



## INPUTS & OUTPUTS

|                          |                                                           |
|--------------------------|-----------------------------------------------------------|
| Maximum I/O points       | 1008                                                      |
| Backplanes               | Up to 4 x 2, 4, 6 or 12 slots<br>plus 4 x 4 slots per RTU |
| I/O configuration        | Automatic/manual                                          |
| Backplane sizes          | 2 / 4 / 6 / 12 slots                                      |
| Removable I/O connectors | Yes, with locking screw for security                      |
| Digital modules          | Max. 16 inputs or 16 outputs/module                       |
| Analog modules           | Max. 8 inputs or 4 outputs/module                         |

## PROCESS CONTROL UNIT

|                                   | CP-12                                       | CP-35                                                                                                           |
|-----------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| CPU                               | 40MHz x86                                   | 1GHz ARM9                                                                                                       |
| Memory                            | 512kB                                       | 256MB<br>(512MB ECC)                                                                                            |
| FLASH RAM                         | 512kB                                       | 2GB eMMC<br>(expandable)                                                                                        |
| micro SD Card                     | No                                          | up to 32GB                                                                                                      |
| Clone System to SD Card           | No                                          | Automatic<br>Cloning                                                                                            |
| Battery Backup                    | >7 years                                    | >20 years                                                                                                       |
| Event logging                     | 20,000                                      | 100,000 events<br>(up to 10 DNP3<br>masters)                                                                    |
| Configuration Software            | Toolbox32                                   | ToolboxPlus                                                                                                     |
| Programming Languages             | Ladder Logic                                | IEC61131-3,<br>All 5 languages,<br>with user defined<br>function blocks                                         |
| Send config via serial cable      | Yes                                         | Yes                                                                                                             |
| Send config via Ethernet          | Yes                                         | Yes                                                                                                             |
| Send config remotely              | Yes                                         | Yes                                                                                                             |
| Load config from USB Stick        | No                                          | Yes                                                                                                             |
| Update Firmware from USB          | No                                          | Yes                                                                                                             |
| Save Diagnostics to USB           | No                                          | Yes                                                                                                             |
| Password Protected Menu<br>System | No                                          | On CPU via OLED<br>Display                                                                                      |
| Configs stored in FLASH           | 1                                           | 4 + Factory default                                                                                             |
| Firmware stored in FLASH          | 1                                           | 4 + Factory default                                                                                             |
| Security                          | Port security                               | Role based access,<br>IP white listing,<br>secure webserver,<br>selective lockdown<br>of features, Audit<br>log |
| Protocols                         | Available as<br>drivers at no<br>extra cost | Available with<br>standard firmware<br>at no extra cost                                                         |

## COMMUNICATIONS SUPPORTED

|                             |                                                                                                                                                    |                |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Total Ports / RTU           | CP-12: up to 16                                                                                                                                    | CP-35: over 20 |
| Master/slave                | Yes                                                                                                                                                |                |
| Peer-to-peer                | Yes                                                                                                                                                |                |
| Redundant/Fallback pathways | Yes                                                                                                                                                |                |
| Protocols                   | Serial and IP versions of Modbus,<br>DNP3Sav5 and Kingfisher; IEC60870-5-101<br>& 104, SNMP, HTTP, HTTPS and SSH<br>with more available on request |                |

## OPTION CARDS

|                        |                                                                                                                                       |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| CP-12 and MC-12        | 1 x RS232/RS485 serial<br>port, 2 x option card slots                                                                                 |
| CP-35 and MC-35        | 2 x RS232/RS485 serial<br>ports, 1 x USB,<br>1 x Ethernet,<br>2 x option card slots                                                   |
| MC-31                  | 1 x Ethernet port,<br>2 x option card slots                                                                                           |
| Available option cards | A4 - Ethernet fibre<br>T4 - Copper Ethernet<br>H - HART interface<br>I - Serial copper<br>I2 - Dual serial copper<br>L - Private line |

## DIAGNOSTICS

|                            |                           |
|----------------------------|---------------------------|
| Pre-programmed             | Yes                       |
| I/O modules                | LEDs (and via CP-35 OLED) |
| CPU modules                | CP12: LED CP-35: OLED     |
| Power supply modules       | LEDs (and via CP-35 OLED) |
| Report via network         | Yes                       |
| Software                   | Yes                       |
| Communications<br>analyser | Yes                       |
| Service Report             | Yes                       |

## POWER

|                         |                                   |
|-------------------------|-----------------------------------|
| AC supply               | 100 to 240 VAC                    |
| DC supply               | 20 to 60 VDC<br>or 96 to 300 VDC  |
| Solar supply            | 10.5-16.0 VDC                     |
| Power down modes        | Yes                               |
| Battery backup          | Yes                               |
| Battery size            | Various                           |
| Battery charging option | Yes, with Thermal<br>compensation |

## ENVIRONMENTAL

|                            |                                                         |
|----------------------------|---------------------------------------------------------|
| Operational<br>temperature | -40° to 85°C<br>(see hardware manual<br>for exceptions) |
| Storage temperature        | -40° to 85°C                                            |
| Humidity                   | 5% to 98% RH<br>non-condensing                          |

## REDUNDANCY LEVELS

|                     |   |
|---------------------|---|
| CPU's/RTU           | 2 |
| Power supplies/rack | 2 |