



DP6xxA / CN616A

CN616A – 6 Channel PID Loop Controller

Universal 6 Channel 1/4 DIN Controller



CN616A



- ✓ Universal TC, RTD and Process Inputs Firmware Selectable
- ✓ User Programmable Alarms Individually Settable per Channel
- ✓ Adjustable Scan Time: 400ms Scan Rate per Channel
- ✓ 2 User Assignable Alarm Relays
- ✓ RS232/RS485 Communications
- ✓ Password Protection



CN616A, shown smaller than actual size.

DP606/DP612/CN616A Order Options



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Model	Type	Inputs	Outputs
DP606	Monitor	6 X TC, 6 X 0-24 mA, 6 X mV , 6 X 2 wire RTD, 6 X 3 wire RTD	2 X SPDT alarm output
DP612	Monitor	12 X TC, 12 X 0-24 mA, 12 X VI, 12 X 2 wire RTD	2 X SPDT alarm output,
CN616A	Controller	6 X TC, 6 X 0-24 mA, 6 X mV, 6 X 2 wire RTD	2 X SPDT alarm output 6 X PWM Output
DP606-DC	Monitor	6 X TC, 6 X 0-24 mA, 6 X mV , 6 X 2 wire RTD, 6 X 3 wire RTD	2 X SPDT alarm output
DP612-DC	Monitor	12 X TC, 12 X 0-24 mA, 12 X VI, 12 X 2 wire RTD	2 X SPDT alarm output,
CN616A-DC	Controller	6 X TC, 6 X 0-24 mA, 6 X mV, 6 X 2 wire RTD	2 X SPDT alarm output 6 X PWM Output

VoC Results

- Worked with customers to define additional features and specifications
 - Second Relay
 - Reverse Battery protection
 - Power Fluctuation protection
 - DC Surge
 - Conducted Immunity (Part of CE)
 - 4/8kV ESD (Part of CE)
 - Short Circuit protection (input & output)
 - Expanded Temp Range
 - Modbus RTU - RS485/RS232 communications

Competitive Analysis

Omega Model	Imp Rank	DP606/612A	CN606/612	DPS3104/3107	CN101/102
Vendor	Rank	Omega	Contronautics	Kaif	Contronautics
Form Factor		1/4 DIN Panel Mnt	1/4 DIN Panel Mnt	1/8 DIN and Wall Mount	1/4 DIN Panel Mnt
Display Type	4	4 Digit 7 Seg LED + Function and Zone	4 Digit 7 Seg LED + Function and Zone	4 Digit 7 Segment LED + 3 Digit Alpha-Numeric + 7 indicator LEDES	4 Digit 7 Segment LED + 8 indicator LEDES
# of Channels	1	6/12	6/12	4/7	6
Input Types	3	Universal T/C, RTD, and Process V/I	T/C, RTD but Different Models for Each (Diff T/C's require just one model)	T/C, RTD, Thermistor, Process - diff models for each Type including T/C 's	T/C, RTD but different models for different T/C types and temp ranges
Interchannel Math	6	None	None	Rate, Min/Max, Differential	None
Sample Rate	5	300 mSec	250 mSec	500 mSec	4 Sec
T/C Accuracy	5	+/- 1C	+/- 4C	+/- 2C	+/- 4C
RTD Accuracy	5	+/- 1C	+/- 4C	+/- 2C	+/- 4C
Process Accuracy	5	+/- 1mV, +/- 10uA	Not Applicable	Not Specified	Not Applicable
Alarm Functions	6	High, Low, High/Low	High, Low	High, Low	Separate Models for High & Low
Alarm Outputs	4	2 3A Relays	1 5A Relay	4/7 1A Relays or 4/7 DC Pulse	1 5A Relay
Other Outputs	6	None	None	None	0 to 5V Analog
Communications	1	RS232/485 Modbus, 115,400 Baud Max	RS232 Loop, 4800 Baud Max, Proprietary ASCII	None	None
Input Power		120/240 Vac or 9-36Vdc	120/240 Vac, DC discontinued	120 Vac, 240 Vac, 9-15 Vdc	120/240 Vac
Isolation	3	1.5 - 3.2kV	10V	Not Specified	10V
Operating Temp	6	-20 to 70C	0 to 55C	Not Specified	0 to 57C
Compliance	3	CE, UL, cUL	CE (but still?)	None	None
PC Software	4	Not until May but will be better	Available Free but only up to Windows XP	None	None
Platform Age	4	New	20 Years +	30 Years +	30 Years +

Will expand to include controller model and representative competition outside of Omega for milestone 3