

## **Product Brochure**

# PMA KS 98-2

# **Multi-function Controller**

Configure CONTR (Universal controller - blocknumber: 101) × Name Description Value on Range Signals **OK** A/H Autohand 0 oll Wint Cancel Set point (Weff) 0.000 0.000...100.000 Config tions 65/A2 **CFunc** Control mode 9: Cont Default C-type Controller type 0. Standard SPlunc Set-point functions 0: Set-point C-mode Operating sense 0: Inverse CDill Differentiation 0.Xw CFal Behavior with sensor failure 1: Ymin 00.1 COVC Output limiting functions 0.0# WTrac Tracking of internal set-point 0.0# Ratio Function of ratio controller 0: Typ 1 XDp Digits behind decimal point for process vak. 0 Disp 0.3 Contents of bargraph line 0Y OMode Self-tuning mode 0: Standard OCond Process line-out mode 0. grad=0 Xn0 Span start 0.000 -29999.0...100.00 Xn100 Span end 100,000 SFac Factor for stoichiometric ratio 1.000 Parameter W Block Block setp. switch 0. Block WD Lower set-point limit (Well) 0.000 W100 Upper set-point limit (Welf) W2 Additional set-point Grw+ 101 Loop 2 Set-point gradient plus Grw Set-point gradient minus PMA KS98-2 847 P2 00:02 Chamber Temp 150.0 C 0.000 400.00 0.000 23.0 100.00 rH. % F Esc

#### Automation made easy

PMA's multi-function instrument KS 98-2 combines PID control, process monitoring, sequence control, data logging and alarms.



• Modular automation system in a 1/4-DIN (96 x 96mm) format

- · Measure, control, calculate, and record
- · Process visualization, operation, alarm and alerts
- · Comprehensive application-oriented functionality
- · Graphical programming utility and simulator
- 3.5 " color touch-screen display
- · USB interface on front fascia
- · Expandable with modular inputs and outputs
- Ethernet and common fieldbuses

Function blocks from an extensive library can be used to build an application by easily selecting and connecting the blocks graphically using the "ET/KS98"-utility. This method is ideal for creating tailored control, including user interface pages with minimal effort. As a complete solution in a single unit, the KS 98-2 multi-function instrument helps to reduce programming, installation cost and control cabinet space.

#### Hardware flexibility

- Unprecedented number of I/O in a 1/4-DIN device
- Fully adaptable with up to 12 internal I/O-modules
- Almost every 1/4 DIN Controller can be replaced/upgraded

KS 98-2 offers comprehensive modular input and output options to adapt the unit to the application needs. The unit is optimized to handle the precise measurements required in the process industry via I/O modules supporting a variety of sensor types and also have galvanic isolation. Additional signal conditioners and isolating amplifiers are not necessary in most applications, saving cost and less installation time.

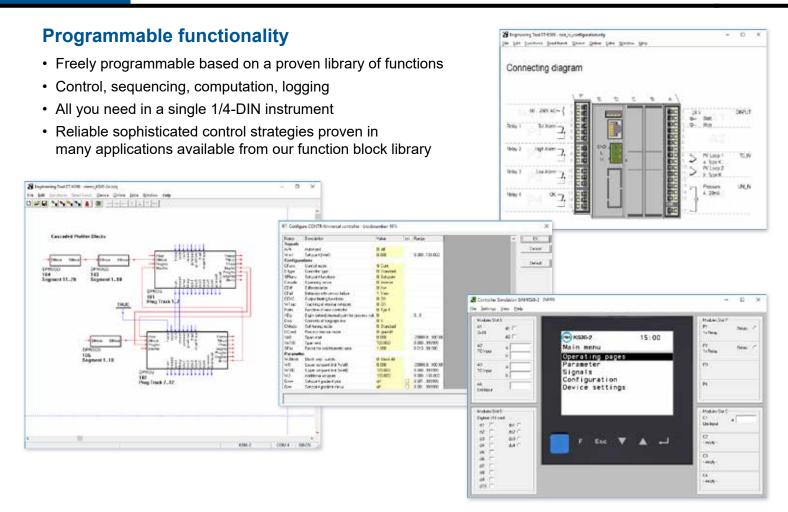


#### Easy creation of applications for simple and complex tasks

To program the multi-function instrument KS 98-2 for a specific application, the easy to use graphical engineering utility ET/KS98 is available. A variety of proven function blocks for control, sequencing and calculations can be easily selected and combined as needed for the application. A computer simulation helps to validate and improve the user program in the office before commissioning for live factory equipment.

By selecting functions from the library, the corresponding user screens for operation and setup are added to the user program automatically. Specific overview pages can be built and added to the application.

## **Features**



#### **Customizable appearance**

- · Splash screen
- Customer logo
- · Multiple color sets with
  - foreground colors
  - background colors
  - colors of important values



Ideal for new designs and to provide cost effective functional upgrades for most <sup>1</sup>/<sub>4</sub>-DIN controllers installed in the field

#### Easy to maintain

- Via front accessible USB
- Via network access
- Using a USB flash drive



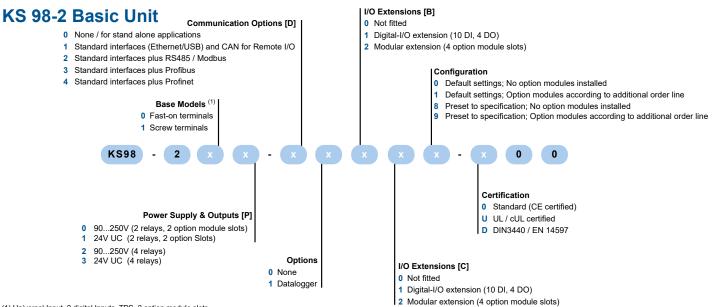
## **Applications**

Esc

- Multi loop control
- Sophisticated process control
- Profile control
- Complete automation of small applications

# Specifications

Display	320x240 Pixel Color TFT Display		
Operation	Touch with dedicated virtual buttons below the viewing area		
Mechanics	¼-DIN panel mount Mounting depth 118mm		
IP rating	IP65 (Front)		
Inputs	Universal analog input and 2 digital inputs Modular expandable for various types of input signals (TC, RTD, mA, mV/V, 2-wire transmitters, zirconia probes, 24V logic) (Unit can support up to 12 dual channel I/O extension modules)		
Outputs	2 or 4 Relays Modular expandable with various types of output signals (mA, V, SSR, 24V logic) (Unit can support up to 12 dual channel I/O extension modules)		
Communication	Ethernet, USB, CAN. Optional modules for RS485, Profibus, Profinet		
Data Storage	SD card		
Function Library and user program	Logic, Math, Control, Profiling, Alarming, Recording, … User program can combine up to 2000 function blocks and manage up to 30 control loops		



(1) Universal Input, 2 digital Inputs, TPS, 2 option module slots

#### **Factory installed Option Modules**

Into KS 98-2 in order line above

4000 HIGH REAL	The second is a set of the set of the second is a second is a set of the second is a second is second is a second is a second is a second is second is a
A98 - F - (	
	Modules and Positions
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 Not fitted
	U U U U U U U U U U U U U U Universal input
	R R R R R R R R R R R R Dual Pt100/1000, Ni100/1000, resistance
	T T T T T T T T T T T Dual Thermocouple, mV, 0/420mA

Dual -50...1500mV (eg. Zirconia probe), 0...10V 0/4...20mA Input with transmitter power supply

Please indicate for all option module slots (12 digits)

Dual DC drive output for SSR

Dual bipolar Linear Out (-10V...10V)

Dual linear out (mA/V DC)

Dual digital I/O

v v

PPPP

BBBB BBBB

DDDD DDDD

LLLL BBBB

DD

#### Separate module orders

A98 - M -	U	
	Avail	able modules
	U	Universal input
	R	Dual Pt100/1000, Ni100/1000, resistance
	т	Dual Thermocouple, mV, 0/420mA
	v	Dual -501500mV (eg. Zirconia probe), 010V
	Р	0/420mA Input with transmitter power supply
	Α	Dual DC drive output for SSR
	L	Dual linear out (mA/V DC)
	в	Dual bipolar Linear Out (-10V10V)
	D	Dual digital I/O

## Contact



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