

# LM series


LCD Display type Multi panelmeter

- Use a wide viewing angle LCD and white backlight
- Short rear length of 68 mm (LM3) and 81 mm (LM6)
- IP66 Protection Structure (Front of Product)
- RMS and AVG Selection Measurement
- MODBUS Communication Support
- Maximum measurement input specification (500 V d.c., 500 V a.c., 5A d.c., 5A a.c.)



## Specification

Model	LM3/6-DV	LM3/6-DA	LM3/6-AV	LM3/6-AA
Size	• LM3 : 96(W) x 48(H) x 68(D) mm • LM6 : 72(W) x 36(H) x 81(D) mm			
Power	100 - 240 V a.c. 50/60 Hz			
Power Consumption	<ul style="list-style-type: none"> <li>•LM3-N: 6 VA or less</li> <li>•LM3-3R/3RC: 10 VA or less</li> <li>•LM3-3RT: 11 VA or less</li> <li>•LM3-3NC/3PC: 9 VA or less</li> <li>•LM3-3NT/3PT: 10 VA or less</li> <li>•LM6-N: 5 VA or less</li> <li>•LM6-3R: 7 VA or less</li> <li>•LM6-3N/3P: 5 VA or less</li> <li>•LM6-RC: 6 VA or less</li> <li>•LM6-RT: 7 VA or less</li> </ul>			
Input signal	DC voltage	DC current	AC voltage / frequency	AC current / frequency
Input range	500 V / 100 V 50 V / 10 V 5 V / 1 V 200 mV / 50 mV	5 A / 2 A 500 mA / 200 mA 50 mA / 4 - 20 mA 5 mA / 2 mA	500 V / 250 V 110 V / 50 V 20 V / 10 V 2 V / 1 V	5 A / 2 A 500 mA / 200 mA 50 mA / 20 mA
AC measurement method	AVG / RMS selective measurement			
Input sampling cycle	50 ms			
Input sampling method	OVER sampling method using continuous approximation A / D converter			
Maximum allowable input	F.S. of each input range 110 %			
Frequency measurement range	0.2 ~ 9999 Hz (Frequency measurement range depends on the decimal point position)			
Display	• Negative-LCD • 4 digit 2 rows • PV (White) • SV (Green)			
Character size	•LM3 : 17.6 x 10.6 mm •LM6 : 7.0 x 11.5 mm			
Maximum display	-9999 ~ 9999			
Display degree	<ul style="list-style-type: none"> <li>•[ 23 °C ± 5 °C ] - F.S. ± 0.1 % rdg ± 2 digit</li> <li>•[ 23 °C ± 5 °C, 5 A ] - F.S. ± 0.3 % rdg ± 3 digit</li> <li>•[ 50 °C ~ -10 °C ] - F.S. ± 0.5 % rdg ± 3 digit</li> </ul>		<ul style="list-style-type: none"> <li>•[ 23 °C ± 5 °C ] - F.S. ± 0.3 % rdg ± 3 digit</li> <li>•[ 23 °C ± 5 °C, frequency ] - F.S. ± 0.1 % rdg ± 2 digit</li> <li>•[ 50 °C ~ -10 °C ] - F.S. ± 0.5 % rdg ± 3 digit</li> </ul>	

Control output	<ul style="list-style-type: none"> <li>Contact output : 3 stage, SPST (1a), 250 V a.c. 5 A</li> <li>Solid state output: 3-stage, NPN or PNP open collector, 12 - 24 V d.c. 50mA or less</li> </ul>
Relay life time	<ul style="list-style-type: none"> <li>Electrical (about 100,000 times, 250 V a.c. 5 A)</li> <li>Mechanical (about 5 million times)</li> </ul>
Optional output	<ul style="list-style-type: none"> <li>Transmission output (4 - 20 mA) • RS - 485 output</li> </ul>
External input	<ul style="list-style-type: none"> <li>HOLD/ZERO Optional input • Non - voltage input • Short circuit impedance: 300 Ω or less</li> <li>Residual voltage: 1 V or less • Impedance when open: 100 kΩ or more</li> </ul>
Communication	<ul style="list-style-type: none"> <li>Communication protocol : Modbus - RTU • Communication method : RS - 485 (2 - wire half duplex)</li> <li>Communication speed : 2400 / 4800 / 9600 / 19200 / 38400 bps</li> </ul>
Insulation Resistance	100 MΩ or more (500 V d.c. Mega standard, between conductive terminal and case)
Withstand voltage	2000 V a.c. 60 Hz 1 minute (between conductive terminal and case)
Noise	± 2 kV(Between operation power terminals, Pulse width = 1 us, Square wave noise by noise simulator)
Vibration resistance	10 - 55 Hz, Single amplitude 0.5 mm, 3 - axis angular, 2 hours
Approval	
Protection structure	<ul style="list-style-type: none"> <li>IP66 (front) • Terminal block protection cover applied</li> </ul>
Ambient temperature and humidity	-10 ~ 50 °C, 35 ~ 85 % R.H.
Storage temperature	-20 ~ 65 °C

## Suffix Code

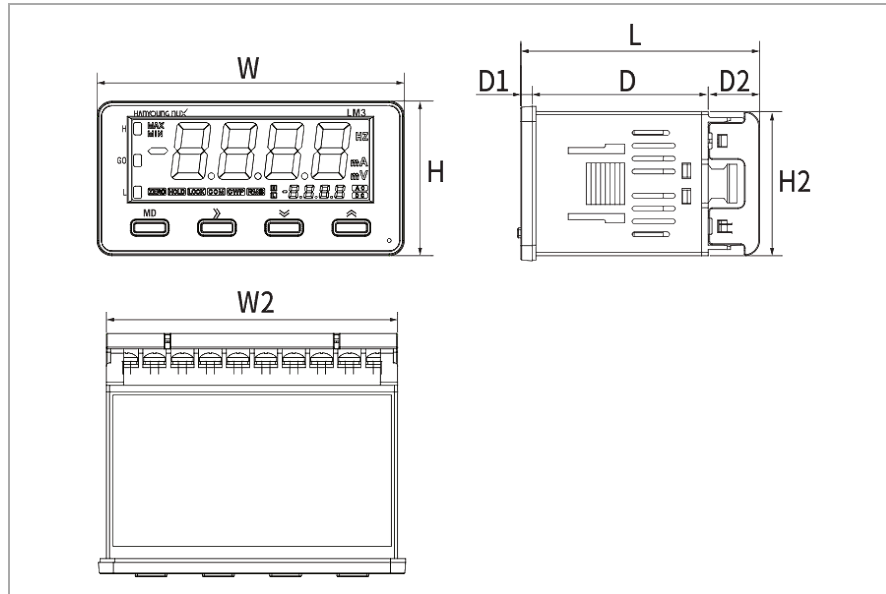
Model	Code						Description
LM	<input type="checkbox"/> -	<input type="checkbox"/>	<input type="checkbox"/> -	<input type="checkbox"/>	<input type="checkbox"/> -	<input type="checkbox"/>	LCD Multi Panelmeter
Appearance	3						96(W) X 48(H) mm
	6						72(W) X 36(H) mm
Displayable Digit		4					4 Digit indication
Input Specification			DV				DC voltage
			DA				DC current
			AV				AC voltage
			AA				AC current
Output specifications			N				Non only (Indication option output)
			R				1-stage contact output *LM6 only (For LM6-RC/RT, 1-stage contact output fixed.)
			3R				3 - stage contact output
			3N				3 - stage NPN open collector output
			3P				3 - stage PNP open collector output
Optional output					-		Non option output
					C		RS - 485 output (MODBUS - RTU)

	T	Transmission output (4 - 20 mA d.c.)
Power supply voltage	A	100 - 240 V a.c. 50/60 Hz

## Dimension & Panel cutout

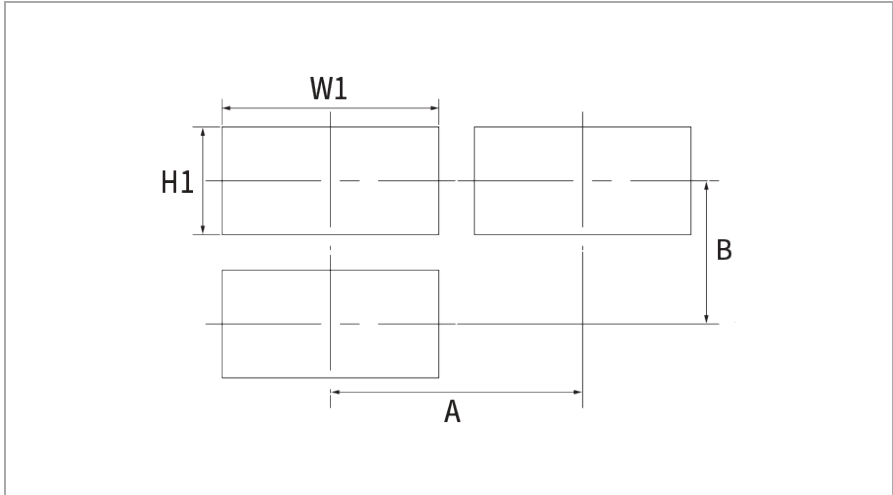
[Unit : mm]

### Dimension



Classification	Type	LM3	LM6
Product dimensions (Including protective cover.)	W	96.0	72.0
	H	48.0	36.0
	D	55	68
	D1	3.5	3.5
	D2	16.1	16.1
	L	74.6	87.6
	W2	91.0	66.0
	H2	44.8	30.5

### Panel cutout



Classification	Type	LM3	LM6
Panel cutout	W1	91.5	66.5
	H1	45.5	32.0
	A	121.5	96.5
	B	70.5	57.0