



406 406L 408-M Digital Indicator



Masibus' Digital Indicator Model 406, 406L and 408-M is a micro-controller based 4 digit process indicator, designed to accept multiple input types. Model 406, 406L have 0.56" display size and model 408-M has 0.8" display size which facilitates plant operator to read process data very conveniently from a far distance. Both models are equipped with field selectable inputs and field scalable ranges for flexible operations.

Built-in transmitter power supply eliminates the need of additional power supply to excite field transmitter, which makes this model well equipped.

It is a low cost high performance indicator which offers high accuracy of $\pm 0.25\%$ of full scale. This model can be used for Pt100, five different types of thermocouples and four types of linear inputs.

It is easy to operate and configuration is user friendly. CJC compensation for thermocouple input is done through software for higher accuracy.

The input is protected from reverse connection and over range inputs.

Features

- 4 digits, 0.56" or 0.8" LED display
- Universal input (TC, RTD, Volts, mA)
- Transmitter power supply
- Excellent longterm stability
- Easy configuration from front keys

Applications

- Current/voltage monitoring in drive panel
- RPM monitoring for VFD
- Temperature & process indication
- Plastics molding/extrusion temperature monitoring
- Heat treatment - furnace temperature monitoring
- Chillers
- Water heating boilers
- Oven control
- Pressure/ level/ flow monitoring

TECHNICAL SPECIFICATIONS

Input		Physical	
Input Type	Thermocouple (J, K, T, R, S),*** RTD (Pt100)*** Current, voltage	Dimensions (in mm)	96(W) x 48(H) x 85(D)
Display Range	Refer table-1	Depth Behind Panel (in mm)	75
Accuracy	±0.25% of full span + 1°C for T/C and RTD input ±0.1% of full span + 1 count for linear input	Panel Cutout (in mm)	92(W) x 46(H)
ADC Resolution	16 bits	Mounting	Panel mount
Display Resolution	0.1°C / 1 °C	Weight	260 g (Approx)
Sampling Rate	5 Samples/Sec	Enclosure Material	ABS plastic
CJC Error	+/-3°C	Enclosure Protection	IP20
Sensor Open	All inputs except 0-5V, 0-10V	Terminal Cable Size	2.5 mm2
Sensor Burnout Current	0.25uA	Standard Accessories	2 Nos. clamp
RTD Excitation Current	0.166mA (Approx)	Environmental	
NMRR	> 40 dB	Operating Temperature	0-55 °C
CMRR	> 120 dB	Storage Temperature	0-80 °C
Temp-Co	< 100ppm for input to display	Humidity	20-95% RH non-condensing
Input Impedance	> 1MΩ for voltage input 250Ω for current input	Table-1: Display Range	
Max. Voltage	20V DC	Table-1: Display Range	
Display & Keys			
Model	406, 406L	408-M	
PV Display	0.56", 4-digits, 7-Segment red LED	0.8", 4-digits, 7-Segment red LED	
Keys	Enter, increase, decrease		
Output***			
Transmitter Power Supply	24VDC (±10%) @26mA		
Power Supply			
Standard	85-265VAC/ 100-300VDC		
Optional	18 to 36VDC		
Power Consumption	<3 VA		
Isolation (Withstanding voltage)			
Between primary terminals* and secondary terminals**: At least 1500 V AC for 1 minute			
* Primary terminals indicate power terminals			
** Secondary terminals indicate analog input signal			

Input Type	Range	
Thermocouples	J	-200 to 1200°C
	K	-200 to 1372°C
	T	-200 to 400°C
	R	0 to 1768°C
	S	0 to 1768°C
RTD	Pt100	-199.9 to 850.0°C
	0/1-5V	
Linear	0/4 to 20mA (Ext. 250Ω)	-1999 to 9999
	0-10V	

Ordering Code

Model	Input Type	Auxiliary Power Supply
406	2 J	U1 85-265VAC / 100-300VDC
408-M	3 K	U2 18-36VDC
	4 T	
	6 R	
	7 S	
	9 Pt100	
	C 4-20mA	
	D 0-20mA	
	E 1-5V	
	F 0-5V	
	G 0-10V	

Model	Input Type	Auxiliary Power Supply
406L	C 4-20mA	U1 85-265VAC / 100-300VDC
	D 0-20mA	U2 18-36VDC
	E 1-5V	
	F 0-5V	
	G 0-10V	

Note: ***Not applicable for model 406L