



## Semaphore Kingfisher CP-30 Processor Module



### Simple upgrade path

The CP-30 allows upgrading of existing Kingfisher Series II installations with the latest processing and software technology. The Series II processor can simply be unplugged and replaced with the CP-30. This allows configuration and programming to be performed using the Toolbox Plus+ environment.

### Redundancy

For users who demand reduced risk of system failures, the CP-30 supports redundant processor modules, in a hot-standby configuration, as well as redundant power supplies and communication modules.

### For Kingfisher Plus+ and Series II RTU products

To meet the needs of today's most intensive SCADA system applications, the Kingfisher™ CP-30 processor module employs a powerful 32-bit processor, ample memory, and integral communications with Ethernet.

The CP-30 also supports an open, IEC 61131-3-compliant programming environment and is the first RTU processor to support ISaGRAF 5 with IEC 61499, the distributed processing and interoperability extension to IEC 61131-3.

The CP-30 is intended for applications in the broadcast/ telecom, oil & gas, power, transportation, and water/wastewater industries that require the highest performance and latest programming capabilities.

In addition to supporting new applications, the CP-30 can also be used to upgrade existing Kingfisher Series II installations to 32-bit/IEC 61131-3-compliant technology.

### High-performance processing

The 166 MHz, 32-bit ARM9 processor is designed to meet the performance requirements of any SCADA application. A memory model that includes 32 MB SDRAM and 16 MB Flash ensures there is plenty of storage space for alarms, events, live data, historical archives, and other files.

### Advanced I/O functionality

The CP-30 is compatible with Kingfisher's intelligent I/O modules, which provide advanced functionality such as high-speed scanning; sequence-of-events (SOE) monitoring at 1 ms; 10 kHz input counting; pulse generation; and configurable, fail-safe output settings.

### Versatile communications

While onboard 10/100 Ethernet is a standard feature, the CP-30 also supports a broad range of integrated communication option cards, including GSM, PSTN, satellite, UHF radio, and more. The CP-30 additionally provides a broad array of communications protocols, which allows a Kingfisher RTU to drop into most any SCADA system.

### Open programming environment

Semaphore's Toolbox Plus+ integrated operating environment combines configuration, program development, and maintenance in one simple-to-use package.

Systems integrators and end users alike can view, edit, and diagnose a Kingfisher RTU solution with a highly intuitive, Outlook-style user interface.

Toolbox Plus+ eliminates the need to open — and switch between — multiple software packages, or engage in complicated programming.

Toolbox Plus+ embeds the ISaGRAF IEC-61131-3-compliant environment and supports all five of the languages it offers.

In addition, the Kingfisher library of preprogrammed function blocks, which includes operations such as AGA flow calculations, simplifies applications development and makes it easy to add new capabilities to a Kingfisher RTU solution.

## KINGFISHER CP-30 PROCESSOR MODULE SPECIFICATIONS

Processor	Cirrus ARM9 EP9301 processor
Word size	32-bit data bus
Clock speed	166 MHz maximum
Flash upgradable BIOS	Yes
Flash memory	16 MB
SDRAM	32 MB
Real-time clock	Yes
Watchdog timer	Yes
Status indication	Yes
Battery life — module unpowered	10 years
Maximum I/O points	1024
Communication ports	1-3 (1 fixed, 2 option ports)
Comm port 1 (Ethernet)	10 or 100 Mbps autonegotiation
Comm ports 2 and 3 (optional)	Supports Kingfisher option cards
I/O bus data rate	250 Kbps
Communications bus data rate	250 Kbps
CP-30 is compatible with most existing I/O modules, communication cards, and power supplies. Please contact your local Kingfisher sales representative for latest compatibility information.	
Programming port	10/100 Ethernet port. (Comm port 1)
Programming & diagnostics software	Toolbox Plus+™
RTU address range	1 – 65520 (when using Kingfisher Plus+ protocol)
Communications protocol	Kingfisher, Kingfisher Plus+, Modbus (RTU, ASCII, & TCP), DNP3, SNMP
Analog block processing	Yes
PID block processing	Yes
Logic processing	IEC 61131 languages: Ladder logic Structured text Function block diagram Sequential function chart Instruction list ISaGRAF flowchart
Operating temperature	-20° to 70° C
Storage temperature	-40° to 85° C
Relative humidity	5 – 95% noncondensing

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