

TEMPERATURE/PROCESS INDICATORS CONTROLLERS ——— PRIMA, TSC



- ❖ J, K thermocouples, Pt100, mV, 4~20 mA input
- ❖ Accuracy J, K 1%, Pt100 0.2%, mV, 4~20 mA 0.1%
- ❖ 4~20 mA retransmission output
- ❖ Relay logic : On/off or Time proportioning, Heat, Cool, Hi alarm, Lo alarm
- ❖ Transmitter excitation supply
- ❖ Modular, zero wiring high reliability design
- ❖ Hysteresis or reset control on front panel

MODEL	DESCRIPTION	SIZE (mm)	TEMPERATURE SETTING
PRIMA 480	TEMPERATURE/PROCESS INDICATOR	48x48x100	NA
PRIMA 720	TEMPERATURE/PROCESS INDICATOR	72x72x113	NA
PRIMA 0SP	TEMPERATURE/PROCESS INDICATOR	96x96x150	NA
PRIMA 481	1 SETPOINT TEMPERATURE/PROCESS CONTROLLER	48x48x100	Multiturn trimpot/tactile switch
PRIMA 721	1 SETPOINT TEMPERATURE/PROCESS CONTROLLER	72x72x113	Multiturn trimpot/membrane keyswitch
TSC 721	1 SETPOINT TEMPERATURE/PROCESS CONTROLLER	72x72x113	3 or 4 digit pushwheel switches
PRIMA 1SP	1 SETPOINT TEMPERATURE/PROCESS CONTROLLER	96x96x150	Coarse/Fine potentiometers/membrane keyswitches
TSC 1SP	1 SETPOINT TEMPERATURE/PROCESS CONTROLLER	96x96x150	3 or 4 digit pushwheel switches
PRIMA 2SP	2 SETPOINT TEMPERATURE/PROCESS CONTROLLER	96x96x150	10-turn potentiometers/membrane keyswitches
TSC 2SP	2 SETPOINT TEMPERATURE/PROCESS CONTROLLER	96x96x150	3 or 4 digit pushwheel switches

SPECIFICATIONS

Input	See Table 1	Proportional band	± 3 °C
Range	See Table 1	Proportional cycle time	12 seconds at centre of band
Resolution	See Table 1	Relay outputs	See Table 2
Accuracy	See Table 1	Current output ⁽¹⁾	Optional (See Table 2)
Display	3 ½ digit, 0.56" (14.2 mm), 7 segment red LED	Transmitter excitation ⁽²⁾	Optional (See Table 2)
Underrange/Overrange indication	Display shows '1'	Supply voltage	230 V AC ±10%, 50 Hz (std) 110 V AC, 24 V AC, 24 V DC ⁽³⁾
No. of setpoints	See Table 2	Operating ambient temperature	0 to 50 °C
Control action	On/off or Time-Proportioning, Heat, Cool, Hi Alarm, Lo Alarm for each setpoint	Relative humidity	Below 90%, non condensing
Additional adjustment for each setpoint	ONOFF : Hysteresis, 0.5 to 5 °C by trimpot Time proportioning : Offset (Reset), ± 3 °C, by trimpot	Mounting panel cutout (in mm)	48x48x100 : 44x44 72x72x113 : 68x68 96x96x150 : 92x92

TABLE 1 : INPUT, RANGE, RESOLUTION, ACCURACY

SENSOR / INPUT	STANDARD CALIBRATION POINTS (°C)		USEFUL RANGE (°C)		ACCURACY BETWEEN CALIBRATION POINTS	RESOLUTION (°C)
	0	400	-50	500		
Iron / Constantan (J)	0	400	-50	500	± 1%	1
Chromel / Alumel (K)	0	1000	-50	1200	± 0.7%	1
Pt100, 3-wire	-100	500	-100	600	± 0.2%	1
Pt100, 3-wire	-50.0	100.0	-50.0	199.9	± 0.2%	0.1 ⁽⁴⁾
Linear input (4~20 mA, 0~1 V DC, etc) ⁽⁵⁾	0	1999	-1999	1999	± 0.1%	0.1 or 1

TABLE 2 : OUTPUT DETAILS

	PRIMA 480	PRIMA 720	PRIMA 0SP	PRIMA 481	PRIMA 721	TSC 721	PRIMA 1SP	TSC 1SP	PRIMA 2SP	TSC 2SP
No. of setpoints	0	0	0	1	1	1	1	1	2	2
Relay contacts	-	-	-	NO-C-NC	NO-C-NC	NO-C-NC	NO-C-NC	NO-C-NC	2 x NO-C-NC	2 x NO-C-NC
Transmitter supply ⁽²⁾	NO	YES	YES	NO	YES	YES	YES	YES	YES	YES
Current output ⁽¹⁾	NO	YES	YES	NO	YES	YES	YES	YES	YES	YES

Note 1 : In pushwheel temperature setting instruments, -ve temperature setting is not possible

Note 2 : (1), (2), (3), (4), (5) & -ve temperature settings are chargeable options.

❖ See overleaf for product pictures

TEMPERATURE/PROCESS INDICATORS CONTROLLERS ——— PRIMA, TSC

PRIMA 480 48x48x100



TEMPERATURE/PROCESS INDICATOR

PRIMA 720 72x72x113



TEMPERATURE/PROCESS INDICATOR

PRIMA 0SP 96x96x150



TEMPERATURE/PROCESS INDICATOR

PRIMA 481 48x48x100



1 SETPOINT TEMPERATURE/PROCESS CONTROLLER

PRIMA 721 72x72x113



1 SETPOINT TEMPERATURE/PROCESS CONTROLLER

TSC 721 72x72x113
TSC 1SP 96x96x150



1 SETPOINT TEMPERATURE/PROCESS CONTROLLER

PRIMA 1SP 96x96x150



1 SETPOINT TEMPERATURE/PROCESS CONTROLLER

PRIMA 2SP 96x96x150



2 SETPOINT TEMPERATURE/PROCESS CONTROLLER

TSC 2SP 96x96x150



2 SETPOINT TEMPERATURE/PROCESS CONTROLLER



Ex VERSIONS

- ❖ Temperature Controllers, Digital
- ❖ Temperature Controllers, Programmable
- ❖ Temperature Controllers, Blind
- ❖ PID Controllers, Autotune
- ❖ Temperature Indicators
- ❖ Handheld Thermometers
- ❖ Scanners
- ❖ Transmitters, 2-Wire
- ❖ Transmitters/Isolators, 3-Port
- ❖ Loop Powered Isolators
- ❖ Loop Powered Indicators
- ❖ Frequency-To-Voltage/Current Converter
- ❖ Calibrators

- ❖ Flameproof Products, Wall Mounting
- ❖ Flameproof Products, Pipe Mounting
- ❖ Counters with Non-Volatile Memory
- ❖ Timers, Time Totalisers, with Non-Volatile Memory
- ❖ Other Timers, Counters & RPM Indicators
- ❖ Thermocouples
- ❖ RTD Sensors
- ❖ Proximity Switches
- ❖ Thermocouple Connectors
- ❖ Full range of RS485/MODBUS instruments
- ❖ Full range of RH products
- ❖ Flow Rate Indicator / Totaliser

OTHER PRODUCTS



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