

Temperature / PID / Process

Setting new standards in looks and performance



- Temperature / PID Controllers
- Process Indicators



MODEL (Bezel Size)	PID500 (48 x 48)	PID110 (96 x 48)	PID330 (96 x 96)	TC518 (48 x 48)	PID528 (48 x 48)
Description	Advanced PID Controller, Covers most applications.			Economical PID	
Features	Universal input Auto tune Selectable lower display Single point ramp-soak Heat-cool PID Soft start Auto / manual mode			Auto tune Input selectable (6 types) Control modes, PID or ON/OFF	Auto tune Input selectable (6 types) Control mode: ON / OFF, P, PI, PD, PID
Display	4 digit Upper display: Process value. 4 digit Lower display: Selectable.			4 digit Upper display: PV 4 digit Lower display: SV	
Inputs	Thermocouple: J, K, T, R, S, C, E, B, N, L, U, W, Platinel II RTD: Pt100 Signal Inputs (DC): -5 to 56 mV, 0 to 10 V, 0 to 20 mA			Thermocouples: (J, K, T, R, S.) RTD: Pt100	
Resolution	TC / RTD : 1 / 0.1°; Analog input :1 / 0.1 / 0.01 / 0.001.			1°/0.1° for TC/RTD	
Indication Accuracy	For TC inputs: 0.25% of F.S. ±1°; For R & S inputs: 0.5% of F.S. ±2° (20 min of warm up time) For RTD inputs: 0.1% of F.S. ±1°; Cold junction accuracy ± 5°C ; Signal input: ±0.5%, ± 1 digit (applicable for PID500, 110, 330 only)				
Temperature Unit	°C / °F (selectable)				°C(fixed)
Sampling Time	200 ms			250 ms	
Control Action	Autotune PID or ON / OFF, P, PI, PD, PID			Autotune PID or ON / OFF	Autotune PID or ON / OFF, P, PI, PD, PID
Main Output	Relay : 5 A@ 230V AC or 30V DC, or SSR drive voltage : 18V DC, @ 20 mA or Current : 0/4 to 20 mA DC (max load 500E) or Voltage: 0 to 5/10V DC (min load 10K)			Relay : 5 A@ 230V AC or 30V DC, or SSR drive voltage : 18V DC, @ 20 mA	
Auxiliary Output	2 (second optional) (Relay or SSR drive voltage) Mode: Set point or Alarm mode. Alarm operation: Absolute / Deviation / High / Low / Band, Sensor break.			---	Relay : 5A@250V AC or 30V DC
Retransmission Output	0/4-20 mA or 0 - 5 V, or 0 - 10V DC (Main output is user selectable as control or retransmission output for analog DC output models)			NONE	
Optional Features	Extra alarm output Rly3, Heater current monitor and Break Alarm, Remote Set point Input (0 to 20 mA, 0 to 10V), Motorized valve Control, RS-485 (MODBUS PC software available), 24V AC/DC supply voltage models.	Extra alarm output (relay3), RS-485 (MODBUS PC software available), 24V AC/DC supply voltage models.		NONE	
Power Supply	85 to 270V AC/DC (AC: 50/60 Hz) ; Optional 24V AC/DC models available on request			85 to 270V AC/DC	
Temperature	Operating: 0 to 50°C. ; Storage: -20 to 75°C.				
Humidity	95% RH.				
Housing	Flame retardant engineering plastic. (IP65 on front)				
Certification	CE c RU US	CE c RU US	CE c RU US	CE c RU US	CE c RU US
Panel Cutout Size	46 x 46	92 x 46	92 x 92	46 x 46	46 x 46

Refer ordering information for part number details



MODEL (Bezel Size)	TC544A (48 x 48) TC244AX/DTC204A-2 (72 x 72) TC344AX/DTC324A-2 (96 x 96)	TC533AX (48 x 48)	TC513AX (48 x 48) TC203AX (72 x 72) TC303AX (96 x 96)	TC52 (48 x 48)
Display	7 segment LED, dual display		7 segment LED, single display	Dial Settings
Digits	4 + 4 digits For DTC204/324A-2 : 4 digits	3 + 3 digits	3 digits	—
LED Indications	Relay ON, Tune, Soak Time	Control output ON		Relay ON, Power ON
Input Specifications				
Types	Thermocouple (J,K,T,R,S) / RTD (PT100)			Thermocouple (J,K)
Sampling time	250 ms			—
Resolution	0.1/1° for TC/RTD inputs (fixed 1° for R & S type TC input)	Fixed 1° resolution		—
Temperature Unit	°C / °F selectable			—
Indication Accuracy	For J, K & T TC inputs: 0.25% of F.S ±1°, For R & S inputs: 0.5% of F.S. ±2° (20 min of warm up time for TC inputs), For RTD input: 0.1% of F.S. ±1°			—
Output Specifications				
Control Output	1			—
Relay	5A@250V AC / 30V DC, resistive For DTC204/324A-2 : 10A@230V AC/30V DC	10 A@230V AC or 30V DC, resistive		5A@230V AC
SSR	12V DC, 50mA			—
Auxiliary Output	1	—		—
Relay	5A@230V AC or 30V DC, resistive	—		—
SSR (Not for DTC204/324A-2)	12V DC, 50mA	—		—
Functional Specifications				
Control Method	PID or ON/OFF			P, ON/OFF
Hysteresis	0.1 to 99.9°			—
Proportional Band	1 to 400°			—
Integral Time	0 to 9999 sec	0.0 to 99.9 min		—
Derivative Time	0 to 9999 sec	0 to 200 sec		—
Cycle Time	0.1 to 99.9 sec			—
Manual Reset Value	-19.9 to 19.9°			—
Dwell (Soak) timer (Not for DTC204/324A-2)	OFF, 1 to 9999 min	—		—
Heat - Cool PID				
Control Method	PID (with auto-tuning)			—
Proportional Band-Cool	0.0 to 400.0°			—
Cycle Time-Cool	0.1 to 99.9 sec			—
Dead Band	SPLL to SPHL (Programmable)			—
Alarm	—			—
Alarm Modes	Deviation, Absolute			—
Hysteresis	0.1 to 99.9°			—
Supply Voltage (AC: 50 or 60 Hz)	85 to 270V AC/DC, 24V AC/DC (Not for DTC204/324A-2)	85 to 270V AC/DC	85 to 270V AC/DC, 24V AC/DC (only for TC513AX)	230V AC
Temperature	Operating: 0 to 50° Storage: -20 to 75°			
Humidity (non-condensing)	95% RH			
Certification	CE (Not for DTC204/324A-2)	CE	CE	—
Panel Cutout Size	TC544A : 46 x 46 TC244AX/DTC204A-2: 69 x 69 TC344AX/DTC324A-2: 92 x 92	46 x 46	TC513AX: 46 x 46 TC203AX: 69 x 69 TC303AX: 92 x 92	46 x 46

Refer ordering information for part number details

Cooling Controller



CH403

MODEL (Bezel Size)	CH403 (36 x 72)		
Display	3 digit	Display Offset	-19.9 to 20.0°C/°F
Control Modes	ON / OFF (Hysteresis - 0.1 to 9.9°)	Restart Time Delay	Adjustable from 00 to 99 Min
Sensor Range	NTC type sensor	Relay Action	Heat & Cool Mode
Resolution	1 / 0.1°	Defrost Time	Programmable from 00 to 99 Min
Accuracy	±1% of F.S.	Defrost Frequency	Programmable from 00 to 99 (Hr/Min/Sec)
Setpoint	1	Power Supply (AC: 50/60 Hz)	85 to 270V AC/DC, 24V AC/DC optional
Output	Main Output : Relay, Alarm Output : Relay / SSR	Certification	CE c RU US
Hysteresis	0.1 to 9.9°C/°F	Panel Cutout Size	29 x 71

Refer ordering information for part number details

Profile Controller



PR502

MODEL (Bezel Size)	PR502 (48 x 48)
Display	4 digit Upper display: Process value, 4 digit Lower display: Selectable.
Inputs	Thermocouple: J, K, T, R, S, C, E, B, N, L, U, W, Platinel II RTD: Pt100 Signal Inputs (DC): -5 to 56 mV, 0 to 10 V, 0 to 20 mA
Resolution	TC / RTD : 1 / 0.1°; Analog input : 1 / 0.1 / 0.01 / 0.001.
Accuracy	For TC inputs: 0.25% of F.S. ±1°; For R & S inputs: 0.5% of F.S. ±2° (20 min of warm up time) For RTD inputs: 0.1% of F.S. ±1°; Cold junction accuracy ± 5°C ; Signal input: ±0.5%, ± 1 digit
Control Action	Autotune PID or ON / OFF, P, PI, PD, PID
Main output	Relay (5A@230V AC/30V DC) / SSR (18V DC, 20mA) / Current : 0/4 to 20 mA DC / Voltage: 0 to 5/10V DC
Auxiliary output	Relay (5A@230V AC/30V DC) / SSR (12V DC, 20mA) (Mode: Set point or Alarm mode)
Profile Parameters	No. of Profiles : 10 (16 Steps each) Ramp/Soak Time Range : 0.01 to 99.59 Hrs : Min Target Temperature Range : SPLL to SPHL Other Profile Parameters : Link profiles, Programmable repeat cycle, Power down resume / Reset option, Deviation hold, Alarm at each step with settable alarm duration
Optional Features	RS-485 (MODBUS), Retransmission analog output
Power Supply (AC: 50/60 Hz)	85 to 270V AC/DC, 24V AC/DC optional
Certification	CE c RU US
Panel Cutout Size	46 x 46

Refer ordering information for part number details

Process Indicators



PIC100N



PIC152N



PIC101A-T-230 /
PIC101A-VI-230

MODEL (Bezel Size)	PIC100N (48 X 96)	PIC152N (48 X 96)	PIC101N (48 X 96)	PIC101A-T-230 (48 X 96)	PIC101A-VI-230 (48 X 96)
Display	4 digits				
Sensor Range	Thermocouple: J, K, T, R, S, C, E, B, N, L, U, W, Platinel II RTD: Pt100, Pt1000 Signal Inputs (DC): -5 to 56mV, 0 to 100mV, 0 to 10V, 0/4 to 20mA			Thermocouple: J, K, T, R, S RTD: Pt100	Signal Inputs (DC): 0 to 10V, 0/4 to 20mA
Resolution	TC / RTD : 1 / 0.1°; Analog input : 1 / 0.1 / 0.01 / 0.001.			1 / 0.1° (Fix 1° resolution for R & S type TC)	Decimal Point position selectable : 1/0.1/0.01/0.001
Accuracy	For TC inputs: 0.25% of F.S. ±1°; For R & S inputs: 0.5% of F.S. ±2° (20 min of warm up time) For RTD inputs: 0.1% of F.S. ±1°; Cold junction accuracy ± 5°C ; Signal input: ±0.5%, ± 1 digit			TC : 0.25% of F.S. ±1°; R & S TC: 0.5% of F.S. ±2° (20 min of warm up time) RTD : 0.1% of F.S. ±1°	Signal input: ±0.5% of full scale, ± 1 digit
Output	4 alarms, Programmable delay timer	2 alarms	---		
optional features	Alarm modes : High, Low, Band, Fail output & fault diagnosis. Hysteresis, Annunciator : Programmable, Reset action : Automatic or latched			---	
Communication	Retransmission output: 0/4 to 20mA DC, 0 to 5V DC, 0 to 10V DC	---			
Communication	RS485 (MODBUS)	---			
Sensor Supply	24V DC output to power the sensor, 30mA			---	
Power Supply (AC: 50/60 Hz)	85 to 270V AC/DC, 24V DC optional			230V AC, ±20%	
Cretification	CE c RU US	CE c RU US	CE c RU US	---	---
Panel Cutout Size	46 x 92	46 x 92	46 x 92	46 x 92	46 x 92

Refer ordering information for part number details

Ordering Information

TC544/TC244/TC344/DTC204/DTC324						
Part No.	Output 1		Output 2		Supply Voltage	
	Relay	SSR (12V DC)	Relay	SSR (12V DC)	85-270V AC/DC	24V AC/DC
TC544A	■	■	■		■	
TC544A-1	■	■		■	■	
TC544A-24V	■	■	■			■
TC544A-1-24V	■	■		■		■
TC244AX	■	■	■		■	
TC244AX-24V	■	■	■			■
TC344AX	■	■	■		■	
TC344AX-24V	■	■	■			■
DTC204A-2	■	■	■		■	
DTC324A-2	■	■	■		■	

TC513/TC203/TC303/TC533				
Part No.	Output 1		Supply Voltage	
	Relay	SSR (12V DC)	85-270V AC/DC	24V AC/DC
TC513AX	■	■	■	
TC513AX-24V	■	■		■
TC203AX	■	■	■	
TC303AX	■	■	■	
TC533AX	■	■	■	

PID528				
Part No.	Output 1		Output 2	Supply Voltage
	Relay	SSR (18V DC)	Relay	85-270V AC/DC
PID528-1	■		■	■
PID528-2		■	■	■

PIC1000N/PIC101N/PIC101A				
Part No.	Retransmission	Communication	Supply Voltage	
			85-270V AC/DC	24V AC/DC
PIC1000N-A			■	
PIC1000N-A-24V				■
PIC1000N-D-2	4-20mA		■	
PIC1000N-D-2-24V	4-20mA			■
PIC1000N-E-1	0-20mA	■	■	
PIC1000N-E-1-24V	0-20mA	■		■
PIC1000N-E-2	4-20mA	■	■	
PIC1000N-E-2-24V	4-20mA	■		■
PIC1000N-E-3	0-5V	■	■	
PIC1000N-E-3-24V	0-5V	■		■
PIC1000N-E-4	0-10V	■	■	
PIC1000N-E-4-24V	0-10V	■		■
PIC101N			■	
PIC101N-24V				■

PIC152N			
Part No.	Retransmission	Supply Voltage	
		85-270V AC/DC	24V AC/DC
PIC152N-A		■	
PIC152N-A-24V			■
PIC152N-B-1	0-20mA	■	
PIC152N-B-1-24V	0-20mA		■
PIC152N-B-2	4-20mA	■	
PIC152N-B-2-24V	4-20mA		■
PIC152N-B-3	0-5V	■	
PIC152N-B-3-24V	0-5V		■
PIC152N-B-4	0-10V	■	
PIC152N-B-4-24V	0-10V		■

PIC101A-T-230 & PIC101A-VI-230	
Part No.	Supply Voltage (230V AC)
PIC101A-T-230	■
PIC101A-VI-230	■

CH403/TC518/TC52					
PRODUCT	ORDER CODE	DESCRIPTION	Supply Voltage		
			230V AC	85-270V AC/DC	24V AC/DC
CH403	CH403-1	Main O/P : 10A@230V AC Relay, Alarm Output : 12V DC SSR, 10mA	■		
	CH403-1-24V			■	
	CH403-2	Main O/P : 20 A@230V AC Relay, Alarm O/P : None	■		
	CH403-2-24V			■	
	CH403-3	Main O/P : 10A@230V AC Relay, Alarm Output : 5A@230V AC Relay	■		
CH403-3-24V			■		
TC518	TC518	Relay : 5 A@ 230V AC or 30V DC		■	
	TC518-SSR	SSR : 18V DC @ 20 mA		■	
TC52	TC52-400-J-230	TC52 (Product) - 0 - 400°C - J Type Thermocouple - 230V AC supply	■		
	TC52-400-K-230	TC52 (Product) - 0 - 400°C - K Type Thermocouple - 230V AC supply	■		



For CE Certified & UL approved products, Please refer datasheet of respective product available @ www.selec.com

Ordering Information

PID500 / PID110 / PID330

PRODUCT NAME	OUTPUT 1	OUTPUT 2	OUTPUT 3			SUPPLY VOLTAGE
			RELAY / SSR	COMMUNICATION (RS485)	ADDITIONAL INPUT	
PID500/110/330-0-0-00	RELAY	RELAY	NA			85-270V AC/DC
PID500/110/330-0-0-00-24V	RELAY	RELAY	NA			24V AC/DC
PID500/110/330-0-0-0-01	RELAY	RELAY	RELAY			85-270V AC/DC
PID500/110/330-0-0-0-04	RELAY	RELAY	RELAY	YES		85-270V AC/DC
PID500/110/330-0-0-0-04-24V	RELAY	RELAY	RELAY	YES		24V AC/DC
PID500/110/330-0-1-0-05	RELAY	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-0-0-07	RELAY	RELAY	RELAY		CT input	85-270V AC/DC
PID500-0-1-09	RELAY	12VDC SSR	NA	YES	CT input	85-270V AC/DC
PID500-0-0-11-P	RELAY	RELAY	NA	YES	Potentiometric f/b input	85-270V AC/DC
PID500-0-0-11-C	RELAY	RELAY	NA	YES	4-20 mA f/b input	85-270V AC/DC
PID500-0-0-11-V	RELAY	RELAY	NA	YES	0-10 V f/b input	85-270V AC/DC
PID500-0-0-13-C	RELAY	RELAY	NA	YES	4-20 mA input	85-270V AC/DC
PID500-0-0-13-V	RELAY	RELAY	NA	YES	0-10 V input	85-270V AC/DC
PID500/110/330-1-0-0-00	18VDC SSR	RELAY	NA			85-270V AC/DC
PID500/110/330-1-0-00-24V	18VDC SSR	RELAY	NA			24V AC/DC
PID500/110/330-1-0-0-01	18VDC SSR	RELAY	RELAY			85-270V AC/DC
PID500/110/330-1-1-0-01	18VDC SSR	12VDC SSR	RELAY			85-270V AC/DC
PID500/110/330-1-0-0-04	18VDC SSR	RELAY	RELAY	YES		85-270V AC/DC
PID500/110/330-1-0-04-24V	18VDC SSR	RELAY	RELAY	YES		24V AC/DC
PID500/110/330-1-1-0-05	18VDC SSR	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-1-0-07	18VDC SSR	RELAY	RELAY		CT input	85-270V AC/DC
PID500-1-1-09	18VDC SSR	12VDC SSR	NA	YES	CT input	85-270V AC/DC
PID500/110/330-2-0-0-00	4-20mA	RELAY	NA			85-270V AC/DC
PID500/110/330-2-0-00-24V	4-20mA	RELAY	NA			24V AC/DC
PID500/110/330-2-0-0-01	4-20mA	RELAY	RELAY			85-270V AC/DC
PID500/110/330-2-0-0-04	4-20mA	RELAY	RELAY	YES		85-270V AC/DC
PID500/110/330-2-0-04-24V	4-20mA	RELAY	RELAY	YES		24V AC/DC
PID500/110/330-2-1-0-05	4-20mA	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-2-0-13-C	4-20mA	RELAY	NA	YES	4-20 mA input	85-270V AC/DC
PID500-2-0-13-V	4-20mA	RELAY	NA	YES	0-10 V input	85-270V AC/DC
PID500/110/330-3-0-0-00	0 - 10V	RELAY	NA			85-270V AC/DC
PID500/110/330-3-0-00-24V	0 - 10V	RELAY	NA			24V AC/DC
PID500/110/330-3-0-0-01	0 - 10V	RELAY	RELAY			85-270V AC/DC
PID500/110/330-3-0-0-04	0 - 10V	RELAY	RELAY	YES		85-270V AC/DC
PID500/110/330-3-0-04-24V	0 - 10V	RELAY	RELAY	YES		24V AC/DC
PID500/110/330-3-1-0-05	0 - 10V	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-3-0-13-C	0 - 10V	RELAY	NA	YES	4-20 mA input	85-270V AC/DC
PID500-3-0-13-V	0 - 10V	RELAY	NA	YES	0-10 V input	85-270V AC/DC
PID500/110/330-5-0-0-04	0 - 20mA	RELAY	RELAY	YES		85-270V AC/DC
PID500/110/330-5-1-0-05	0 - 20mA	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500/110/330-4-0-0-04	0 - 5V	RELAY	RELAY	YES		85-270V AC/DC
PID500/110/330-4-1-0-05	0 - 5V	12VDC SSR	12VDC SSR	YES		85-270V AC/DC



CE certified & UL approved products are available only against order. Please add suffix - CU in front of above mentioned part numbers while ordering. e.g. PID500-0-0-00-CU

PR502

PRODUCT NAME	OUTPUT 1	OUTPUT 2	COMMUNICATION (RS485)	SUPPLY VOLTAGE
PR502-0-0-0	RELAY	RELAY		85-270V AC/DC
PR502-0-0-1	RELAY	RELAY	Yes	85-270V AC/DC
PR502-0-1-1	RELAY	12VDC SSR	Yes	85-270V AC/DC
PR502-0-1-0	RELAY	12VDC SSR		85-270V AC/DC
PR502-1-0-1	18VDC SSR	RELAY	Yes	85-270V AC/DC
PR502-1-0-0	18VDC SSR	RELAY		85-270V AC/DC
PR502-1-1-0	18VDC SSR	12VDC SSR		85-270V AC/DC
PR502-1-1-1	18VDC SSR	12VDC SSR	Yes	85-270V AC/DC
PR502-2-0-0	4-20mA	RELAY		85-270V AC/DC
PR502-2-0-1	4-20mA	RELAY	Yes	85-270V AC/DC
PR502-3-0-0	0 - 10V	RELAY		85-270V AC/DC



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All sizes mentioned are in mm unless specified otherwise. Specifications are subject to change without prior notice.

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