

# NOVUS CONTROLLERS

## Selection Guide



### COST EFFECTIVE FAMILIES (Temperature, PID PWM Output)



### ADVANCED FEATURES FAMILIES (Universal Input, RS485 Modbus, Ramp & Soaks, PID Analog Output, 4-20 mA retransmission, Digital Input, Square Root)



Controller Type	Temperature	Temperature	Temperature	Temperature	Temperature	Temperature	Temperature	Temperature	Process	Process	Process	Process	Process	Process
PID Output Control Mode	PWM	PWM	PWM	PWM	PWM	PWM & Analog (optional)	PWM & Analog (optional)	PWM & Analog (optional)	PWM	PWM & Analog (optional)	PWM & Analog	PWM & Analog	PWM & Analog	PWM & Analog
Auto Tune PID	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Self-Adaptive PID	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Control Loops	1	1	1	1	1	1	1	1	2	1	1	2	1	1
Control Action	Heat or Cool	Heat or Cool	Heat or Cool	Heat or Cool	Heat or Cool	Heat or Cool	Heat or Cool	Heat or Cool	Heat & Cool with Overlap	Heat or Cool	Heat or Cool	Heat & Cool with Overlap	Heat or Cool	Servo
Output Relay	1	1	Up to 3	Up to 3	1	Up to 3	2	2	•	Up to 4	Up to 3	Up to 3	Up to 4	Up to 4
Output Pulse	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Output Analog						Optional	•	Optional		•	•	•	•	•
Ramp to Soak Function					•	•	•	•		•	•	•	•	•
Ramp & Soak Programs						1	•	1	20	7	20	20	7	7
Soft-Start Function			•	•	•			•	•	•	•	•	•	•
Bumpless Function								•	•	•	•	•	•	•
Manual Operation								•	•	•	•	•	•	•
Display	Double	Double	Double	Double	Single	Double	Double	Double	Double	Double	Double	Double	Double	Double
Input Type	J, K, T, e Pt100				J, K, T, R, S, E, N, Pt100 e 0-50mV	J, K, T, R, S, E, N e Pt100		J, K, T, e Pt100	J, K, T, R, S, E, B, N, Pt100, 4-20mA, 0-50mV, 0-5V, 0-10 V	J, K, T, R, S, E, B, N, Pt100, 4-20mA, 0-50mV e 0-5V	J, K, T, R, S, E, B, N, Pt100, 4-20mA, 0-50mV, 0-5V e 0-10V		J, K, T, R, S, E, B, N, Pt100, 4-20mA, 0-50mV e 0-5V	J, K, T, R, S, N, Pt100, 4-20mA, 0-50mV e 0-5V
Input Resolution Levels	32767	32767	32767	32767	32767	32767	32767	32767	32767	32767	32767	32767	32767	20000
Input Sample Rate	5 sps	5 sps	55 sps	55 sps	55 sps	55 sps	55 sps	20 sps	55 sps	10 sps	55 sps	55 sps	10 sps	5 sps
Detection of Sensor Break	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Detection of PID Loop Break			•	•	•			•	•			•		
Detection of Heater Break														
Alarm Number	1	1	2	2	2	2	2	2	2	4	Optional 4	4	4	2
Alarm Types	Low, High, Dif, DifLo, DifHi and InputErr				Low, High, Dif, DifLo, DifHi, Ton, TEnd e InputErr	Low, High, Dif, DifLo, DifHi, EndSoak, Event and InputErr		Low, High, Dif, DifLo, DifHi, Event and InputErr	Low, High, Dif, DifLo, DifHi, Event and InputErr	Low, High, Dif, DifLo, DifHi, ResistFail, Event and Input Error		Low, High, Dif, DifLo, DifHi, Event and InputErr	Low, High, Dif, DifLo, DifHi, ResistFail, Event and Input Error	
Digital Input									•	•	•	•	•	•
Remote Setpoint Input									•	•	•	•	•	•
Setpoint Retransmission								•		•	•	•	•	•
Square Root										•	•	•	•	•
Timer		•		•	•									
Data Logger Function									Optional					
Password Protection	•	•	•	•	•			•	•	•	•	•	•	•
24V Power Supply for Sensors									•	•	•	•	•	•
RS-485 ModBus RTU					Optional				•	Optional	Optional	Optional	Optional	Optional
USB		•	•	•	•	•	•	•	•	•	•	•	•	•
CE Certification	•	•	•	•	•	•	•	•	•	•	•	•	•	•
UL Certification	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Frontal IP65	•	•	•	•	•	•	•	•	n/a	•	•	•	•	•
Power Supply	100-240 Vac/dc or 12-24 Vdc (Optional)				100-240 Vac/dc	100-240 Vac/dc or 12-24 Vdc (Optional)		100-240 Vac/dc	100-240 Vac/dc or 12-24 Vdc (Optional)					
Panel Format	48x48 DIN 1/16	48x48 DIN 1/16	48x48 DIN 1/16	48x48 DIN 1/16	48x24 DIN 1/32	48x48 DIN 1/16	96x96 DIN 1/4	96x48 DIN 1/8	Board only Dual Display	96x96 DIN 1/4	48x48 DIN 1/16	48x48 DIN 1/16	96x48 DIN 1/8	96x48 DIN 1/8