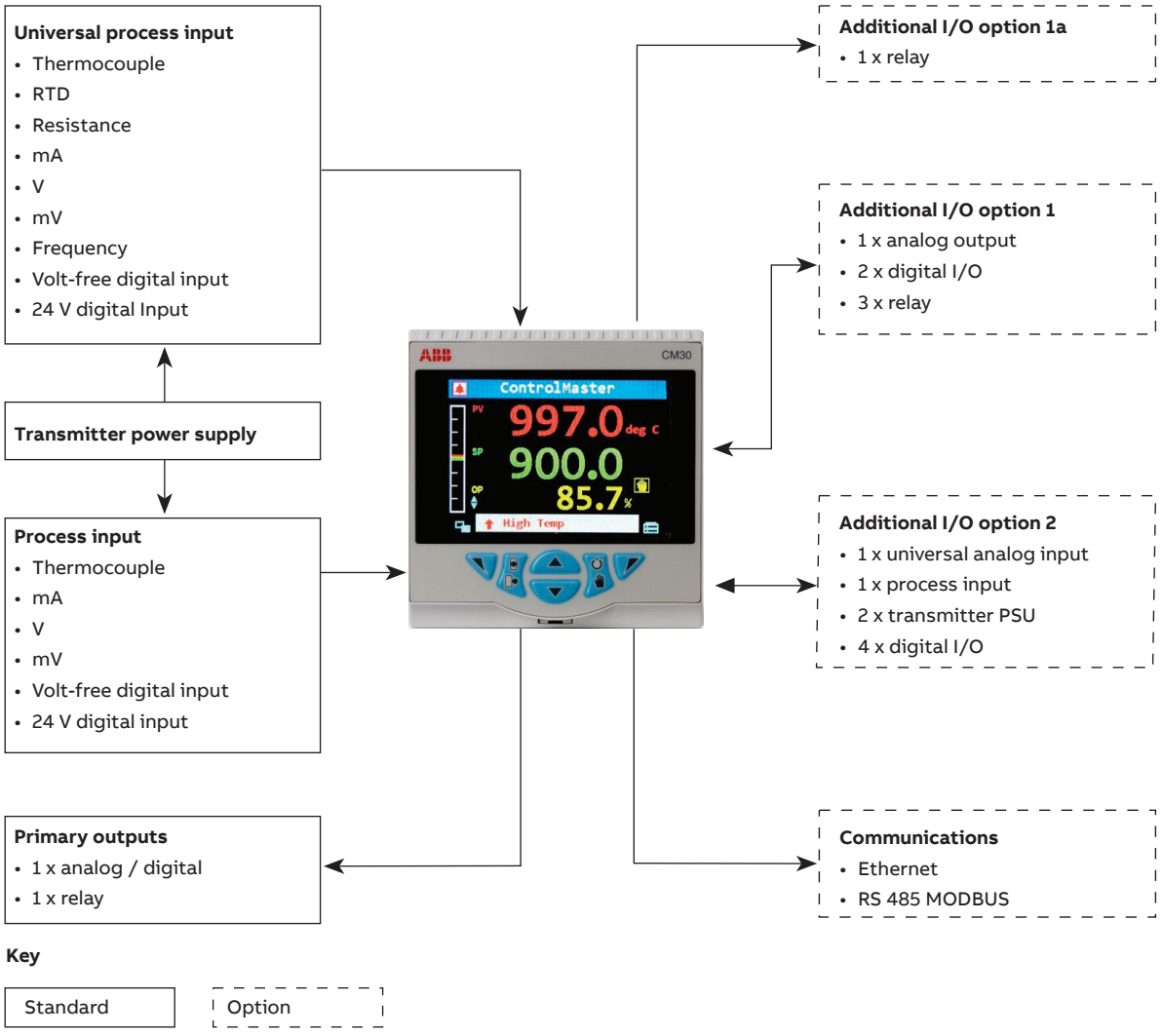
Overview

The ControlMaster CM30 is a highly versatile, ¼ DIN, universal PID process controller. Detailed process information is presented clearly on the CM30's full-color TFT display and an intuitive operator interface simplifies configuration and operation.

Highly scalable in both hardware and software functionality, a CM30 can be specified easily to meet the needs of virtually any process control application – simple or advanced. Powerful control functions such as adaptive control, math, logic and totalization provide problem-solving flexibility and make the CM30 suitable for a wide range of process applications.

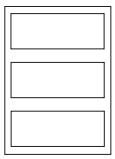
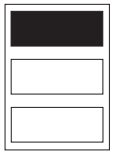
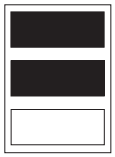
Fully configurable via the easy-to-navigate front panel menus or PC configuration software, the CM30 can be commissioned rapidly and then tuned via the advanced autotune capability.

MODBUS and Ethernet communication options ensure easy integration into a control system.



Highly scalable

The CM30 is highly scalable in terms of both hardware and software, to fulfill the demands of the simplest to the most complex process. The basic CM30 meets the needs of a simple control loop. Templates and control functionality can be increased by adding function keys to the basic model. Each function key added provides additional templates and functionality as shown in Figure 1, while retaining previous templates and functionality. For I/O builds, see 'Ordering information' on page 21.

Level	Function keys	Template	Functionality
Base	0 	Single loop Single loop with remote setpoint	Process alarms Basic setpoint switching Basic control • Analog PID • On / Off or time proportioning • Auto tune • Split output control
Standard	1 	Auto / Manual station low signal selection Auto / Manual station digital signal selection * Analog backup station low signal selection Analog backup station digital signal selection * Single indicator / manual loader Dual indicator / manual loader	Standard setpoint switching Standard control • Gain scheduling • Motorized valve control † Output tracking Logic Math Custom linearizers Delay timers Real time alarms Standard profile** Bank control Template customization
Extended	2 	Single loop with feedforward Single loop with feedforward and remote setpoint ‡ Cascade Cascade with remote setpoint ‡ Cascade with feedforward ‡ Ratio controller (internal ratio) Ratio controller (external ratio) ‡ Ratio station (internal ratio) Ratio station (external ratio) ‡	Totalization Advanced profile** Advanced control • Feed forward • Predictive control • Adaptive control Display customization Historical trending
Dual loop	3 	Dual loop – local / local ‡ Dual loop – remote / local ‡ Dual loop – remote / remote ‡	

Recommended I/O build:
* Basic + option board 1
† Basic + option board 1a
‡ Basic + option boards 1 and 2

**Not available if Dual loop template selected

Figure 1 Overview of template options