



# PLC & Controllers

Product Selection List  
January 2024

# GENO<sup>®</sup>

[www.gemo.com.tr](http://www.gemo.com.tr)

## MODBUS MODULES

### MDTA;

### DIN Rail Mounted PID Temperature Controller Device

DIN rail mounted single or double channel enhanced PID temperature control device with MODBUS RTU protocol. Parameters may be saved and loaded to/from a file, may also be loaded and uploaded to/from a device by GEMOModuleMaster software (freeware).

Single Channel; Sensor Type: T/C (J,K,T,S,R), Pt100, selectable - multi input

Double Channel; Sensor Type: T/C (J,K,T,S,R), selectable - multi input

4 Relay Outputs, 4 SSR Outputs, 2 Digital Inputs



Product Code	Type	Power Supply	Number of Channels	Sensor Input	Control Type	Output	Dijital Input	Price
MDTA1TP	Temperature Controller	18..32Vdc	1	J,K,S,R,T,Pt100	Auto Tune PID / On-Off	4xRelay + 4xSSR	2	*
MDTA2T	Temperature Controller	18..32Vdc	2	J,K,S,R,T	Auto Tune PID / On-Off	4xRelay + 4xSSR	2	*

## AR2 SMART RELAY / PLC FAMILY

### AR2-A;

### Rail Mount Smart Relay / PLC Programmable with Ladder Logic

2x16 LCD Screen, extendable, rail mount smart relay / PLC, programmable with GUI "Gemo Ladder Editor"



Product Code	Type	Power Supply	Extendable	2x16 LCD Panel	Discrete Input	Analog Input	Discrete Output	Real Time Clock	PTC Input	Price
AR2-A-24VDC-14D	CPU	18..32Vdc	✓	✓	14	X	10xRelay	X	✓	*
AR2-A-24VDC-14D-RTC	CPU	18..32Vdc	✓	✓	14	X	10xRelay	✓	✓	*
AR2-A-24VDC-14D-TR	CPU	18..32Vdc	✓	✓	14	X	10xTransistor	X	✓	*
AR2-A-24VDC-14D-TR-RTC	CPU	18..32Vdc	✓	✓	14	X	10xTransistor	✓	✓	*
AR2-A-24VDC-12D2A	CPU	18..32Vdc	✓	✓	12	2x10Vdc	10xRelay	X	✓	*
AR2-A-24VDC-12D2A-RTC	CPU	18..32Vdc	✓	✓	12	2x10Vdc	10xRelay	✓	✓	*
AR2-A-24VDC-12D2A-TR	CPU	18..32Vdc	✓	✓	12	2x10Vdc	10xTransistor	X	✓	*
AR2-A-24VDC-12D2A-TR-RTC	CPU	18..32Vdc	✓	✓	12	2x10Vdc	10xTransistor	✓	✓	*
AR2-A-230VAC-14D	CPU	100..240Vac	✓	✓	14	X	10xRelay	X	✓	*
AR2-A-230VAC-14D-RTC	CPU	100..240Vac	✓	✓	14	X	10xRelay	✓	✓	*
AR2-A-230VAC-12D2A	CPU	100..240Vac	✓	✓	12	2x10Vdc	10xRelay	X	✓	*
AR2-A-230VAC-12D2A-RTC	CPU	100..240Vac	✓	✓	12	2x10Vdc	10xRelay	✓	✓	*

### AR2-P;

### Panel Mount Smart Relay / PLC Programmable with Ladder Logic

2x16 LCD Screen, extendable, panel mount smart relay / PLC, programmable with GUI "Gemo Ladder Editor", Panel Size; 96mm X 96mm



Product Code	Type	Power Supply	Extendable	2x16 LCD Panel	Discrete Input	Analog Input	Discrete Output	Real Time Clock	PTC Input	Price
AR2-P-24VDC-10D2A	CPU	18..32Vdc	✓	✓	10	2x10Vdc	7xRelay	X	✓	*
AR2-P-24VDC-10D2A-RTC	CPU	18..32Vdc	✓	✓	10	2x10Vdc	7xRelay	✓	✓	*
AR2-P-230VAC-10D2A	CPU	100..240Vac	✓	✓	10	2x10Vdc	7xRelay	X	✓	*
AR2-P-230VAC-10D2A-RTC	CPU	100..240Vac	✓	✓	10	2x10Vdc	7xRelay	✓	✓	*

## AR2 SMART RELAY / PLC FAMILY (Continued)

### AR2-A-8D;

#### Rail Mount Smart Relay / PLC Programmable with Ladder Logic

2x16 LCD Screen, rail mount smart relay / PLC,  
programmable with GUI "Gemo Ladder Editor"



Product Code	Type	Power Supply	Extendable	2x16 LCD Panel	Discrete Input	Analog Input	Discrete Output	Real Time Clock	PTC Input	Price
AR2-A-24VDC-8D	CPU	18..32Vdc	X	✓	8	X	5xRelay	X	✓	*
AR2-A-24VDC-8D-RTC	CPU	18..32Vdc	X	✓	8	X	5xRelay	✓	✓	*
AR2-A-230VAC-8D	CPU	100..240Vac	X	✓	8	X	5xRelay	X	✓	*
AR2-A-230VAC-8D-RTC	CPU	100..240Vac	X	✓	8	X	5xRelay	✓	✓	*

### AR2-G1;

#### Rail Mount Extension Module for AR2

Extension Module for AR2-A-14D, AR2-A-12D2A and AR2-P family



Product Code	Type	Power Supply	Led Panel	Discrete Input	Analog Input	Discrete Output	PTC Input	Compatible with	Price
AR2-G1-24VDC-14D	Extension	18..32Vdc	✓	14	X	10xRelay	✓	AR2-A-14D, AR2-A-12D2A, AR2-P	*
AR2-G1-24VDC-14D-TR	Extension	18..32Vdc	✓	14	X	10xTransistor	✓	AR2-A-14D, AR2-A-12D2A, AR2-P	*
AR2-G1-24VDC-12D2A	Extension	18..32Vdc	✓	12	2x10Vdc	10xRelay	✓	AR2-A-14D, AR2-A-12D2A, AR2-P	*
AR2-G1-24VDC-12D2A-TR	Extension	18..32Vdc	✓	12	2x10Vdc	10xTransistor	✓	AR2-A-14D, AR2-A-12D2A, AR2-P	*
AR2-G1-230VAC-14D	Extension	100..240Vac	✓	14	X	10xRelay	✓	AR2-A-14D, AR2-A-12D2A, AR2-P	*
AR2-G1-230VAC-12D2A	Extension	100..240Vac	✓	12	2x10Vdc	10xRelay	✓	AR2-A-14D, AR2-A-12D2A, AR2-P	*

### AR2-S-24VDC-MB1;

#### MODBUS Gateway for AR2

Modbus Gateway for AR2-A-14D, AR2-A-12D2A and AR2-P family

Product Code	Type	Power Supply	Led Panel	Compatible with	Price
AR2-S-24VDC-MB1	Gateway	18..32Vdc	✓	AR2-A-14D, AR2-A-12D2A, AR2-P	*



## AR1 SMART RELAY / PLC (Not Recommended for New Projects)

### AR1-A;

#### Rail Mount Smart Relay / PLC Programmable with Ladder Logic

2x16 LCD Screen, rail mount smart relay / PLC  
programmable with GUI "Gemo Ladder Editor (V1.1)"



Product Code	Type	Power Supply	Extendable	2x16 LCD Panel	Discrete Input	Analog Input	Discrete output	Real Time Clock	PTC Input	Price
AR1-A-24VDC	CPU	18..32Vdc	X	✓	12	X	8xRelay	X	X	*
AR1-A-230VAC	CPU	150..240Vac	X	✓	12	X	8xRelay	X	X	*

## **"AUTO-TUNE PID" TEMPERATURE STEP CONTROLLER**

### **PC109;**

#### **"Auto-tune PID" Temperature Step Controller**

Temperature Step Controller, 0..600/1300/1750°C, Multi-Input (J,K,S,Pt100), ON/OFF or PID (Auto-tune), "Offset" feature, Alarm output, optional SSR output, 20 steps, Power Failure Recovery Feature



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
PC109-24V-R	96x96	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,Pt100	*
PC109-24V-S	96x96	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,Pt100	*
PC109-230VAC-R	96x96	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,Pt100	*
PC109-230VAC-S	96x96	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,Pt100	*

### **PC107;**

#### **"Auto-tune PID" Temperature Step Controller**

Temperature Step Controller, 0..600/1300/1750°C, Multi-Input (J,K,S,Pt100), ON/OFF or PID (Auto-tune), "Offset" feature, Alarm output, optional SSR output, 20 steps, Power Failure Recovery Feature



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
PC107-24V-R	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,Pt100	*
PC107-24V-S	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,Pt100	*
PC107-230VAC-R	72x72	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,Pt100	*
PC107-230VAC-S	72x72	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,Pt100	*

## AUTO-TUNE PID TEMPERATURE CONTROLLERS with BUILT-IN TIMER **TT109X;**

### Auto-tune PID Temperature Controller with Built-in Timer

TT109X is the enhanced version of TT109 device, TT109X has faster and enhanced PID control algorithm, Auto-tuning for PID parameters, Timer controlled alarm modes or alarm modes in AX series devices, Timer SET (Delay) value; up to 99;59 hours, Timer ON duration; up to 99;59 minutes, Selectable automatic OFF for OUT after Timer SET time, Delay operation; up to 99;59 hours, Sensor type: T/C (J,K,T,S,R), Pt100 selectable, multi-input,

Selectable 0,1°C resolution for J,K,T and PT100, Ramping after power on (soft start)



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
TT109X-24V-R	96x96	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109X-24V-S	96x96	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109X-230VAC-R	96x96	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109X-230VAC-R-S	96x96	100..240Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109X-230VAC-S	96x96	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109X-230VAC-S-S	96x96	100..240Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

## **TT107X;**

### Auto-tune PID Temperature Controller with Built-in Timer

TT107X is the enhanced version of TT107 device, TT107X has faster and enhanced PID control algorithm, Auto-tuning for PID parameters, Timer controlled alarm modes or alarm modes in AX series devices, Timer SET (Delay) value; up to 99;59 hours, Timer ON duration; up to 99;59 minutes, Selectable automatic OFF for OUT after Timer SET time, Delay operation; up to 99;59 hours, Sensor type: T/C (J,K,T,S,R), Pt100 selectable, multi-input,

Selectable 0,1°C resolution for J,K,T and PT100, Ramping after power on (soft start)



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
TT107X-24V-R	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107X-24V-R-S	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107X-24V-S	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107X-24V-S-S	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107X-230VAC-R	72x72	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107X-230VAC-R-S	72x72	100..240Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107X-230VAC-S	72x72	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107X-230VAC-S-S	72x72	100..240Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

## **TT104X;**

### Auto-tune PID Temperature Controller with Built-in Timer

TT104X is the enhanced version of TT104 device, TT104X has faster and enhanced PID control algorithm, Auto-tuning for PID parameters, Timer controlled alarm modes or alarm modes in AX series devices, Timer SET (Delay) value; up to 99;59 hours, Timer ON duration; up to 99;59 minutes, Selectable automatic OFF for OUT after Timer SET time, Delay operation; up to 99;59 hours, Sensor type: T/C (J,K,T,S,R), Pt100 selectable, multi-input,

Selectable 0,1°C resolution for J,K,T and PT100, Ramping after power on (soft start)



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
TT104X-24V-R	48x48	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104X-24V-R-S	48x48	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104X-24V-S	48x48	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104X-24V-S-S	48x48	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104X-230VAC-R	48x48	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104X-230VAC-R-S	48x48	100..240Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104X-230VAC-S	48x48	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104X-230VAC-S-S	48x48	100..240Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

**AUTO-TUNE PID TEMPERATURE CONTROLLERS with BUILT-IN TIMER**  
**(Continued)**

**TT109;**

**Auto-tune PID Temperature Controller with Built-in Timer**

Temperature Controller with Built-in Timer; -100..600/1300/1750°C,  
Multi-Input (J,K,S,R,T, Pt100), 0.1°C resolution (Pt100),  
ON/OFF , P, PI, PD, PID (Auto-tune), Offset feature, Alarm and Heat outputs,  
99:59 hour Timer, Alarm out auto-shut off (max. 99:59 min),  
selectable Heat OFF with Alarm ON, optional SSR output



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
TT109-24V-R	96x96	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109-24V-S	96x96	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109-230VAC-R	96x96	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109-230VAC-R-S	96x96	100..240Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109-230VAC-S	96x96	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT109-230VAC-S-S	96x96	100..240Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

**TT107;**

**Auto-tune PID Temperature Controller with Built-in Timer**

Temperature Controller with Built-in Timer; -100..600/1300/1750°C,  
Multi-Input (J,K,S,R,T, Pt100), 0.1°C resolution (Pt100),  
ON/OFF , P, PI, PD, PID (Auto-tune), Offset feature, Alarm and Heat outputs,  
99:59 hour Timer, Alarm out auto-shut off (max. 99:59 min),  
selectable Heat OFF with Alarm ON, optional SSR output



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
TT107-24V-R	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107-24V-R-S	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107A-24V-S	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107A-24V-S-S	72x72	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107-230VAC-R	72x72	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107-230VAC-R-S	72x72	100..240Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107-230VAC-S	72x72	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT107-230VAC-S-S	72x72	100..240Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

**TT104;**

**Auto-tune PID Temperature Controller with Built-in Timer**

Temperature Controller with Built-in Timer; -100..600/1300/1750°C,  
Multi-Input (J,K,S,R,T, Pt100), 0.1°C resolution (Pt100),  
ON/OFF , P, PI, PD, PID (Auto-tune), Offset feature, Alarm and Heat outputs,  
99:59 hour Timer, Alarm out auto-shut off (max. 99:59 min),  
selectable Heat OFF with Alarm ON, optional SSR output



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
TT104-24V-R	48x48	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104-24V-R-S	48x48	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104-24V-S	48x48	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104-24V-S-S	48x48	18..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104-230VAC-R	48x48	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104-230VAC-R-S	48x48	100..240Vac	Auto Tune PID / On-Off	Relay	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104-230VAC-S	48x48	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
TT104-230VAC-S-S	48x48	100..240Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

## "AUTO-TUNE PID" TEMPERATURE CONTROLLERS

### DTH9;

#### Low Cost Auto-tune PID Temperature Controller

DTH9 is a low cost optimized Auto-tune PID temperature control device with only control output and with only heating function.

Control output may be relay or SSR or Relay+SSR at the same time – selectable.

DTH9 has a fast and enhanced PID control algorithm suitable for applications like "hot runner" and etc.

Sensor type: T/C (J,K,T,S,R), Pt100, selectable, multi-input, Selectable 0.1 °C resolution for J,K,T and Pt100

Minimum 1 second PID control period, Ramping after power on (soft-start) , SET display can be set to ON or OFF ON/OFF , P, PI, PD, PID (Auto-tune), Heating Function only, Offset feature



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DTH9-24V	96x96	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay+SSR	X	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DTH9-230VAC	96x96	100..240Vac	Auto Tune PID / On-Off	Relay+SSR	X	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

### DTH7;

#### Low Cost Auto-tune PID Temperature Controller

DTH7 is a low cost optimized Auto-tune PID temperature control device with only control output and with only heating function.

Control output may be relay or SSR or Relay+SSR at the same time – selectable.

DTH7 has a fast and enhanced PID control algorithm suitable for applications like "hot runner" and etc.

Sensor type: T/C (J,K,T,S,R), Pt100, selectable, multi-input, Selectable 0.1 °C resolution for J,K,T and Pt100

Minimum 1 second PID control period, Ramping after power on (soft-start) , SET display can be set to ON or OFF ON/OFF , P, PI, PD, PID (Auto-tune), Heating Function only, Offset feature



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DTH7-24V	72x72	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay+SSR	X	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DTH7-230VAC	72x72	100..240Vac	Auto Tune PID / On-Off	Relay+SSR	X	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

### DTH4;

#### Low Cost Auto-tune PID Temperature Controller

DTH4 is a low cost optimized Auto-tune PID temperature control device with only control output and with only heating function.

Control output may be relay or SSR or Relay+SSR at the same time – selectable.

DTH4 has a fast and enhanced PID control algorithm suitable for applications like "hot runner" and etc.

Sensor type: T/C (J,K,T,S,R), Pt100, selectable, multi-input Selectable 0.1 °C resolution for J,K,T and Pt100

Minimum 1 second PID control period, Ramping after power on (soft-start) , SET display can be set to ON or OFF ON/OFF , P, PI, PD, PID (Auto-tune), Heating Function only, Offset feature



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DTH4-24V	48x48	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay+SSR	X	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DTH4-230VAC	48x48	100..240Vac	Auto Tune PID / On-Off	Relay+SSR	X	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

### DTH2;

#### Low Cost Auto-tune PID Temperature Controller

DTH2 is a low cost optimized Auto-tune PID temperature control device with only control output and with only heating function.

Control output may be relay or SSR or Relay+SSR at the same time – selectable.

DTH2 has a fast and enhanced PID control algorithm suitable for applications like "hot runner" and etc.

Sensor type: T/C (J,K,T,S,R), Pt100, selectable, multi-input Selectable 0.1 °C resolution for J,K,T and Pt100

Minimum 1 second PID control period, Ramping after power on (soft-start) , SET display can be set to ON or OFF ON/OFF , P, PI, PD, PID (Auto-tune), Heating Function only, Offset feature



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DTH2-230VAC	35x77	100..240Vac	Auto Tune PID / On-Off	Relay+SSR	X	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

## "AUTO-TUNE PID" TEMPERATURE CONTROLLERS (Continued)

### DT109AX;

#### Enhanced "Auto-tune PID" Temperature Controller

DT109AX is the enhanced version of DT109A device.

DT109AX has faster and enhanced PID control algorithm for applications like "hot runner" and etc.

Selectable 0.1 °C resolution for J,K,T and Pt100, Minimum 1 second PID control period,  
Selectable relative, absolute, band or sensor failure alarm,  
Ramping after power on (soft-start) ,SET display can be set to ON or OFF  
Multi-Input (J,K,S,R,T, Pt100),ON/OFF , P, PI, PD, PID (Auto-tune),  
Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
Delay timer for cooling function, optional SSR output.



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT109AX-24V-R	96x96	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT109AX-24V-S	96x96	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT109AX-230VAC-R	96x96	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT109AX-230VAC-S	96x96	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

### DT107AX;

#### Enhanced "Auto-tune PID" Temperature Controller

DT107AX is the enhanced version of DT107A device.

DT107AX has faster and enhanced PID control algorithm for applications like "hot runner" and etc.

Selectable 0.1 °C resolution for J,K,T and Pt100, Minimum 1 second PID control period,  
Selectable relative, absolute, band or sensor failure alarm,  
Ramping after power on (soft-start) ,SET display can be set to ON or OFF  
Multi-Input (J,K,S,R,T, Pt100),ON/OFF , P, PI, PD, PID (Auto-tune),  
Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
Delay timer for cooling function, optional SSR output.



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT107AX-24V-R	72x72	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT107AX-24V-S	72x72	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT107AX-230VAC-R	72x72	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT107AX-230VAC-S	72x72	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT107AX-230VAC-S-S	72x72	100..240Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

### DT104AX;

#### Enhanced "Auto-tune PID" Temperature Controller

DT104AX is the enhanced version of DT104A device.

DT104AX has faster and enhanced PID control algorithm for applications like "hot runner" and etc.

Selectable 0.1 °C resolution for J,K,T and Pt100 Minimum 1 second PID control period,  
Selectable relative, absolute, band or sensor failure alarm,  
Ramping after power on (soft-start) , SET display can be set to ON or OFF  
Multi-Input (J,K,S,R,T, Pt100), ON/OFF , P, PI, PD, PID (Auto-tune),  
Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
Delay timer for cooling function, optional SSR output.



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT104AX-24V-R	48x48	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT104AX-24V-S	48x48	20..32Vdc / 14..28Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT104AX-230VAC-R	48x48	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT104AX-230VAC-S	48x48	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT104AX-230VAC-S-S	48x48	100..240Vac	Auto Tune PID / On-Off	SSR	SSR	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*



## **"AUTO-TUNE PID" TEMPERATURE CONTROLLERS (Continued)**

### **DT102AX;**

#### **Enhanced "Auto-tune PID" Temperature Controller**

**DT102AX has faster and enhanced PID control algorithm for applications like "hot runner" and etc.**

Selectable 0.1 °C resolution for J,K,T and Pt100 Minimum 1 second PID control period,  
Selectable relative, absolute, band or sensor failure alarm,  
Ramping after power on (soft-start) , SET display can be set to ON or OFF  
Multi-Input (J,K,S,R,T, Pt100), ON/OFF , P, PI, PD, PID (Auto-tune),  
Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
Delay timer for cooling function, optional SSR output.



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT102AX-230VAC-R	35x77	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT102AX-230VAC-S	35x77	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

### **DT106AX;**

#### **Enhanced "Auto-tune PID" Temperature Controller**

**DT106AX has faster and enhanced PID control algorithm for applications like "hot runner" and etc.**

Selectable 0.1 °C resolution for J,K,T and Pt100 Minimum 1 second PID control period,  
Selectable relative, absolute, band or sensor failure alarm,  
Ramping after power on (soft-start) , SET display can be set to ON or OFF  
Multi-Input (J,K,S,R,T, Pt100), ON/OFF , P, PI, PD, PID (Auto-tune),  
Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
Delay timer for cooling function, optional SSR output.



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT106AX-230VAC-R	96x48	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT106AX-230VAC-S	96x48	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

### **DT105AX;**

#### **Enhanced "Auto-tune PID" Temperature Controller**

**DT105AX has faster and enhanced PID control algorithm for applications like "hot runner" and etc.**

Selectable 0.1 °C resolution for J,K,T and Pt100 Minimum 1 second PID control period,  
Selectable relative, absolute, band or sensor failure alarm,  
Ramping after power on (soft-start) , SET display can be set to ON or OFF  
Multi-Input (J,K,S,R,T, Pt100), ON/OFF , P, PI, PD, PID (Auto-tune),  
Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
Delay timer for cooling function, optional SSR output.



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT105AX-230VAC-R	48x96	100..240Vac	Auto Tune PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*
DT105AX-230VAC-S	48x96	100..240Vac	Auto Tune PID / On-Off	SSR	Relay	2x4 Digits, PV and SV	J,K,S,R,T,Pt100	*

## ON/OFF TEMPERATURE CONTROLLERS

### **DT900;** **ON/OFF Temperature Controller**

Digital Temp. Controller, ON/OFF control form, 0..600 °C Fe-Const (J-type) or 0..999 °C NiCr-Ni (K-Type), 7 segment display, single output, programmable hysteresis and upper limit



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT900-24V-R	96x96	18..32Vdc / 14..28Vac	On-Off	Relay	X	1x3 Digits, PV	J Type	*
DT900-230VAC-R	96x96	100..240Vac	On-Off	Relay	X	1x3 Digits, PV	J Type	*
DT900-230VAC-S	96x96	100..240Vac	On-Off	SSR	X	1x3 Digits, PV	J Type	*
DT900-230VAC-R-K	96x96	100..240Vac	On-Off	Relay	X	1x3 Digits, PV	K Type	*

### **DT721;** **ON/OFF Temperature Controller**

Digital Temp. Controller, ON/OFF control form, 0..600 °C Fe-Const (J-type) or 0..999 °C NiCr-Ni (K-Type), 7 segment display, single output, programmable hysteresis and upper limit



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT721-24V-R	72x72	18..32Vdc / 14..28Vac	On-Off	Relay	X	1x3 Digits, PV	J Type	*
DT721-230VAC-R	72x72	100..240Vac	On-Off	Relay	X	1x3 Digits, PV	J Type	*
DT721-230VAC-S	72x72	100..240Vac	On-Off	SSR	X	1x3 Digits, PV	J Type	*
DT721-230VAC-R-K	72x72	100..240Vac	On-Off	Relay	X	1x3 Digits, PV	K Type	*

### **DT481;** **ON/OFF Temperature Controller**

Digital Temp. Controller, ON/OFF control form, 0..600 °C Fe-Const (J-type) or 0..999 °C NiCr-Ni (K-Type), 7 segment display, single output, programmable hysteresis and upper limit



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT481-24V-R	48x48	18..32Vdc / 14..28Vac	On-Off	Relay	X	1x3 Digits, PV	J Type	*
DT481-24V-S	48x48	18..32Vdc / 14..28Vac	On-Off	SSR	X	1x3 Digits, PV	J Type	*
DT481-230VAC-R	48x48	100..240Vac	On-Off	Relay	X	1x3 Digits, PV	J Type	*
DT481-230VAC-S	48x48	100..240Vac	On-Off	SSR	X	1x3 Digits, PV	J Type	*
DT481-230VAC-R-K	48x48	100..240Vac	On-Off	Relay	X	1x3 Digits, PV	K Type	*

## ON/OFF TEMPERATURE CONTROLLERS (Continued)

### **AT961;** **ON/OFF Temperature Controller with Analog SET**

Temperature Controller with Digital Display and Analogue SET, 0..400°C,  
Fe-Const input, ON/OFF or Proportional control (user selectable)



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
AT961-230VAC-R	96x96	100..240Vac	On-Off	Relay	X	1x3 Digits, PV	J Type	*

### **DT961;** **ON/OFF Temperature Controller**

Digital Temperature Controller, Fixed Hysteresis (3 °C),  
T/C J Type (Fe-Const) input, ON-OFF control form



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT961-230VAC-R	96x96	100..240Vac	On-Off	Relay	X	2x4 Digits, PV and SV	J Type	*

## ON/OFF TEMPERATURE CONTROLLERS (NTC INPUT)

### LT172;

### ON/OFF Temperature Controller with Heating & Cooling Function

Temperature Controller; -30..+150°C, NTC sensor input,  
ON/OFF, Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
absolute, relative or sensor failure alarm options, Delay timer for cooling function,  
Adjustable Heat output in case of sensor failure



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Scale	Price
LT172-12VDC-R	36x72	10..16Vdc	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-50°C...+150°C	*
LT172-24VDC-R	36x72	18..32Vdc	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-50°C...+150°C	*
LT172-230VAC-R	36x72	100..240Vac	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-50°C...+150°C	*

### LT172N;

### ON/OFF Temperature Controller with Heating & Cooling Function

Temperature Controller; -19.9..+99.9°C, NTC sensor input,  
ON/OFF, Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
absolute, relative or sensor failure alarm options, Delay timer for cooling function,  
Adjustable Heat output in case of sensor failure



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Scale	Price
LT172N-12VDC-R	36x72	10..16Vdc	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-19.9°C...+99.9°C	*
LT172N-24VDC-R	36x72	18..32Vdc	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-19.9°C...+99.9°C	*
LT172N-230VAC-R	36x72	100..240Vac	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-19.9°C...+99.9°C	*

### LT177;

### ON/OFF Temperature Controller with Heating & Cooling Function

Temperature Controller; -30..+150°C, NTC sensor input,  
ON/OFF, Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
absolute, relative or sensor failure alarm options, Delay timer for cooling function,  
Adjustable Heat output in case of sensor failure

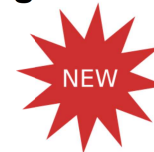


Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Scale	Price
LT177-12VDC-R	35x77	10..16Vdc	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-30°C...+150°C	*
LT177-24VDC-R	35x77	18..32Vdc	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-30°C...+150°C	*
LT177-230VAC-R	35x77	100..240Vac	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-30°C...+150°C	*

### LT177N;

### ON/OFF Temperature Controller with Heating & Cooling Function

Temperature Controller; -19.9..+99.9°C, NTC sensor input,  
ON/OFF, Heating/Cooling Function, Offset feature, Alarm and Heat outputs,  
absolute, relative or sensor failure alarm options, Delay timer for cooling function,  
Adjustable Heat output in case of sensor failure



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Scale	Price
LT177N-12VDC-R	35x77	10..16Vdc	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-19.9°C...+99.9°C	*
LT177N-24VDC-R	35x77	18..32Vdc	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-19.9°C...+99.9°C	*
LT177N-230VAC-R	35x77	100..240Vac	On-Off	Relay	Relay	1x3 Digits, PV	NTC	-19.9°C...+99.9°C	*

## UNIVERSAL CONTROLLERS

### UC107; Universal Controller

Universal controller with; 0..20mA / 4..20mA / 0-10V / 0-1V input (user selectable), ON/OFF output, user calibration, user selectable decimal point, double output, optional SSR output



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
UC107-24V-R	72x72	18..32Vdc / 14..28Vac	On-Off	Relay	Relay	2x4 Digits, PV and SV	0-20mA, 4-20mA, 0-10V, 0-1V	*
UC107-24V-S	72x72	18..32Vdc / 14..28Vac	On-Off	SSR	Relay	2x4 Digits, PV and SV	0-20mA, 4-20mA, 0-10V, 0-1V	*
UC107-230VAC-R	72x72	100..240Vac	On-Off	Relay	Relay	2x4 Digits, PV and SV	0-20mA, 4-20mA, 0-10V, 0-1V	*
UC107-230VAC-S	72x72	100..240Vac	On-Off	SSR	Relay	2x4 Digits, PV and SV	0-20mA, 4-20mA, 0-10V, 0-1V	*

### UC104; Universal Controller

Universal controller with; 0..20mA / 4..20mA / 0-10V / 0-1V input (user selectable), ON/OFF output, user calibration, user selectable decimal point, double output, optional SSR output



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
UC104-24V-R	48x48	18..32Vdc / 14..28Vac	On-Off	Relay	Relay	2x4 Digits, PV and SV	0-20mA, 4-20mA, 0-10V, 0-1V	*
UC104-24V-S	48x48	18..32Vdc / 14..28Vac	On-Off	SSR	Relay	2x4 Digits, PV and SV	0-20mA, 4-20mA, 0-10V, 0-1V	*
UC104-230VAC-R	48x48	100..240Vac	On-Off	Relay	Relay	2x4 Digits, PV and SV	0-20mA, 4-20mA, 0-10V, 0-1V	*
UC104-230VAC-S	48x48	100..240Vac	On-Off	SSR	Relay	2x4 Digits, PV and SV	0-20mA, 4-20mA, 0-10V, 0-1V	*

## COUNTERS

### **DS217A;** **6 Digit Up/Down Counter**

Preset Up/Down Counter; Double Preset, Double Output, CP1, CP2, RESET inputs, switch, proximity or encoder input (NPN/PNP/Totem Pole), double display, 6 digits, calibration constant, SS outputs

Product Code	Panel Size (mm)	Power Supply	Display	Relay Output	SS Output	Price
DS217A-24V	72x72	18..32Vdc / 14..28Vac	2x6 Digits, PV and SV	2	2	*
DS217A-230VAC	72x72	100..240Vac	2x6 Digits, PV and SV	2	2	*



### **DS207;** **4 Digit Up/Down Counter**

Preset Up/Down Counter; Double Preset, Double Output, CP1, CP2, RESET inputs, switch, proximity or encoder input (NPN/PNP/Totem Pole), double display, 4 digits, calibration constant, SS outputs

Product Code	Panel Size (mm)	Power Supply	Display	Relay Output	SS Output	Price
DS207-24V	72x72	18..32Vdc / 14..28Vac	2x4 Digits, PV and SV	2	2	*
DS207-230VAC	72x72	100..240Vac	2x4 Digits, PV and SV	2	2	*



### **DS204;** **4 Digit Up/Down Counter**

Preset Up/Down Counter; Single Preset, Single Output, CP1, CP2, RESET inputs, switch, proximity or encoder input (NPN/PNP/Totem Pole), double display, 4 digits, calibration constant, SS output

Product Code	Panel Size (mm)	Power Supply	Display	Relay Output	SS Output	Price
DS204-24V	48x48	18..32Vdc / 14..28Vac	2x4 Digits, PV and SV	1	1	*
DS204-230VAC	48x48	100..240Vac	2x4 Digits, PV and SV	1	1	*



## MULTI FUNCTION TIMERS

### **DZ309;** **Multi Function Timer**

Digital Timer; Double Output, Double Display, 4 digits, START, RESET, GATE inputs (all inputs 230VAC), user selectable Out modes, Programmable in range 0.1sec ... 99 hours, remembers last time count after Power On.



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
DZ309-24V	96x96	18..32Vdc / 14..28Vac	2x4 Digits, PV and SV	Multi Function (8 Modes)	2	✓	✓	✓	*
DZ309-230VAC	96x96	100..240Vac	2x4 Digits, PV and SV	Multi Function (8 Modes)	2	✓	✓	✓	*

### **DZ307;** **Multi Function Timer**

Digital Timer; Double Output, Double Display, 4 digits, START, RESET, GATE inputs (all inputs 24VDC, switch, proximity–PNP/Totem Pole), user selectable Out modes, Programmable in range 0.1sec ... 99hours, remembers last time count after Power On, SS Outs.



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
DZ307-24V	72x72	18..32Vdc / 14..28Vac	2x4 Digits, PV and SV	Multi Function (8 Modes)	2	✓	✓	✓	*
DZ307-230VAC	72x72	100..240Vac	2x4 Digits, PV and SV	Multi Function (8 Modes)	2	✓	✓	✓	*

### **DZ304;** **Multi Function Timer**

Digital Timer; Single Output, Double Display, 4 digits, START, RESET, GATE inputs (all inputs 24VDC, switch, proximity–PNP/Totem Pole), user selectable Out modes, Programmable in range 0.1sec ... 99hours, remembers last time count after Power On, SS Out.



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
DZ304-24V	48x48	18..32Vdc / 14..28Vac	2x4 Digits, PV and SV	Multi Function (13 Modes)	1	✓	✓	✓	*
DZ304-230VAC	48x48	100..240Vac	2x4 Digits, PV and SV	Multi Function (13 Modes)	1	✓	✓	✓	*

## **BASIC FUNCTION TIMERS**

### **DZ900;** **Basic Function Timer**

Digital Timer with Instantaneous and Delayed output (double outputs),  
99.9sec/999sec/99.9min/999min.(selectable),7 segment display, Selectable Flashing mode



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
DZ900-230VAC	96x96	100..240Vac	1x3 Digits, PV	On Delay / Flashing	2	X	X	X	*

### **DZ721;** **Basic Function Timer**

Digital Timer with Instantaneous and Delayed output (double outputs),  
99.9sec/999sec/99.9min/999min.(selectable),7 segment display, Selectable Flashing mode



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
DZ721-230VAC	72x72	100..240Vac	1x3 Digits, PV	On Delay / Flashing	2	X	X	X	*

### **DZ481;** **Basic Function Timer**

Digital Timer with Instantaneous and Delayed output (double outputs),  
99.9sec/999sec/99.9min/999min.(selectable),7 segment display, Selectable Flashing mode



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
DZ481-24VDC	48x48	18..32Vdc	1x3 Digits PV	On Delay / Flashing	2	X	X	X	*
DZ481-230VAC	48x48	100..240Vac	1x3 Digits, PV	On Delay / Flashing	2	X	X	X	*

### **DZ482;** **DZ482; Basic Function Timer with START Input**

Digital Timer with Instantaneous and Delayed output (double outputs),  
99.9sec/999sec/99.9min/999min.(selectable),7 segment display, Selectable Flashing mode,  
with START input



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
DZ482-24VDC	48x48	18..32Vdc	1x3 Digits, PV	On Delay / Flashing	2	✓	X	X	*
DZ482-230VAC	48x48	100..240Vac	1x3 Digits, PV	On Delay / Flashing	2	✓	X	X	*



## **BASIC FUNCTION TIMERS (Continued)**

### **AZ961;** **Basic Function Timer with Analog SET**

Timer with Digital Display and Analogue SET; Single Output, RESET input, 4.0sec/40sec/4.0min/40min. (user selectable)



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
AZ961-230VAC	96x96	100..240Vac	1x3 Digits, PV	On Delay	2	X	✓	X	*

### **DZ961;** **Basic Function Timer**

Digital On Delay Timer (99 minutes), with RESET input



Product Code	Panel Size (mm)	Power Supply	Display	Function	Relay Output	Start Input	Reset Input	Gate Input	Price
DZ961-230VAC	96x96	100..240Vac	2x4 Digits, PV and SV	On Delay	2	X	✓	X	*

## TEMPERATURE AND HUMIDITY CONTROLLERS

### **LT102HT;** **ON/OFF Temperature and Humidity Controller**

Micro processor based temperature and humidity controller,  
Measurement and control scale: -19,9°C ... +80,0°C, 5 ... 95 %RH ,  
ON-OFF control, Separate control outputs for temperature and humidity,  
Selectable Heating and Cooling function, Selectable humidity increase / decrease function



Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output 1	Control Output 2	Display	Input	Scale	Price
LT102HT-230VAC-R	35x77	100..240Vac	On-Off	Relay	Relay	1x3 Digits, PV	GM-HT-01	-19,9°C ... +80,0°C, 5 ... 95 %RH	*

## DIGITAL POTENTIOMETERS

### **DP102-V;** **Digital Potentiometer with 0..10V Output**

Analog output: 0-10V , 1x4 7 Segment LED display,  
Menu entry and analog output control via front keys,  
Analog output control via digital inputs, Adjustable scale upper and lower level,  
Adjustable upper and lower limit for SET, Spare function selection for the front keys and digital inputs to control analog output,  
Password protection, SECU setting for enable/disable SET adjust menu entry, High accuracy,  
EEPROM Memory to store settings, Easy Connection with plug-in connectors



Product Code	Panel Size (mm)	Power Supply	Control Output	Display	Price
DP102-V-230VAC	35x77	100..240Vac	0-10V	1x4 Digit	*

### **DP102-mA;** **Digital Potentiometer with 4..20mA Output**

Analog output: 4-20mA , 1x4 7 Segment LED display,  
Menu entry and analog output control via front keys,  
Analog output control via digital inputs, Adjustable scale upper and lower level,  
Adjustable upper and lower limit for SET, Spare function selection for the front keys and digital inputs to control analog output,  
Password protection, SECU setting for enable/disable SET adjust menu entry, High accuracy,  
EEPROM Memory to store settings, Easy Connection with plug-in connectors



Product Code	Panel Size (mm)	Power Supply	Control Output	Display	Price
DP102-mA-230VAC	35x77	100..240Vac	4-20mA	1x4 Digit	*

## PANELMETERS

### **DPM72-VAC500;** **Digital Panel Mount Voltmeter**

Micro processor based digital panel mount voltmeter

Product Code	Panel Size (mm)	Power Supply	Display	Input	Price
DPM72-VAC500	72x72	230VAC	1x3 Digits	0..500 VAC	*



### **DPM48-VAC500;** **Digital Panel Mount Voltmeter**

Micro processor based digital panel mount voltmeter

Product Code	Panel Size (mm)	Power Supply	Display	Input	Price
DPM48-VAC500	48x48	230VAC	1x3 Digits	0..500 VAC	*



## CUSTOM PRODUCTS

### **DT107PX;** **PID Temperature Controller**

DT107PX is the enhanced version of DT107P device.

Minimum 1 second PID control period

Ramping after power on (soft-start)

SET display can be set to ON or OFF

-100..600°C, J Type T/C Input, ON/OFF , P, PI, PD, PID Heating function,

adjustable "Offset", Alarm and Heat outputs, selectable absolute, Relative, band or sensor failure alarm

Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT107PX-230VAC-R	72x72	100..240Vac	PID / On-Off	Relay	Relay	2x4 Digits, PV and SV	J Type	*



### **DT104PX;** **PID Temperature Controller**

DT104PX is the enhanced version of DT104P device.

Minimum 1 second PID control period

Ramping after power on (soft-start)

SET display can be set to ON or OFF

-100..600°C, J Type T/C Input, ON/OFF , P, PI, PD, PID Heating function,

adjustable "Offset", Alarm and Heat outputs, selectable absolute, Relative, band or sensor failure alarm

Product Code	Panel Size (mm)	Power Supply	Control Type	Control Output	Alarm Output	Display	Input	Price
DT104PX-230VAC-R	48x48	100..240Vac	PID / On-Off	Relay	Relay	2x4 Digits, PV ve SV	J Type	*



## SENSORS

### J Type (Fe-Const) Termocouples

Bayonet type T/C, Fe-Const (J type), diameter 6 mm

Product Code	Diameter	Type	Cable Length	Measuring Scale	Price
J-1.5M-6mm	6 mm	Bayonet	1,5 meters	-100°C..+600°C	*
J-2M-6mm	6 mm	Bayonet	2 meters	-100°C..+600°C	*
J-3M-6mm	6 mm	Bayonet	3 meters	-100°C..+600°C	*
J-5M-6mm	6 mm	Bayonet	5 meters	-100°C..+600°C	*
J-10M-6mm	6 mm	Bayonet	10 meters	-100°C..+600°C	*



### PT100-6H-SLK; PT100 Temperature Sensor

3-wire Pt100 sensor; with 3m silicon type cable, 6mm diameter, (-50°C ... +200°C)

Product Code	Diameter	Type	Cable Length	Measuring Scale	Price
PT100-6H-SLK	6 mm	without Threaded Head	3 meters	-50°C..+200°C	*



### PT100-6S-SLK; PT100 Temperature Sensor

3-wire Pt100 sensor; with 3m silicon type cable, 6mm diameter, (-50°C ... +200°C)

Product Code	Diameter	Type	Cable Length	Measuring Scale	Price
PT100-6S-SLK	6 mm	with Threaded Head	3 meters	-50°C..+200°C	*



### GM-NTC-105C; Plastic Over-moulding NTC Temperature Sensor

2-wire NTC sensor; with 1.5m cable (-30°C ... +105°C)



Product Code	Diameter	Type	Cable length	Measuring Scale	Compatible with	Price
GM-NTC-105C	-	Over-moulding	1,5 meters	-30°C..+105°C	LT172, LT172N, LT177, LT177N	*



### GM-NTC-6H-SLK; NTC Temperature Sensor

2-wire NTC sensor; with 1.5m silicon type cable, 6mm diameter, (-30°C ... +150°C)



Product Code	Diameter	Type	Cable Length	Measuring Scale	Compatible with	Price
GM-NTC-6H-SLK	6 mm	without Threaded Head	1,5 meters	-30°C..+150°C	LT172, LT172N, LT177, LT177N	*



## **SENSORS (Continued)**

### **GM-NTC-6S-SLK; NTC Temperature Sensor**

2-wire NTC sensor; with 1.5m silicon type cable, 6mm diameter, (-30°C ... +150°C)



Product Code	Diameter	Type	Cable Length	Measuring Scale	Compatible with	Price
GM-NTC-6S-SLK	6 mm	with Threaded Head	1,5 meters	-30°C..+150°C	LT172, LT172N, LT177, LT177N	*



### **PTC-H-130C; PTC Temperature Sensor**

2-wire PTC sensor; with 1.5m silicon type cable, 6mm diameter, (-50°C ... +130°C)

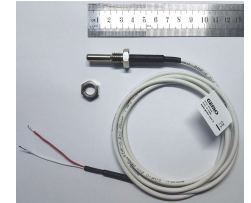
Product Code	Diameter	Type	Cable Length	Measuring Scale	Compatible with	Price
PTC-H-130C	6 mm	without Threaded Head	1,5 meters	-50°C..+130°C	AR2-P, AR2-A-8D	*



### **PTC-S-130C; PTC Temperature Sensor**

2-wire PTC sensor; with 1.5m silicon type cable, 6mm diameter, (-50°C ... +130°C)

Product Code	Diameter	Type	Cable Length	Measuring Scale	Compatible with	Price
PTC-S-130C	6 mm	with Threaded Head	1,5 meters	-50°C..+130°C	AR2-P, AR2-A-8D	*



### **AR2-PTC-H-130C; PTC Temperature Sensor**

2 wire PTC sensor; with 1.5m silicon type cable, 6mm diameter, (-50°C ... +130°C)  
(for AR2 14D and 12D2A family)

Product Code	Diameter	Type	Cable Length	Measuring Scale	Compatible with	Price
AR2-PTC-H-130C	6 mm	without Threaded Head	1,5 meters	-50°C..+130°C	AR2-A-14D, AR2-A-12D2A, AR2-G1	*



### **AR2-PTC-S-130C; PTC Temperature Sensor**

2 wire PTC sensor; with 1.5m silicon type cable, 6mm diameter, (-50°C ... +130°C)  
(for AR2 14D and 12D2A family)

Product Code	Diameter	Type	Cable Length	Measuring Scale	Compatible with	Price
AR2-PTC-S-130C	6 mm	with Threaded Head	1,5 meters	-50°C..+130°C	AR2-A-14D, AR2-A-12D2A, AR2-G1	*



## SENSORS (Continued)

### **GM-HT-01;** **Temperature and Humidity Sensor**

Digital Temperature and Humidity Sensor with 3 Wire Silicon Cable  
Measuring Scale: -19,9 ... +80,0°C, 5 ... 95%RH (without condensation)  
Resolution:  $\pm 0,1^\circ\text{C}$ ,  $\pm 1\%RH$  Accuracy:  $\pm \% 1$  ( $^\circ\text{C}$ ),  $\pm \% 3$  (%RH);(Over full scale)  
Cable Length: 1.5m

Product Code	Resolution	Accuracy	Cable Length	Measuring Scale	Compatible with	Price
GM-HT-01	$\pm 0,1^\circ\text{C}$ , $\pm 1\%RH$	$\pm \% 1$ ( $^\circ\text{C}$ ), $\pm \% 3$ (%RH) (over full scale)	1,5 meters	-19,9°C..+80°C, 5 ... 95%RH (without condensation)	LT102HT	*



## CABLES

### **AR2-RS232-A;** **RS-232 Programming Cable**

RS-232 cable for software downloading from PC to AR2 14D and 12D2A family, length 3 m.

Product Code	Cable Length	Compatible with	Price
AR2-RS232-A	3 meters	AR2-A-14D, AR2-A-12D2A	*



### **AR2-V3-RS232-A;** **RS-232 Programming Cable**

RS-232 cable for software downloading from PC to AR2 8D and AR2-P 10D2A family, length 3 m.

Product Code	Cable Length	Compatible with	Price
AR2-V3-RS232-A	3 meters	AR2-A-8D, AR2-P	*



### **AR1-RS232-A;** **RS-232 Programming Cable**

RS-232 cable for software downloading from PC to AR1 family, length 3 m.

Product Code	Cable Length	Compatible with	Price
AR1-RS232-A	3 meters	AR1-A	*



### **AR2-RES-500;** **External 500 Ohm Shunt Resistor with Cables**

External Shunt Resistor for 4..20mA to 0..10V signal conversion.  
500 Ohm nominal, %1, 0.5W, with cables ready for mounting.

Product Code	Compatible with	Price
AR2-RES-500	AR2-A-12D2A, AR2-P, AR2-G1-12D2A	*

