroke rate • MFC-L10W-2: 1 - 120 spm      • MFC-L10W-1: 1 - 60 spm
	EXT	1. Analog input operation ⊙ 4 - 20mA, ⊙0 - 20mA, ⊙20 - 4mA, ⊙20 - 0mA, ⊙Optional 2 points setting 2. Digital input operation ⊙ Multiply: 1 : n   N=1 - 999      ⊙ Dividing: n : 1   n=999 - 1
Display	LCD	• Main: 4-digits 7 segments      • Sub: 4-digits 14 segments Display of spm set value, running status etc.
	LED	• ON Green Lights when power is ON      • P 1 Green Blinks synchronous with pump operation • AL1 Red Lights when AL1 is operating      • AL2 Red Lights when AL2 is operating
Input	Control current input	Signal input range: 4 - 20mA (0 - 20mA)
	Pulse input	Open collector input (DC12V 10mA or below) Low Active: 100Hz or below
	2-step level sensor	Open collector input (DC12V 10mA or below) Low Active: ⊙ Pre STOP (LCD display/AL output)      ⊙ STOP (Pump stop, LCD display/AL output) Note: Not usable for high active type sensor.
	Diaphragm rupture detector	Open collector input (DC12V 10mA or below) Low Active
Output	Flow counter	Open collector input (DC12V 10mA or below) Low Active
	Power for sensor	12V 20mA
	Transmission output	4 - 20mA Load resistance 500 ohms or below
	Alarm output	Mechanical contact (AC250V 5A) ⊙ AL1      ⊙ AL2 Set items: STOP/Pre STOP/Multiply/Flow checker/Diaphragm rupture detector

Power source: AC200 - 240V 50/60Hz • Ambient temperature: 0 - 50°C • Mass: 1.5 kg (controller)

## Model identification code

<b>MFC - L 10 W - 2</b>				
①	②	③	④	⑤
① Series code: MFC ② Applicable pump series: L series ③ Series sign: 10 ④ Controller type: Wall-mounted type ⑤ Applicable pump model 1: LKF-11-M 2: LKF-22-M, 32-M, 47-M, 57-M				

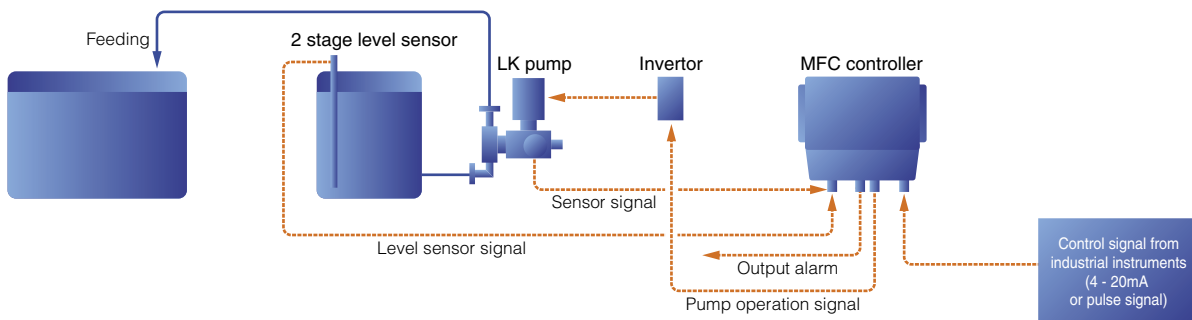
## Applicable pump model

Pump model	Stroke rate (spm)	Flow rate range (l/min)	Max. discharge pressure (MPa)	Motor
<b>LK-F11-M</b>	0 - 60	(0.0004) - 0.024	PVC: 1.0 SUS: 1.5	4P 0.4kW
<b>LK-F22-M</b>	0 - 120	(0.001) - 0.120	PVC: 1.0 SUS: 1.5	
<b>LK-F32-M</b>	0 - 120	(0.005) - 0.600	PVC: 1.0 SUS: 1.5	
<b>LK-F47-M</b>	0 - 120	(0.033) - 2.000	0.8	
<b>LK-F57-M</b>	0 - 120	(0.060) - 7.200	0.3	

Note 1. Figures in parentheses are target for the lowest flow rate.

## Application example

- Industrial wastewater treatment
- Municipal drinking water treatment
- Chemical dosing in chemical manufacture, paper mill and food manufacturing industries



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( )Country codes

**⚠ Caution for safety use:** Before use of pump, read instruction manual carefully to use the product correctly.  
Actual pumps may differ from the photos. Specifications and dimensions are subject to change without prior notice. For further details please contact us.