



DIGITAL INDICATOR

SPECIFICATIONS

Input type	Range
PT100 (0.1°C)	-199.9 to 850.0 °C
PT100 (1°C)	-200 to 850°C
J	-199.9 to 1200°C
K	-199.9 to 1372°C
T	-199.9 to 400°C
R	0 to 1768°C
S	0 to 1768°C
*4-20mA /1-5VDC	-1999 to 9999 (Field Scalable)
*0-20mA /0-5VDC	
0-10VDC	

*Use external 250ohms, 0.1% for current Input
Table 1.1

Inputs

Input Type	Thermocouple, RTD (Pt100), Current, Voltage
Accuracy T /C and RTD : Linear:	±0.25% of FS ± 1 degree ±0.1% of FS ± 1 count
Resolution	ADC:16bits Display:0.1°C/1°C
Sampling Rate	5 Samples/Sec
CJC Error	±3.0 °C Max
Sensor open	All inputs except 0-5V,0-10V
Sensor Burnout current	0.25uA
RTD excitation current	0.166mA (Approx.)
Allowable wiring resistance for RTD	Maximum 15 ohms/wire (Conductorresistance between three wires should be equal)

NMRR	> 40 dB
CMRR	> 120 dB
TEMPCO	< 100ppm/°C
Input Impedance	> 1MΩ (Voltage Input) 250Ω (Current Input)
Max Voltage	20VDC

Display & Keys

Model	406	408-M
PV	4-Digit, 7-Segment, 0.56" High, Red	4-Digit, 7-Segment, 0.8" High, Red
Keys	Enter, Increase, Decrease	

Output Types

Loop Power Supply	24VDC (±10%) @26mA with Inbuilt Short Circuit Protection
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Power Supply

Standard	85-265VAC/ 100-300VDC
Optional	18-36VDC
Power consumption	<3VA

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 I/O signal.

Insulation resistance: 20MΩ or more at 500 V DC between power terminals and grounding terminal.

Physical

Dimension (WxHx D)mm	96 x 48 x 85
Panel Cutout mm	92 x 46
Depth Behind Panel mm	75
Weight Approx.	260g.
Enclosure Material	ABS Plastic
Enclosure Protection	IP 20
Terminal Cable Size	2.5mm ²
Standard Accessories	2 Nos. Clamp

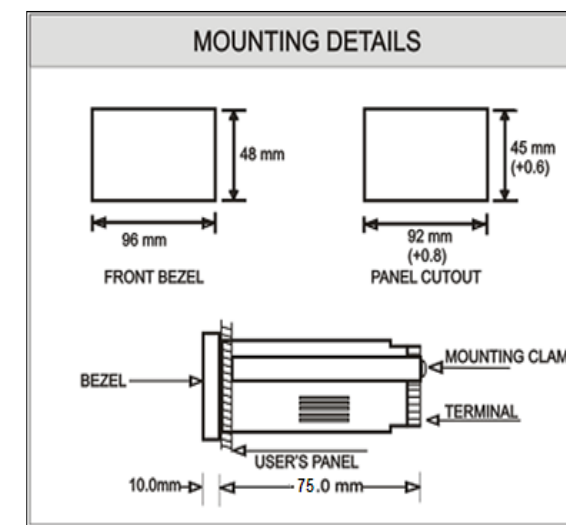
Environmental Conditions

Humidity	20% to 95% RH (Non-Condensing)
Ambient temperature	0 to 55°C
Storage Temperature	0 to 80°C

Advance Feature

- Input scalability for linear input

MOUNTING DETAILS

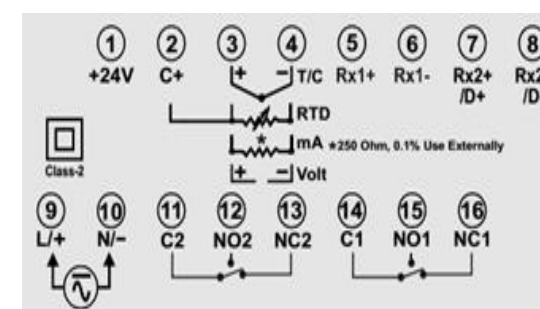


ORDERING CODE

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

TERMINAL CONNECTIONS

Terminal No.	Description
1 LPS+	24VDC Loop power supply Terminal 4 is ground Reference.
2 C+	For RTD Input Only (Three wire Compensation).
3 TC+ / V+	For Thermocouple, RTD & Linear Input
4 TC- / V- / LPS-	
9 L/+	Power Supply Input
10 N/-	



SAFETY/WARNING PRECAUTIONS

To ensure that the device can be operated safely and all functions can be used, please read these instructions carefully.

Installation and Start-up must be carried out by qualified personnel only. The relevant county-specific regulations must also be observed.

Before start-up it is particularly important to ensure:

- Terminal wiring: check that all cables are correctly connected according to the connection diagram
- All wiring must confirm to appropriate standards of good practice and local codes and regulations. Wiring must be suitable for voltage, current and temperature rating of the system.
- Unused control terminals should not be used as jumper points as they may be internally connected, which may cause damage to the unit.

FRONT PANEL DESCRIPTION

Name of Part	Symbol	Function
Increment Key		- Increment the Value of any Parameter in edit mode. - Shuffle to next parameter in the Sub Menu
Decrement Key		- Decrement the Value of any Parameter in edit mode. - Shuffle to previous parameter in the Sub Menu. - Shows ambient value for T/C Input in RUN mode.
Enter Key (Menu Key)		- It is used to enter in the sub menu. - It's used to enter in the edit mode. - It is also used to save the parameters to nonvolatile memory, when user setting a proper data by Increment and

		decrement key for parameter configuration.
PV(Process Value)Display	PV	• 4 digit 0.56 inch RED Display • 4 digit 0.8 inch RED Display • Display process value. • Display parameter name when user set parameter. • Display Parameter Value when in Edit mode. • Display error message when an error occurs.

PARAMETER SETTINGS

Parameter (PV display)		Setting Name & Description	Default Value
Symbol	Name		
INPT (<i>inPt</i>)	INPUT Type	Set PV Input Type tC J / tC t / tC P / tC r / tC 5 / rtd 1 / rtd .1 / 0-5u / 1-5u / 0-10 (ReferTable1 .1)	RTD.1
ZERO (<i>Zero</i>)	Zero	Automaticall y change to the Input Lower Range with changing of Input Type (ReferTable1 .1)Can be set to any value within the Input Range & less the SPAN Value.	-199.9

SPAN (<i>SPAN</i>)	Span	Automaticall y change to the Input Higher Range with changing of Input Type (ReferTable1 .1) Can be set to any value within the Input Range & greater the ZERO Value.	850.0
*INLO (<i>inLo</i>)	In Low	Can be set to any value within the Input Range & less the INHI Value.	1
*INHI (<i>inHi</i>)	In High	Can be set to any value within the Input Range & greater the INLO Value.	5
*DP (<i>dP</i>)	Decim-al Point	Set position of Decimal Point on Display. 0/ 0.0/ 0.00/ 0.000 0:0 1:0.0 2:0.00 3:0.000	0
BRHT (<i>brHt</i>)	Bright-ness	Adjust Brightness of the 7-segment Display. 10 to 100	50
OFST (<i>OFSt</i>)	Offset	Offset Value -1000 to 1000	0.0
PASS (<i>PASS</i>)	Passw-ord	Set Device Password 0 to 99	1

VERS (<i>uEr5</i>)	Version	Shows the Version of the Current Firmware	-
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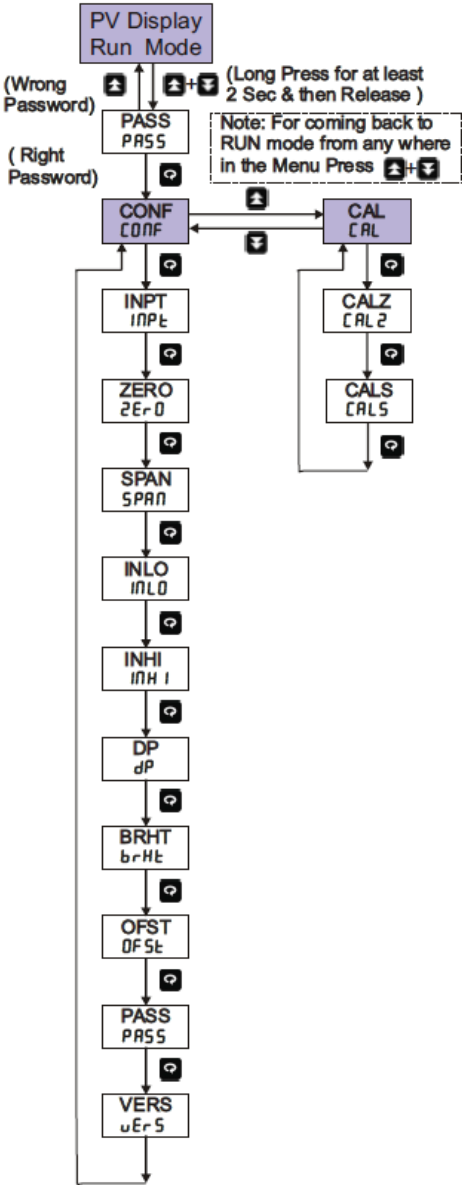
*parameter shows only if input type is linear.

CAL Mode

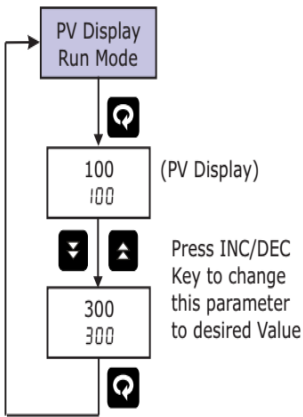
(PV display)		Setting Name & Description
Symbol	Name	
**AMB (<i>Amb</i>)	Ambient	Ambient Adjustment
ZERO (<i>Zero</i>)	Calibration Zero	Calibration Zero for PV Input(PV/SV Display:PV)
SPAN (<i>SPAN</i>)	Calibration Span	Calibration Span for PV Input(PV/SV Display :PV)

**parameter shows only if input type is TC.

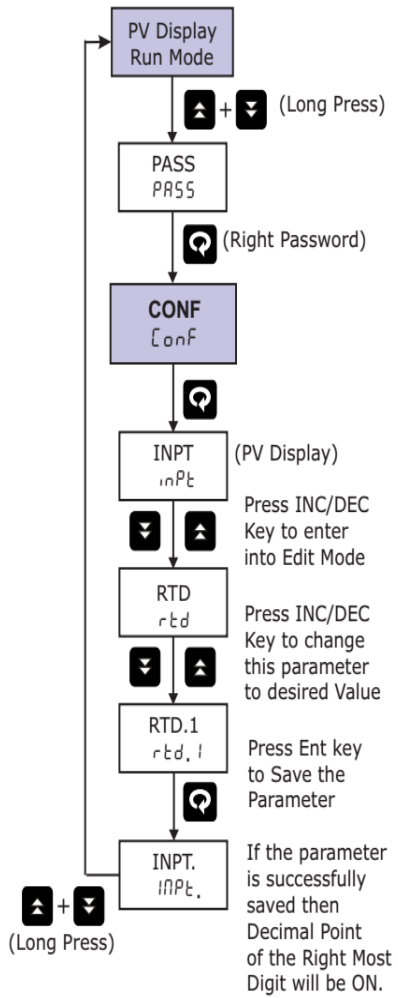
MENU LAYOUT



Examples:
How to change Set Point



How to change Input Type



For operation manual please visit www.masibus.com
Specifications are subject to change without notice due to Continuous improvements.
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