APCS (Analog Process Control Services) is Australia's leading manufacturer of high quality electronics for process measurement. These highly versatile products can be custom configured for specialized applications including custom linearization, thermocouple conversion, range splitting, LVDT, vibration, pH, ramping, A/D, ΔP, and more.

Absolute Process Instruments now provides the widest range of signal conditioning products available anywhere! For product data sheets and ordering options, see www.apcs.com or call us at 800-942-0315 for a quotation.

USC 701 UNIVERSAL SIGNAL CONDITIONER

Measurement and control functions in a single instrument
User programmable for most signal conditioning applications including PID control

Programmable I/O
Inputs: 2 analog, 2 pulse, sensor excitation
Outputs: 1 analog or pulse, 2 relays, MODBUS
Adjustable dead band & time delays
Math, logic, custom linearization, four 101 point tables

BSC 133 BIPOLAR SIGNAL CONVERTER

Converts uni- & bipolar input signals to a bi-polar DC signal. Load independent bi-polar output.

Input: AC/DC current & volts, resistance, RTD, thermocouple, pH/ORP, frequency, pulse, LVDT and millivolts. Sensor excitation.
High power output & dither options for hydraulic applications
Adder or subtracter options
Optional output ramp, external ratio peak hold, track & hold
Front adjustments for span and zero

ADC 182 ANALOG TO DIGITAL CONVERTER

Convert analog process signals to 8-bit digital signals. Common applications include interfaces to PLCs and PCs.

Input: AC or DC current and voltage, RTDs, thermocouples, resistance, potentiometer and frequency signals
Output: 8-bit PNP or NPN open collector, TTL or CMOS
Power isolation 2 kV RMS, no Input/Output isolation
Front-mounted 9-pin female 'D' connector for output
Front adjustments for span and zero

SSP 235 SIGNAL SPLITTER

Produces two DC output signals from one input signal. Output signals can be different from each other and from input.

Input: 4-20 mA, mV, bipolar, thermocouple, RTD, pulse, resistance, AC current or AC voltage. Sensor excitation.
2000 Vrms isolation
Field configurable by internal links with selectable response time
Front adjustments for span and zero
Range splitting versions

MPA 166 MULTIPOINT DIGITAL-ANALOG CONV.

Sums up to 16 digital inputs and converts the result to a DC signal. All inputs have an equal weighting, option for alternate input weighting.

DC input signals can be either voltage or current
Auxiliary available on input connector to drive open collector transistors or any contact type device
Options for non-standard trigger levels, hysteresis and bandwidth

RAF 185 RAMP FUNCTION MODULE

Convert period ramp, pulse accumulation or quadrature to DC signal. Microprocessor-based. Use for motor start-up, speed control, process signal ramping, pulse accumulation, quadrature.

Contact or external source pulse input. Sensor excitation.
Time base (period) adjustments. Master reset.
Output up to 18 VDC or 50 mADC
2000 Vrms isolation

APC 153 ANALOG TO PULSE CONVERTER

Converts an analog input signal to a pulse signal. Signal conversion for use with PLC & SCADA systems

Input includes AC/DC current & volts, resistance, RTD (Pt100), thermocouple, pH/ORP and pulse
Transistor (pulse) output up to 10k Hz
2000 Vrms isolation
Front adjustments for span and zero

DI 739 ISOLATOR, DUAL CHANNEL

Two fully independent isolator channels. Factory configured input to customer requirements.

Jumper configurable outputs for common process signals
Front adjustments for span and zero for each channel
Optional alarm on channel 2
Isolation is 2 kVrms between all 6 ports
Can be configured for signal splitting or range splitting

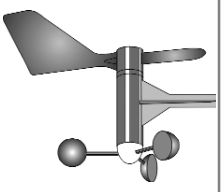
APC 253 ANALOG TO PULSE CONVERTER

Converts an analog input signal to a pulse signal. Signal conversion for use with PLC & SCADA systems

Input include AC/DC current & volts, resistance, RTD (Pt100), thermocouple, pH/ORP and pulse
Transistor (pulse) output up to 10k Hz
2000Vrms isolation
Front adjustments for span and zero
Power supply up to 63 VDC

MU 7911 WIND SPEED/DIRECTION SENSOR

Measure wind speed and direction. Robust low cost design for industrial applications. Use for low cost weather stations and weather related control such as building/greenhouse blinds.



Horizontal arm with pipe mounting bracket and 12m cable
Low friction ball bearings for long life

ATP 168 ANALOG TO POTENTIOMETER CONVERTER

Convert most process signals to a potentiometer output. Replace mechanical pots used for control of existing machinery or for automatic control of gain or offset in instrumentation.

Switched resistors with 1 in 255 (8 bit) resolution
3-way isolation up to 2000 Vrms
Connect as a 3-wire pot or 2-wire variable resistor

QLPI 731 ISOLATOR, QUAD LOOP POWERED

Four channel loop powered isolator. Standard output is 4-20 mA.

Double surge protection to prevent failure due to DC switched inductive load spikes
Selectable process inputs, range changing via internal solder pads
Wide supply range of 7.5 to 38 VDC
Internal zero and span trim adjustments
Front mounted LEDs verify the function of each channel

ATR 167 ANALOG TO RESISTANCE CONVERTER

Converts process signals into a simulated resistance output. Convert a thermocouple to RTD signal to match dissimilar existing equipment. Use for automatic gain control.

True analog conversion providing extremely high resolution
Front adjustments for span and zero
3-way isolation up to 2000 Vrms between input signal, resistance output and power supply

HVI 237 ISOLATOR, 5 KV

Fast response high voltage signal isolator. Used for high voltage electric machinery such as trains and mining equipment.

Input: selectable mV ranges, optional ranges to 1000 VDC, DC current inputs via shunt
Optional 250 µsec response time to capture spikes and fast surges
Dual outputs

APCS Specialty Signal Conditioners

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APCS

VPR 271 VOLTAGE PRESENCE RELAY

Directly monitor 3-phase voltage up to 700 V phase to phase. Neutral must be connected for proper operation. Signal powered by incoming AC-voltage. LED indication of each phase.

- 2 relay outputs indicating loss of 3 phases loss of 1 phase
- Relay 1 energized with any phase present
- Relay 1 and 2 are energized with all three phases present
- Relay 2 de-energizes if any one of the three phases fail
- Relay 1 and 2 are de-energized if all three phases fail

HVR 272 ALARM RELAY, HIGH VOLTAGE

High voltage input alarm relay. Use for over/under voltage monitoring.

- Directly monitor voltage up to 700 V, 40 to 1000 Hz
- Powered from the incoming AC voltage
- 2.5 Kv Isolation
- Two 8A rated relay contact outputs with one trip point adjustment.

QAU 775 FOUR RELAY QUAD ALARM

Four relay output alarm with adjustable set-points.

- Input: AC & DC current/voltage, pulse, potentiometer, temperature, chemical sensors and strain-gauge. Sensor excitation.
- Optional min/max selector or 4-20mA adder/subtracter, retransmission
- Contacts rated at 10A/250 VAC resistive, optional TTL
- Front setpoint and deadband adjustments
- Window alarm option. Reverse action option. LED alarm indicators

TRA 173 ALARM, TRIPLE

Triple relay output alarm with adjustable set-points. Common applications include process alarms.

- Input up to 2 kVDC and 10 ADC
- Sensor excitation
- Contacts rated at 10A/250VAC
- Front setpoint adjustments
- Trip status is indicated by LED

PHT 129 PH / REDOX TRANSMITTER

Converts pH/ORP to DC signal. Wide range of pH and ORP probe input. Wastewater and water treatment monitoring, contamination detection, salinity monitoring.

- High input impedance
- Output up to 18 VDC or 50 mADC
- 2000 Vrms isolation
- Temperature compensation optional
- Front adjustments for span and zero

CDT 128 CONDUCTIVITY TRANSMITTER

Convert conductivity to a DC signal. Any type of conductivity input. Interface to conductivity cells, detect contamination, salinity monitoring.

- Sensor excitation
- Temperature compensation option
- Output up to 18 VDC or 50 mADC
- 2000Vrms isolation
- Front adjustments for span and zero

VBT144 VIBRATION TRANSMITTER

Converts vibration to a DC signal. Monitoring of vibrating feeders, protection of vibrating machinery.

- Input: field configurable for mV input for swing-coil velocity transducers, piezoelectric accelerometer or eddy current displacement probe
- Zero to peak, peak to peak or RMS average normalized
- Output up to 18Vdc or 50mAdc
- Raw sensor signal output on front BNC connection
- Front adjustments for span and zero

PLR 255, PLR 555 (IP65) PULSE REPEATER
PLR 257 PULSE SPLITTER

Rescales or repeats pulse signals, optional frequency division. Pulse conditioning and stretching, pulse conversion.

- Input: external pulse or any type of speed sensor up to 10 kHz. Sensor excitation
- Voltage/PNP/NPN outputs
- 2000 Vrms isolation
- Front adjustments for pulse width and trigger level
- Powered by 8-60 VDC

PM 277 DIFFERENTIAL PRESSURE MONITOR

Converts differential air pressure to an analog output and provides a relay contact. Robust piezoresistive silicon pressure sensor for high accuracy and long life. Ventilation system monitoring, pressure monitoring & control in clean rooms, control of process air systems.

- Pressure ranges from 0.3 psi to 30 psi (2 kPa to 200 kPa)
- Optional open collector output instead of relay contact
- Low range AC or DC voltage power supplies

RTDT 225 TEMPERATURE TRANSMITTER, RTD

Converts RTD (Pt100) temperature sensors to a Linearized DC signal.

- Lead resistance compensation
- Front adjustments for span and zero
- 2000 Vrms isolation
- 2-wire or 3-wire output loop power supplies
- Options for downscale burnout, differential input, and 2 input average

TCT 226 TEMPERATURE TRANSMITTER, THERMOCOUPLE

Converts a thermocouple temperature input to a DC signal

- Input: J, K, T, E, R, S, N thermocouples
- 2-wire or 3-wire output loop power supplies
- 2000 Vrms isolation
- Cold junction compensation
- Front adjustments for span and zero
- Optional upscale or downscale burn-out

LVDT 149 LVDT TRANSMITTER

Converts LVDT output to DC a signal. Interface to LVDT (Linearly Variable Differential Transformer) for position monitoring or measuring applications.

- Any type of LVDT input
- Output up to 18 VDC or 50 mADC
- Output ramp option
- Front adjustments for span and zero

STM 156 STALL MONITOR

Frequency alarm with an adjustable trip point. Stall or under speed monitor of conveyor belt or slowly rotating shaft.

- Input: external pulse and any type of speed sensor
- Front adjustments for trip speed and start-up delay
- Relay contact output
- Under speed alarm

VBT 244 VIBRATION TRANSMITTER

Converts vibration to a DC signal. Monitoring of vibrating feeders, protection of vibrating machinery, measuring building movement.

- Input: field configurable links for mV input from swing-coil velocity transducers, quartz shear transducers or eddy current displacement probe
- Transducer excitation,2-wire or 3-wire output loop power supplies
- Zero to peak, peak to peak or RMS average normalized
- Option for integration for velocity measurement
- Front adjustments for span and zero

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For latest product information or to contact your local representative visit api-usa.com