



Weatherford®

Production Optimization

Automated System Accessories

Weatherford's automated systems accessory components are used to expand input/output (I/O) capacity, meet power requirements, provide communications connectivity, and supply the instrumentation interface for automation systems in remote oilfield operations. Built to withstand harsh environments, all automated systems accessories are designed for functional flexibility with compatible mounting and hookup as part of Weatherford CEO™ RTU systems.

Weatherford's extensive footprint of global supply sites ensures that any standard automated system accessory can be delivered when it is needed. If a customized accessory is required, the order is handled expediently to minimize downtime.





Automated System Accessories

BC-1 AC Battery Charger Power Supply works with the built-in charging regulator on the CEO D-3000, D-2000, and K-500 RTUs to provide complete and reliable battery charging.

Features

- Configurable for 120 or 240 VAC source
- Fuse-protected (1 A for 120 VAC, 0.5 A for 240 VAC)
- Open-circuit voltage: 30 VDC
- Output current limited to 3 ADC



Battery Charging Regulator is designed to properly charge the connected battery with temperature compensated regulation of the solar panel output. To prevent a battery from becoming deeply discharged and damaged, a low voltage load disconnect feature is built-in.

Features

- 12 VDC nominal operation
- Maximum operating voltage: 17.5 VDC
- Maximum charging current: 5 ADC
- Solid state overcurrent protection with automatic reset: Minimum trip current is 5 ADC at 23°C, 3.86 ADC at 50°C
- Maximum solar panel size: 100 Watts
- Temperature compensated range: -40 to 125°F
- Low voltage load disconnect at 11.5 VDC
- Pluggable terminals for solar panel, battery, and load connections
- Can be mounted directly on the CEO K-500 RTU board
- Compatible with the BC-1 AC battery charger supply
- Optional, aluminum mounting panel





Automated System Accessories

DC-1 Instrument Power Supply supplies (4 to 20 mA) analog process transmitters.

Features

- DC-to-DC converter design
- 12 VDC input nominal (11 to 15 VDC)
- 20 VDC output
- 350 mA DC maximum operating current
- 0.5 A with overcurrent-protected, automatic reset



RS-232 to RS-485 Converter translates RS-232 signals to RS-485 signals and vice versa.

Features

- Built-in surge and transient protection
- 12 VDC input (minimum = 11 VDC, maximum = 15 VDC)
- Two-wire communications
- Pluggable RS-485 and power terminals
- Data-triggered communications
- Can be port-powered through the DTR pin (CEO™ D-3000 and D-2000 RTUs)
- DB-9 male RS-232 connector
- Rugged metal enclosure





Automated System Accessories

RS-232 Port Sharing Board allows RS-232 data sharing among multiple devices. Typically, data from a single radio or modem is shared with multiple RTUs or other communication devices.

Features

- One master port
- Five slave ports
- DB-9 female RS-232 connectors
- Jumper selection for null modem connection (cross-connect Tx to Rx pins on master port)
- Aluminum mounting back panel available





Automated System Accessories

I/O CIM Module provides remote I/O capability to an existing RTU system, using only a four-wire RS-485 connection.

Features

- 11.5 to 16.0 VDC
- < 5 mADC at 13.6 VDC
- -40° to 158°F (-40° to +70°C)
- 0 to 95% relative humidity, non-condensing
- Compression-type terminals
- Two digital inputs (one may be used as a high-speed accumulator input with a pluggable terminal, and one may be used for contact interface)
- Three digital outputs with optional plug-in board, which includes two Form C single-pole/double-throw (SPDT) relays (rating 10 A 125/250 VAC), one open collector transistor (output 1.0 ADC at 60 VDC), and pluggable terminals
- Two analog inputs (1 to 5 VDC or 4 to 20 mA DC) with 12-bit resolution, A/D conversion, and gas tube surge protection
- One analog output (4 to 20 mADC or 1 to 5 VDC) with 12-bit resolution

Pulse Amplifier Board amplifies low voltage signals from a turbine meter magnetic pickup or similar device to voltage levels required for RTU accumulator input.

Features

- 11.5 to 16 VDC
- < 2 mA DC @ 13.6 VDC
- Directly pluggable into an accumulator input
- Powered through the accumulator input connector
- Pulse signal conditioning
- Open collector output





Automated System Accessories

Pulse Amplifier Assembly amplifies low-voltage signals from a turbine meter magnetic pickup or similar device to voltage levels required for the RTU accumulator input.

Features

- 11.5 to 16.0 VDC
- < than 2 mA DC at 13.6 VDC
- Pulse signal conditioning
- Selectable open collector output or voltage pulse output
- Mountable away from the RTU
- Three wire hookup



Pulse Amplifier CIM board amplifies low-voltage signals from a turbine meter magnetic pickup (or similar device and interface) to the RTU via an RS-485 multi-drop communications connection.

Features

- 11.5 to 16.0 VDC
- < 4 mA DC at 13.6 VDC
- RS-485 communications interface, four-wire: two-signal, two-power with pluggable connector
- Pulse signal conditioning
- CIM ASCII protocol or Modbus RTU protocol
- Mountable away from the RTU

