# Temperature/Process Controllers — continued

ON/OFF, P or PI Control - Infra-Red





Temperature Controller H = 33, W = 75, D = 64 Panel cut-out = 71 29

Infra-Red Remote Transmitter H = 18, W = 60, D = 160

Transforme H = 34, W = 58, D = 47

#### **Temperature Controllers**

- Digital LED display, sealed to IP65 and CE marked. Panel mountable.
- Programming functions include set-point limits, alarm status, offset and control
- Provides 9 standard modes of operation. Built-in buzzer (except 645-345)
- Can accept parameters via optional infra-red remote transmitter (except 645-345)
- 12V ac/dc supply voltage can be provided by optional transformer
- Applications include air-conditioning, refrigeration, food processing, driers and

## Infra-Red Remote Transmitter

- Once enabled, programmes several controllers rapidly. Requires 2 AA batteries.
- Each controller has a unique code. Parameters can only be changed when code is

NTC, PT100, J or K Thermocouple depending on model NTC = -50 to +90°C; PT100 = -99 to +600°C Innut ontions

Operating range .I = -99 to +880°C · K = -99 to +999°C

Resolution 0.1 or 1 unit, according to display value (autoranging)

Accuracy +0.5% of max, range 12 to 24V ac/dc ±10% Supply voltage Power consumption 3VA max.

Working temperature

0 to 50°C 645-345, 939-961, 939-973 1 SPDT relay Output configuration 645-357 and 645-369 ISPST relay

1 SPST relay + 1 SPDT relay 645-370 and 645-382

4 SPST relays 939-985, 939-997 and 940-008 940-010 1 SPNO 12V dc SSR drive

Relay rating 8A @ 250V ac max

Mftrs. List No.

IR32V0E000 = 645-345, IR32W10000 = 645-370, TRA12UN100 = 645-400 IR32V0L000 = 939-961, IR32Z10000 = 939-997, NTC015W = 940-021

IR32V1L000 = 645-357, IR32W20000 = 645-382, IR32V2L000 = 645-369, IRTRUE0000 = 645-394, TRA11UN100 = 645-412, IR32SOLBRO = 939-973, NTC015HP = 645-424 IR32C0LBR0 = 939-985 IR32Z20000 = 940-008, IR32D2L000 = 940-010.

PI C116X

Temperature Controllers					Price Each		
	·	Sensor	Order Code	1+	5+	10+	25+
	1 Relay	NTC (economic)	645-345				
	1 Relay	NTC (remote control)	939-961				
	1 Relay	PT100	645-357				
	1 Relay	J/K	645-369				
	2 Relay	PT100	645-370				
	2 Relay	J/K	645-382				
	4 Relay	PT100	939-997				
	4 Relay	J/K	940-008				
	1 Relay	NTC (static					
		refrigeration)	939-973				
	4 Relay	NTC (ventilated					
		refrigeration)	939-985				
	1 SSR Drive	J/K	940-010				
	Infra-Red Rei	mote Transmitter	645-394				
	Transformer						
	240V ac to 12V ac		645-400				
120V ac to 12V ac			645-412				
	Probe — 1.5	M Cable					
NTC (IP65, plastic)			645-424				
	NTC (IP67, st	eel)	940-021				

## ON/OFF. P or PI Control — Infra-Red **Humidity & Air Pressure (Process)**





H = 33, W = 75, D = 64, Panel cut-out = 71 29

#### Controllers

- Digital green LED display, sealed to IP65
- Programming functions include:- set-point limits, alarm, status, offset and control
- Built-in buzzer CE marked
- Can accept parameters via optional infra-red remote transmitter
- 12V ac/dc mains supply voltage can be provided by optional transformers
- Scaleable input ranges
- Applications include:- environment chambers, air-conditioning, driers, etc.

#### Infra-Red Remote Transmitter

- Once enabled, programmes several controllers rapidly. Requires 2 AA batteries
- Each controller has a unique code. Parameters can only be changed when code is identified

-0.5 to +1V dc or 0-20mA/4-20mA Input options

Operating range Resolution scaleable -99 to +999 0.1 or 1 unit, according to display value (autoranging)

Accuracy +0.5% of max, range 12V to 14V ac/dc ±10% Supply voltage

Power consumption 3VA may Working temperature 0 to 50°C

1SPST relay Output configuration 940-033

940-045 1SPST relay + 1SPDT relay

Relay rating 8A@ 250V ac max.

IR32V4I 000 = 940-033 IB32W30000 = 940-045 Mftrs List No

IRTRUE0000 = 645-394 TRA12UN100 = 645-400, TRA11UN100 = 645-412 ASDH100000/1 = 898-326

PI C163

Inputs	Order Code	1+	Price 5+	Each 10+	25+		
Pro 1	Oluci oduc		01	101	201		
Humidity Controller							
1 Relay -0.5 to +1V dc	940-033						
Air-Pressure (Process) Controller							
2 Relay 0-20mA/4-20mA							
Infra-Red Transmitter	645-394.						
Transformers							
240V ac to 12V ac/dc	645-400.						
120V ac to 12V ac/dc	645-412.						
Humidity Probe	898-326						

## PID Control - '3200 1/32 DIN'.





- Ultra compact, sealed front fascia (24x48mm) to NEMA 4X/IP66
- PID autotune, automatically matches PID settings to the application
- Dual output, 2A relay & SSR drive for alarms or heat/cool operation
- Bright LED 4 digit display configurable in °C, °F and engineering units
- Selectable inputs include 9 thermocouples, RTD/PT100 and linear process Zero and span adjustment for on site calibration
- Matching 1/16 DIN panel adaptors for retro-fit replacement of 1/16 DIN units Low supply voltage versions 12/24V ac/dc available
- Operator lockout, three levels for operational security

100-240Vac ±10%, 50-60Hz 3VA 12V or 24V ac/dc ±20%

Relay: 2A @ 250Vac (resistive) SSR Drive: 10mA @ 5Vdc Outputs User selectable between -200 to 1800°C

Temperature range Sensor types Thermocouple B,E,J,K,N,R,S,T and RTD/PT100

Linear Input -10°C to 50mV

Calibrated accuracy +/- 0.25% sensor maximum +/- 1°C 0 to 50°C

Ambient conditions

						PLC15
	Mftrs.	Order	Price Each			
	List No.	Code	1+	5+	10+	25+
Temperature C	ontrollers					
100-240Vac	320.000	.737-227				
12Vac/dc	320.040	.737-239				
24Vac/dc	320.050	.737-240				
Panel Adaptors						
1/16 DIN	301.610	.737-252				
Twin Mounting	301.620	.737-264				