



LC5296-DC

Dual Channel Indicator cum Controller



LC-5296-DC Dual channel Indicator cum controller with enhanced hardware capabilities available in compact enclosure is accurate & provides reliable control of various process and monitoring applications.

LC-5296-DC is available with dual 0.56" Red 7 segment LED display for process value.

It accepts RTD/ mA/ Volt input and provides two relay outputs to perform various control and alarm functions. Intuitive configurations with four front tactile keys ensure easy programming.

Process value can also be retransmitted to remote devices as standard current/voltage signals. Data acquisition can be done on SCADA/PLC applications through RS485 for further process automation.

Designed using proven micro-controller technology, this controller has been validated to perform accurate and reliable performance in harsh field environments.

Features

- Input (RTD, Volts, mA)
- Fail-safe Design protecting the process in case of system malfunctioning
- Bright Red seven segment LED Display
- Display brightness control
- Status Indication LEDs
- Relay Output (optional)
- Retransmission output (optional)
- RS485 Modbus Communication (optional)
- Transmitter Power Supply
- Relay/ retransmission output mapping with respect to input no

Applications

- Condition Monitoring
- Heat treatment furnaces
- Water heating boilers
- Chillers
- Oven control

TECHNICAL SPECIFICATIONS

Input		Power Supply		
Input Type	RTD (Pt100), Current, Voltage	Standard	85-265VAC/ 125-300VDC	
Display Range	Refer Table-1	Optional	18-36VDC	
Accuracy	±0.25% of FS ±1 degree for RTD input ±0.1% of FS ±1 count for linear input	Power Consumption	<10VA	
ADC Resolution	16 bits	Isolation (Withstanding voltage) Between primary terminals* and secondary terminals**: At least 1500 V AC for 1 minute Between primary terminals* and grounding terminal: At least 1500 V AC for 1 minute Between grounding terminal and secondary terminals**: At least 1500 V AC for 1 minute Between secondary terminals**: At least 500 V AC for 1 minute * Primary terminals indicate power terminals and relay output terminals. ** Secondary terminals indicate analog I/O signal and Communication O/P. Insulation resistance: 50MΩ or more @ 500 VDC between power terminals and grounding terminal		
Display Resolution	0.1 / 1.0 °C			
Sampling Rate	2 Samples/Sec			
Sensor open	All inputs except 0-5V			
Sensor Burnout current	0.25uA			
RTD excitation current	0.166mA (Approx)			
NMRR	> 40dB	Physical		
CMRR	> 120dB	Dimensions (mm)	96(H) x 96(W) x 75(D)	
Temp-co	< 150ppm/°C	Front Bezel (mm)	96(H) x 96(W)	
Input Impedance	> 1MΩ	Panel Cutout (in mm)	92 x 92	
Max Voltage	20VDC	Depth behind Panel (in mm)	65	
Display and Keys		Weight	300g approx.	
Process Value 1 & 2	0.56", 7 segment, Red LED, 4 digits	Enclosure Material	Molded ABS	
Status LEDs	Relay & Communication	Enclosure Protection	IP20	
Keys	SET1, SET2, Increase, Decrease	Terminal Cable Size	2.5mm²	
Output		Environmental		
Control Output		Operating temperature	0-55 °C	
Relays	2 Nos.	Storage temperature	0-80 °C	
Type	Single Change over (C, NO, NC)	Humidity	20-95 %RH non-condensing	
Rating	5A @ 230VAC / 30VDC	Table 1: Display Range		
Retransmission Output (Optional)		Input	Input Type	Range
Current	0/4-20mA @500Ω Max	RTD	PT-100 (3 wire)	-200 to 850 °C, -199.0 to 850.0 °C
Voltage	0/1-5V, 0-10V @2KΩ Min	Linear	1-5V/0-5V/ 0-10V DC*	-1999 to 9999
Accuracy	0.25% of FS		0/4-20mA (Ext 250 Ω)	
Communication Output (Optional in lieu of 2nd Retransmission o/p)				
Interface	RS485			
Protocol	Modbus-RTU			
Baud Rate	9600, 19200, 38400			
Transmitter Supply*	24VDC (±10%) @60mA			

Ordering Code

Model	Input-1*		Input-2		Auxiliary Power Supply		Options				Relay o/p	
							Output-1		Output-2			
LC5296-DC	X		X		X		X		X		X	
	9	Pt-100	9	Pt-100	U1	85-265VAC / 125-300VDC	N	None	N	None	N	None
	C	4-20mA	C	4-20mA	U2	18-36VDC	1	4-20mA	1	4-20mA	Y	Yes
	D	0-20mA	D	0-20mA			2	0-20mA	2	0-20mA		
	E	1-5V	E	1-5V			3	1-5V	3	1-5V		
	F	0-5V	F	0-5V			4	0-5V	4	0-5V		
	G	0-10V#					5	0-10V	5	0-10V		
									6	RS485		

Accessories: Two numbers mounting clamps

*Transmitter Power Supply not possible for RTD input type

Possible for Channel-1 only.