

## Controller LIM 8100, 9100

### Technical description

#### Characteristic

- PID and Fuzzy Logic control
- PID control parameters auto-tuning
- ramping and heating function
- two control outputs, one alarm output
- internal timer, manual control
- sampling 5 times / s
- RS232 or RS485 interface
- service port for quick calibration
- panel or rail mounting (DIN-LIM 9100)

#### Output

- TC: J, K, T, E, B, R, S, N, L
- RTD: Pt100
- current: (4 ± 20) mA, (0 ± 20) mA
- voltage: (0 ± 5) V, (1 ± 5) V, (0 ± 10) V

#### Accuracy

- 2 °C: for thermocouple type: J, K, T, E, B, R, S, N, L
- 0,4 °C: for Pt100
- 0,05% of range: for voltage input

#### Output I, II

- relay: 2 A/240 V AC
- current: (4 ± 20) mA, (0 ± 20) mA
- voltage: (0 ± 5) V; (1 ± 5) V; (0 ± 10) V  
 SSR 5 V/30 mA, 14 V/40 mA
- triac: 1 A/ 240 V AC
- power supply: 20 V/25 mA; 12 V/40 mA; 5 V/80 mA

#### Power source

- (90 ± 250) V AC
- (11 ± 26) V AC/DC

#### Operating conditions

- temperature: (-10 ± 50) °C
- humidity: ≤90% RH without condensation

#### Dimension [mm]

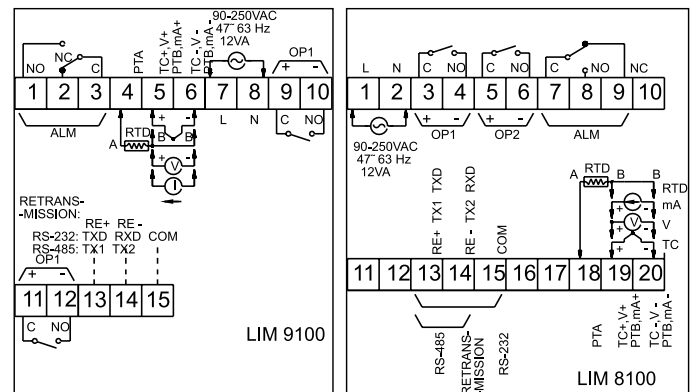
- 48x48x116; hole: 45x45 - LIM 9100
- 48x96x80; hole: 45x92 - LIM 8100

#### Additional functions

- alarm output, transmitter power source



Wiring diagram



TEMPERATURE CONTROLLERS

**Ordering code**

Controller	LIM 8100, 9100	-	...	-	...	-	...	-	...	-	...	-	...
Power source:													
(90 ÷ 250) V AC	4												
(11 ÷ 26) V AC/DC	5												
Multi-input:		1											
(0 ÷ 60) mV		2											
(0 ÷ 1) V		3											
(0 ÷ 5) V		4											
(1 ÷ 5) V		5											
(4 ÷ 20) mA		6											
(0 ÷ 20) mA		7											
(0 ÷ 10) V		8											
Output I: none								0					
relay: 2 A/240 V AC								1					
SSR: 5 V/30 mA								2					
current: (0 ÷ 20)/(4 ÷ 20) mA								3					
voltage: (0 ÷ 5)/(1 ÷ 5) V								4					
voltage: (0 ÷ 10) V								5					
TRIAK: 1 A/240 V AC								6					
SSR: 14 V/40 mA								C					
Output II: none									0				
relay: 2 A/240 V AC									1				
SSR: 5 V/30 mA									2				
current: (0 ÷ 20)/(4 ÷ 20) mA									3				
voltage: (0 ÷ 5)/(1 ÷ 5) V									4				
voltage: (0 ÷ 10) V									5				
TRIAK: 1 A/240 V AC									6				
transmitter power source: 20 V/25 mA									7				
transmitter power source: 12 V/40 mA									8				
transmitter power source: 5 V/80 mA									9				
SSR: 14 V/40 mA									C				
Alarm output: none										0			
relay: 2 A/240 V										1			
Interface: none											0		
RS485 interface											1		
RS232 interface											2		
(4 ÷ 20) mA											3		
(0 ÷ 5)/(1 ÷ 5) V											4		
(0 ÷ 10) V											5		
Additional options: none												0	
panel mounting, IP65												1	
DIN rail, IP50 (for LIM 9100)												2	
DIN rail, IP65 (for LIM 9100)												3	

TEMPERATURE CONTROLLERS

**Ordering example**

**Controller LIM 9100-4-1-1-0-0-0-0**