

Temperature/Process Controllers — continued

Multirange Digital, On/Off or PID Control 'E5AK/E5EK'



E5EK (988-698)
H = 96, W = 48, D = 114,
Panel Cut-out 45 92

E5AK (988-704)
H = 96, W = 96, D = 114
Panel Cut-out 92 92

- Modular controllers, allow customer flexibility
- High accuracy - 100ms sampling (for analogue input)
- Advanced tuning which includes fuzzy self-tuning
- Remote set-point, heat/cool control
- Front fascia sealed to **IP65/Nema 4**
- E5EK allows 1 output unit to be mounted and E5AK allows 3 units
- E5AK is also fitted with a 10 segment bar graph
- **UL & CSA** approved. **CE** marked

Supply voltage 100-240Vac 50/60Hz
Power consumption 988-698 (E5EK) 15VA, 988-704 (E5AK) 16VA
Input Thermocouple: K, J, T, E, L, U, N, R, S, B, W, PL11
Platinum resistance thermometer: JPt100, Pt100
Current input: 4-20mA, 0-20mA
Voltage input: 1-5V, 0-5V, 0-10V
Relay: 5A @ 250V ac (resistive)
Voltage output: NPN 40mA @ 12V dc
Linear current output: 4-20mA, 0-20mA
Linear voltage output: 0-10V dc
Operating temperature -10°C to 50°C

Mfrs. List No.	E5EK-AA2-500 = 988-698, E53-Q = 988-730, E53-V34 = 988-765	E5AK-AA2-500 = 988-704, E53-C3 = 988-741,	E53-R = 988-716, E53-C3D = 988-753,
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PLC169

Base Units	Order Code	1+	5+	10+	25+
Standard + Tmnl Cov	988-698				
Standard + Tmnl Cov	988-704				
Output Units					
Relay	988-716				
Pulse (NPN) 12Vdc	988-730				
Linear (4-20mA)	988-741				
Linear (0-20mA)	988-753				
Linear (0-10V)	988-765				

Up/Down Counting Meter - K3NR series



- An ideal interface for high-speed up/down counting and serial communication
- A wide selection of outputs: relays, transistor, BCD, linear, or communication
- Pre-scale function available, which displays in units of actual physical parameters (length, volume etc.)
- Wide range of output boards, including communications and linear boards.
- High accuracy and high visibility
- Nema4/IP66 front panel
- **UL and CSA** approved

Operating voltage 100 to 240 Vac 50/60 Hz
Operating voltage range 85% to 110% of rated voltage
Input Signal NO-voltage contact (30Hz. Max.)
Voltage Input (4.5 to 30v, 50Khz)
Open collector (50Hz)
Input Mode Up/Down (individual inputs or Phase difference inputs)
Max. Display Digits 5 digits (-19999 to 99999)
Display 7-segment LED
Prescale Functions Programming via front-panel key input (0.0001 to 99999
Decimal point can be set freely)
Other Functions Variable linear output (for models with linear outputs only)
Remote/local processing (available for communications output models only)
Counting value reset with front panel keys
Security Memory power failure
Control output Optional Boards
Relay contact output (5 outputs)
Transistors output (NPN and PNP open collector), BCD (NPN Open Collector)
Parallel BCD (NPN open collector) + transistor output (NPN Open Collector)
Linear output (4 to 20mA, 1 to 5V) + transistor output (NPN Open Collector)
Communication functions (RS-323C, RS485, RS-422)
Operating temperature -10°C to +55°C

PLC231/SI

Description	Mfrs. List No.	Order Code	1+	5+
Main Controller Unit Output Board	K3NR-NB1A	358-3958		
BCD (5 digit output NPN)	K31-B2	357-9890		
Relay Contact 3 outputs	K31-C1	357-9906		
Relay Contact 5 output	K31-C2	357-9918		
Linear 4 to 20mA	K31-L1	357-9943		
Linear 1 to 5 VDC	K31-L2	357-9955		
Linear 1 mv/10 digitals	K31-L3	357-9967		
Linear 0 to 5 VDC	K31-L7	357-9979		
Linear 0 to 10VDC	K31-L8	357-9980		
RS232C +5 Transistor Outputs	K31-FLK4	357-9920		
RS-485 +5 Transistor Outputs	K31-FLK5	357-4040		
RS-422 +5 Transistor Outputs	K31-FLK6	357-5070		

Weighing Meter - K3NV series



- High performance weighing meter with easy to read LED
- Load cell can be connected to a maximum of 20 mV/V
- Easily programmable through the front panel or via RS232C, RS485 or RS422
- Wide range of output boards, including communications and linear boards
- High accuracy and high visibility
- Load cell power supply of 100mA at 10VDC

- Nema4/IP66 front panel
- Conforms top EMC standards, **EN61010-1**
- **UL and CSA** approved

Operating voltage 100 to 240 Vac 50/60 Hz
Operating voltage range 85% to 110% of rated voltage
Input Signal DC Voltage (0-199.99mV)
A/D conversion method Double integral method
Sampling periods 50Hz 12.5 times/s; 60hz: 15 times/s (selectable)
Display 7 segments LED
Scaling Function Programmable with front-panel key inputs (-19999 to 99999)
The decimal point position can be freely set
Max Display Digits 5 digits (-19999 to 99999)
Other Functions Variable linear output range (for models with linear outputs only)
Remote/local processing (available for communications output models only)
Maximum/Minimum value data reset with front panel keys
Averaging processing functions
Comparative output pattern selection
Standby sequence
Security
Field calibration
Start-up compensation time (0.0 to 99.9s)
Control output Optional Boards
Relay contact output (5 outputs)
Transistors output (NPN and PNP open collector), BCD (NPN Open Collector)
Parallel BCD (NPN open collector) + transistor output (NPN Open Collector)
Linear output (4 to 20mA, 1 to 5V) + transistor output (NPN Open Collector)
Communication functions (RS-323C, RS485, RS-422)
Operating temperature -10°C to +55°C

FOR OUTPUT BOARD, PLEASE SEE PAGE 1202

PLC232/SI

Description	Mfrs. List No.	Order Code	1+	5+	10+
Main Controller Unit	K3NV-LC1A	357-9931			

Process Meter - K3NX series



- Advance intelligent signal processor accepts voltage/current input
- Programming with easy setup and calibration
- Multi-range function allows single Process Meter to cover a wide range of inputs
- Easily programmable through the front panel or via RS232C, RS485 or RS422

- Wide range of output Boards, including communications and linear boards
- High accuracy and high visibility
- Sensor power supply of 80mA at 12VDC
- Nema4/IP66 front panel
- Conforms top EMC standards, **EN61010-1**
- **UL and CSA** approved

Operating voltage 100 to 240 Vac 50/60 Hz
Operating voltage range 85% to 110% of rated voltage
Input Signal DC voltage/current, AC voltage/current
DC voltage 1-5v, +/-199.99mV, +/-199.99V, +/-199.99v
DC current 4-20mA, +/-199.99mA, +/-19.999mA, +/-1.9999mA
AC Voltage 0-1.9999v, 0-19.999v, 0-199.99v, 0-400v
AC Current 0-10A, 0-1.9999, 0-19.999mA, 0-19.999mA
A/D conversion method Double integral method
Sampling periods 50Hz 12.5 times/s; 60hz: 15 times/s (selectable)
Display 7 segments LED
Scaling Function Programmable with front-panel key inputs (-19999 to 99999)
The decimal point position can be freely set
Max Display Digits 5 digits (-19999 to 99999)