



# SPECTRUM C O N T R O L S

Your

Enhancing  Rockwell Automation Control System



Spectrum Controls modules lower your costs and enhance your system capabilities. Mixing different signal types on a single **Universal Analog** card or putting more in your I/O rack with our **High-Density** modules, we help you win. If process is your game, our **Isolated Analog** and **Analog with HART** modules, are just the ticket! These are just a few of the advantages of using I/O from Spectrum Controls.

Our new **Universal Industrial Gateway** with 12 built-in protocols provides communications between Rockwell Automation products and other devices; allowing you to **live the Connected Enterprise. InView**, our full line of industrial LED message displays, are visible from up to 450 feet away and allow you to communicate critical production information in real time.



**Encompass™  
Product Partner**

A ROCKWELL AUTOMATION PARTNER

Global



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# ControlTech

Authorized Distributor

[obchod@controltech.cz](mailto:obchod@controltech.cz)  
+420 321 742 026

[www.controltech.cz](http://www.controltech.cz)

# Universal Industrial Gateway

Free Tech Support  
+1.425.746.9481

WP-G-222-P1  
WP-G-222-P2  
WP-G-242-P1  
WP-G-242-P2



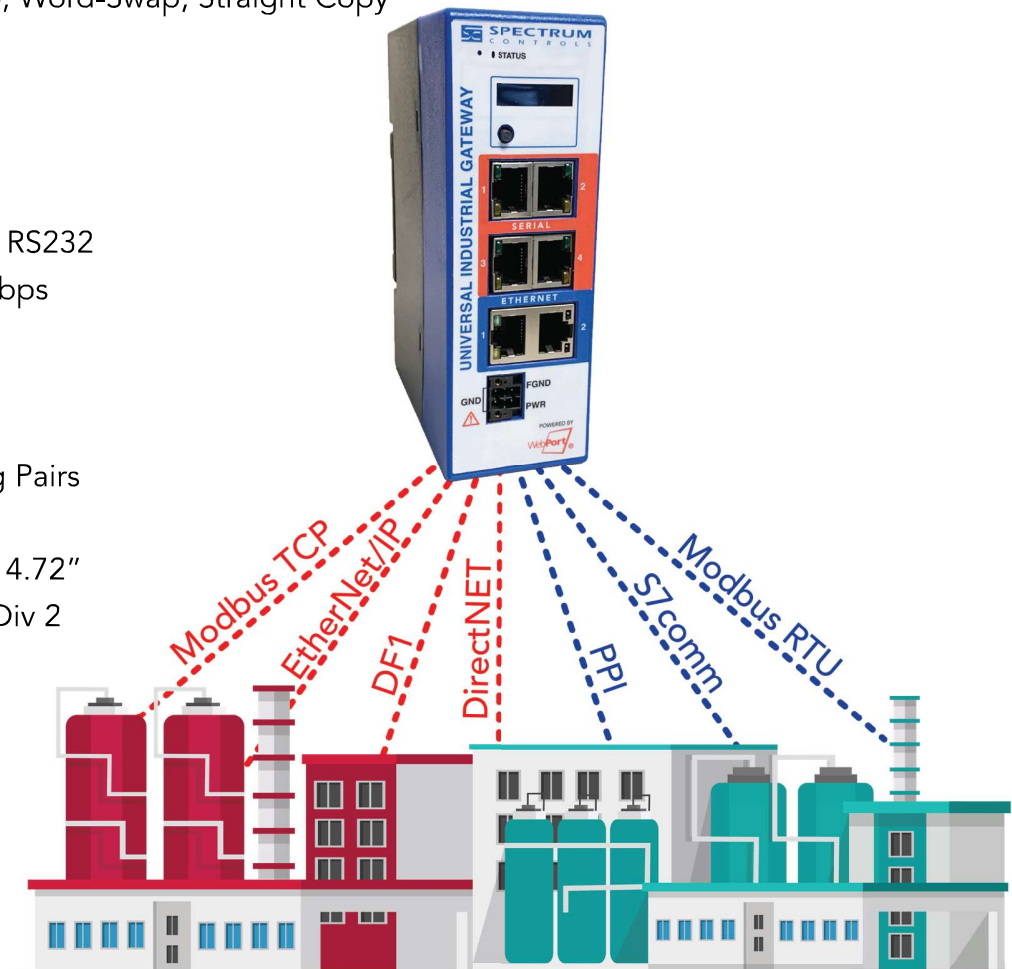
*The Universal Industrial Gateway  
bridges communication gaps  
between Rockwell Automation &  
other Control Systems!*

## Read & Write Data Between Multiple Devices with Different Protocols

- Not just a one-to-one device
  - Any port to any port and any protocol to any protocol - all at the same time!
- No programming software to install or lose
  - **Built-in browser-based configuration**
- Built-in context-sensitive Help with step-by-step instructions
  - No searching for a lost programming manual
- Field upgradeable: more protocols and features coming
- Data Formatting: Byte-Swap, Word-Swap, Straight Copy

## Specifications

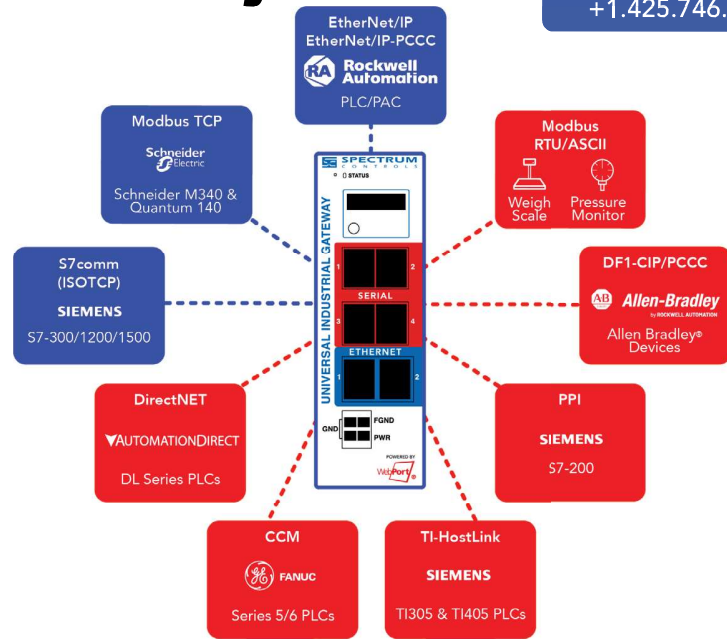
- 2 Ethernet Ports
- 2 or 4 Isolated Serial Ports
  - Configurable for RS485 & RS232
  - Baud Rates up to 115.2 Kbps
- 8 or 12 Protocols
- 66 Protocol Combinations
- 5,000 Tag Pairs (max)
  - 50 Tag Maps with 100 Tag Pairs Per Map
- Dimensions: 3.07" x 1.89" x 4.72"
- RoHS, UL, cUL, CE; Class I, Div 2
- Input Voltage: 10-24 VDC



[spectrumcontrols.com/gateway](http://spectrumcontrols.com/gateway)

# Universal Industrial Gateway

Free Tech Support  
+1.425.746.9481



Catalog #	Serial Ports	Ethernet Ports	Protocols
WP-G-222-P1	2	2	EtherNet/IP, EtherNet/IP-PCCC, Modbus TCP, Modbus RTU, Modbus ASCII, DirectNET, CCM, TI-HostLink
WP-G-242-P1	4	2	EtherNet/IP, EtherNet/IP-PCCC, Modbus TCP, Modbus RTU, Modbus ASCII, DirectNET, CCM, TI-HostLink
WP-G-222-P2	2	2	EtherNet/IP, EtherNet/IP-PCCC, Modbus TCP, Modbus RTU, Modbus ASCII, DF1-PCCC, DF1-CIP, PPI, S7comm, DirectNET, CCM, TI-HostLink
WP-G-242-P2	4	2	EtherNet/IP, EtherNet/IP-PCCC, Modbus TCP, Modbus RTU, Modbus ASCII, DF1-PCCC, DF1-CIP, PPI, S7comm, DirectNET, CCM, TI-HostLink
WP-G-UPG-P2	-	-	Upgrade a -P1 model to a -P2 set of protocols ( <i>Field Upgradeable</i> )

## Universal Industrial Gateway Webinar



[youtube.com/user/spectrumcontrols](https://youtube.com/user/spectrumcontrols)

[spectrumcontrols.com/gateway](https://spectrumcontrols.com/gateway)

# InView® Industrial LED Displays

Free RA TechConnect™  
Support Included

## 2-Inch High Display



2706-P22R-SC (12" wide)

## 7-Inch High Display



2706-P72CN2-SC (36" wide)

2706-P72CN1-SC\* (36" wide)

2706-P74CN2-SC (60" wide)

2706-P74CN1-SC\* (60" wide)

### Message Visibility From Up To 450 Feet Away!

- Vastly superior viewing angle than LCD & most LED displays
- Dynamic messaging, with the use of variables, for real-time information
- NEMA rated enclosures, purpose-built for the industrial environment
- Fully licensed Rockwell Automation technology
- \*NEMA 4X Stainless Steel Enclosures Available

## 4-Inch High Display



2706-P42R-SC (36" wide)

2706-P42C2-SC (36" wide)

2706-P44R-SC (72" wide)

2706-P44C2-SC (72" wide)

## 10-Inch High Display



2706-P92C2-SC (40" wide)

2706-P92C2X-SC\* (40" wide)

2706-P94C2-SC (69" wide)

2706-P94C2X-SC\* (69" wide)

# InView® Communication Modules

## Insanely Easy to Program!

- No programming software to install or lose
  - **Built-in, Easy & Intuitive browser-based programming**
- No searching for a lost programming manual
  - Built-in context-sensitive Help with step-by-step instructions
- Upgrade your old InView comms module!
- Supports: EtherNet/IP, EtherNet TCP/IP & Modbus TCP/IP

### InView Communications Module Selection Guide

	2706-PENETP2-SC	2706-PENETM2-SC	2706-PENETM2C2-SC	2706-PENETK2-SC
P2 displays	✓	•	•	•
P4 displays	•	✓	•	•
P4xC2 displays	•	•	✓	•
P7 displays	•	•	•	✓
P9 displays	•	•	•	✓
EtherNet/IP	✓	✓	✓	✓
EtherNet TCP/IP	✓	✓	✓	✓
Modbus TCP/IP	✓	✓	✓	✓

**Preferred Compatibility  
with  
Allen-Bradley  
Controllers!**

[spectrumcontrols.com/inview](http://spectrumcontrols.com/inview)

# PowerFlex<sup>®</sup> Cards for 753 & 755 Drives

Free RA TechConnect<sup>™</sup>  
Support Included



## 8-Ch Universal Analog Input

20-750sc-8U



### Combine up to 8 Different Analog Input Types & Reduce System Cost

- Each input channel individually selectable to any range:
  - Voltage:  $\pm 50$  mV,  $\pm 100$  mV, 0-5 V, 0-10 V,  $\pm 10$  V
  - Current: 0-20 mA, 4-20 mA
  - Resistance: 0-150, 0-500, 0-1,000, 0-3,000 $\Omega$
  - RTD (3 or 4 wire): PT385/3916, Ni618/672, NiFe518, Cu427 (RTD uses channel pairs)
- 5 filter frequencies (channel-selectable) for fastest analog update times
- Full auto-calibration; on-board error checking
- Open circuit detection for most input types
- 250 VAC channel-to-chassis ground isolation; 10 VDC channel-to channel isolation
- Conformal Coated

## 4-Ch Analog Input + 4-Ch Analog Output

20-750-IF4XOF4-SC



### 4 Analog Inputs & 4 Analog Outputs, Saves Card Slots & Cost

- Each input or output channel individually selectable to any range:
  - Voltage: 0-5 V, 0-10 V,  $\pm 10$  V
  - Current: 0-20 mA, 4-20 mA
- High Accuracy, 16 bit resolution increases your productivity!
- 6 filter frequencies (channel-selectable) for fastest analog update times
- Full auto-calibration; on-board error checking
- Open circuit detection for most input types
- 250 VAC channel-to-chassis ground isolation; 10 VDC channel-to channel isolation
- Conformal Coated

# 2080 Plug-In I/Os for Micro800™

Free RA TechConnect™  
Support Included



## MicroSD Memory with Real Time Clock

### 2080-SDMEMRTC-SC



- Real Time Clock Functionality
- MicroSD Memory card sizes 4, 8, 16 and 32 GB
- Data logging up to 10 MB of data per day
- Firmware update of the controller no longer requires carrying around a PC as the MicroSD card will complete this function
  - Commissioning new machines / replacing the controller is quick & easy
- Store up to 10 Recipe sets with 128 variables each, max. of 50 Recipes per set

## 4 Universal Analog Inputs

### 2080sc-IF4U



- Each input channel selectable to:
  - Current: 0-20 mA, 4-20 mA,
  - Voltage:  $\pm 50$  mV,  $\pm 100$  mV, 0-5 V, 0-10 V,  $\pm 10$  V
  - Resistance: 0-100, 0-1,000, 0-3,000 $\Omega$
  - Thermocouple: J, K, T, E (cold junction compensated)
  - RTD (2, 3 or 4 wire): PT385/3916 100 $\Omega$ /1,000 $\Omega$  (1 input pair per 4 wire RTD)
- Channel-selectable filtering

## 4 Thermistor Analog Inputs

### 2080sc-NTC



- Four channels of thermistor/ resistance (2-wire resistance) inputs
- NTC thermistor support
- Fully linearized sensor data
- High accuracy, 16 bit resolution
- Channel-selectable filtering for fastest analog update time and noise rejection

## BACNet Communications (Serial & Ethernet)

### 2080sc-BAC



- 1 Ethernet communications channel
- 1 serial communications channel
  - RS-485 or RS-232 configurable
- 5 standard BACnet objects supported
- Reduce system cost
- Improve energy efficiency
- Automate lighting control
- Add your machine into your building automaton system

## 2 High Current Relay Outputs

### 2080sc-OW2IHC



- 2-form A, Normally Open relays
- 10A at 0-30Vdc
- 10A at 120VAC or 250VAC
- Channel to channel isolated
- LED indicators show visual status of the relay state
- **Use for high current loads without the need for interposing relays!**

# 2085 Expansion I/O for Micro800™

Free RA TechConnect™  
Support Included



## 8-Ch Universal Analog Input

### 2085-sc-IF8U



- Current: 0 - 20 mA, 4 - 20 mA
- Voltage:  $\pm 50$  mV,  $\pm 100$  mV, 0 - 5 V, 0 - 10 V,  $\pm 10$  V
- Resistance: 150, 500, 1,000 & 3,000  $\Omega$
- Thermocouple: Type J, N, T, K, E, S, R, C, B
- RTD: Pt385, Pt3916, Ni618, Ni672, Cu 426 & NiFe 518
- Open circuit detection

## 8-Ch RTD Analog Input

### 2085-IR8-SC



- 8 channels of input:
  - RTD: 100, 200, 500, and 1,000  $\Omega$  Pt385 & Pt3916, 100  $\Omega$  Ni618, 120 Ni672, 10  $\Omega$  Cu 426, 604  $\Omega$  NiFe 518
  - Resistance: 0-150, 0-500, 0-1000 & 0-3000  $\Omega$
- Open circuit detection

## 16-Ch High-Density Analog Input

### 2085sc-IF16C & 2085sc-IF16V



- IF16C: 0-20 mA, 4-20 mA
- IF16V: 0-5 V, 0-10 V,  $\pm 10$  V
- High accuracy, 16 bit resolution
- Supports range alarms with latches
- Open circuit detection,
- Range scaling of input data in module

## 8-Ch High Density Analog Output

### 2085-sc-OF8



- 8 configurable outputs:
  - Current: 0-20 mA, 4-20 mA
  - Voltage: 0-5 V, 0-10 V,  $\pm 10$  V
- Supports range alarms with latches
- Open circuit detection,
- Range scaling of input data in module

## 32-Ch 24V Source/Sink Discrete Outputs

### 2085-OB32-SC (source)

### 2085-OV32-SC (sink)



- 0.5 Amps per output
- Report module status including brownout detection
- One LED indicator per point
- Highest density discrete outputs for Micro800™ controllers

## 8/16-Ch Thermocouple Analog Input

### 2085-IT8-SC

### 2085-IT16-SC



- 8 or 16 channels of input:
  - Voltage:  $\pm 50$  mV,  $\pm 100$  mV
  - Thermocouple: J, N, T, K, E, S, R, C, B
- High accuracy, 16 bit resolution
- Configurable open circuit detection
- Differential inputs provide 10 VDC of channel-to-channel isolation

## 4-Ch Analog Input & 4-Ch Analog Output Combo

### 2085-IF4XOF4-SC



- 4 inputs & 4 outputs all configurable to:
  - Current: 0-20 mA, 4-20 mA
  - Voltage: 0-5 V, 0-10 V,  $\pm 10$  V
- Configurable open circuit/output fault detection
- Supports range alarms with latches
- High accuracy, 16 bit
- Great for PID loops

**The Highest Density Analog  
Inputs & Outputs  
for Micro800™ Controllers**

# 1734 Point I/O™

Free RA TechConnect™  
Support Included

Rockwell Software  
**Studio 5000™**

## 4-Ch Universal Analog Input

1734sc-IF4U



### 4 Universal Inputs Saves Cost

- 4 Analog, 3 Thermocouples or 2 RTDs; individually selectable
  - Voltage:  $\pm 50$  mV,  $\pm 100$  mV, 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
  - Current: 0-20 mA, 4-20 mA
  - Resistance: 0-3,000 $\Omega$
  - Thermocouple: J, K, T, E
  - RTD: 100/1000  $\Omega$  PT a 0.385/0.3916
- High accuracy, 18 bit resolution
- Channel-selectable filtering

## 2-Ch Isolated Analog Output + HART

1734sc-OE2CIH

**HART**  
COMMUNICATION PROTOCOL



### HART Data to Drive Productivity!

- 2 isolated 4-20 mA with HART or...
- 2 isolated 0-20 mA without HART
- 16-bit resolution, 2/4-wire support
- Auto-scanning of HART variables (PV, SV, TV, FV)
- HART modem per-channel for maximum speed
- HART pass-through messaging
- Open circuit detect, fault reporting, 24 V fault protection & 50 VDC channel-channel Isolation
- DTM (Device Type Manager) enables your asset management software

## 2-Ch Analog Input + HART

1734sc-IE2CH

**HART**  
COMMUNICATION PROTOCOL



## 4-Ch Analog Input + HART

1734sc-IE4CH

**HART**  
COMMUNICATION PROTOCOL



### Maximize System Performance by Combining Real-Time HART Data Acquisition With Standard Analog Control at a Fraction of the Cost!

- 2 or 4 channels of 4-20 mA analog + HART
- High accuracy, 16 bit resolution
- Acts as a HART master, allowing communication with HART field devices
- HART pass-through messaging
- Channel-selectable filtering for fastest analog update time and noise rejection
- User calibration and scaling if desired
- Fault reporting capability
- DTMs (Device Type Manager) enable your asset management software



# 1756 ControlLogix™

Free RA TechConnect™  
Support Included

Rockwell Software  
**Studio 5000**

## 8-Ch Universal Analog Input

1756sc-IF8U



### 8 Universal Analog Inputs On a Single Card Saves Rack Space & Cost!

- Each input channel individually selectable to:
  - Voltage:  $\pm 50$  mV,  $\pm 150$  mV, 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
  - Current: 0-20 mA, 4-20 mA
  - Resistance: 250, 500, 1,000, 2,000, 3,000, 4,000 $\Omega$
  - RTD: PT385/3916, Ni618/672, NiFe518, Cu426
  - Thermocouple: J, K, T, B, E, R, S, N, C
- High Accuracy: 16 to 21 bits (filter dependent)
- User scaling, time stamping, and alarms

## 8-Ch AC Power Monitoring Input

1756-RMS-SC



### Monitor Power Usage to Reduce Energy Costs and Waste!

- 8 High Accuracy, (16 bit) Power Inputs:
  - 1 Current (CT), 1 Voltage (PT)
- Provides: real power, apparent power, reactive power, power factor, RMS voltage and RMS current
- 250 VAC: channel-pair-to-channel-pair isolation, channel-to-chassis ground
- Non-typical AC waveforms supported
- Monitor motor performance

## 32-Ch 48VDC Discrete Input

1756sc-IC32

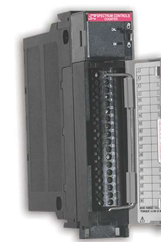


### The Only High Density 48VDC Solution

- 32 channels of 48 Volt DC input
- 8 input channels per group
- Off/On selectable filtering for 0, 1, & 2ms
- On/Off selectable filtering for 0, 1, 2, 9, & 18ms
- Off/On Change-of-State Enable option per input point
- 250 Volts AC RMS continuous isolation from any channel to the backplane & channel to frame ground

## 8-Ch Counter/Flowmeter Input

1756sc-CTR8



### High Density Counting = Lower Cost

- 8 incremental, 24-bit, single-ended counters, or
  - 4 pairs of up/down or quadrature counters
- Configure each input group as: 5, 12, or 24 VDC, or 50, 200 mVpp counters, or as turbine flow
- K factor scaling for turbine flowmeters
- Use for flowmeter proving requirements
- Count direction flags; start, stop, reset, & preset control
- 4 external counter enable lines for faster counter control

# 1794 FLEX™ I/O

Free RA TechConnect™  
Support Included

Rockwell Software  
**Studio 5000**

## 8-Ch Universal Isolated Analog Input

1794sc-IF8IU



### 8 Universal Analog Inputs Lowers Your System Cost

- Each isolated input channel individually selectable to:
  - Current: 0-20 mA, 4-20 mA
  - Voltage:  $\pm 50$  mV,  $\pm 100$  mV, 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
  - Resistance: 0-150, 0-1,000, 0-3,000 $\Omega$
  - Thermocouple: J, K, T, B, E, R, S, N, C (Cold junction compensation included)
  - RTD (2, 3 or 4 wire): PT385/3916, Ni618/672, NiFe518, Cu426 (2 channels for 3 & 4 wire)
- 120 VAC channel-to-channel isolation
- High accuracy, 16 bit resolution
- Each channel provides open circuit detection, and high and low range alarms
- 6 channel-selectable filtering for fastest analog update time and noise rejection
- Easy to configure using ladder register settings or Studio 5000 programming software

## 8-Ch Isolated Thermocouple/RTD Input

1794sc-IRT8I



### 8 Temperature Sensing Inputs for High Accuracy Applications

- Each isolated input channel individually selectable to:
  - Resistance: 0-150, 0-1,000, 0-3,000 $\Omega$
  - Thermocouple: J, K, T, B, E, R, S, N, C (Cold junction compensation included)
  - RTD (2, 3 or 4 wire): PT385/3916, Ni618/672, NiFe518, Cu426 (2 channels for 3 & 4 wire)
- 120 VAC channel-to-channel isolation
- High accuracy, 16 bit resolution
- Each channel provides open circuit detection, and high and low range alarms
- 6 channel-selectable filtering for fastest analog update time and noise rejection
- Easy to configure using ladder register settings or Studio 5000 programming software

# 1762 MicroLogix™ I/O

Free RA TechConnect™  
Support Included

Rockwell Software  
**RSLogix 500**

## 4-Ch Analog Input + 4-Ch Analog Output

1762sc-IF4OF4



*The Highest Density Analog  
Inputs & Outputs for  
MicroLogix Controllers*

### 4 Analog Inputs & 4 Analog Outputs, Saves Slots & Cost

- 2 current only (0-20 mA, 4-20 mA) analog inputs **AND**
- 2 Universal analog inputs individually selectable to:
  - Current: 0-20 mA, 4-20 mA
  - Voltage: 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
  - Thermocouple: J, K, E, T (with cold junction compensation)
- 4 analog outputs individually selectable to:
  - Current: 0-20 mA, 4-20 mA
  - Voltage: 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
- High accuracy, 16 bit resolution
- Channel-selectable filtering for maximum speed with minimum noise
- For Allen-Bradley MicroLogix 1100 and 1200 systems
- Easy to configure using ladder register settings or RSLogix programming software

## 8-Ch Universal Analog Input

1762sc-IF8U



### 8 Universal Inputs Lowers System Cost

- Each input channel individually selectable to:
  - Voltage:  $\pm 50$  mV,  $\pm 100$  mV, 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
  - Current: 0-20 mA, 4-20 mA
  - Resistance: 0-150, 0-1,000, 0-3,000 $\Omega$
  - Thermocouple: J, K, T, B, E, R, S, N, C (cold junction compensation uses 1 channel)
  - RTD (2, 3 or 4-wire): PT385/3916, Ni618/672, NiFe518, Cu426 (2 channels for 3 & 4 wire)
- High accuracy, 16 bit resolution
- Channel-selectable filtering
- Easy to configure using ladder register settings or RSLogix programming software

## 8-Ch Analog Output

1762sc-OF8



### THE High Density Analog Output Solution!

- **Lowest cost per analog output**
- Each output individually selectable to:
  - Current: 0-20 mA, 4-20 mA
  - Voltage: 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
- High accuracy, 16 bit resolution
- Perfect fit for high I/O count analog output applications
- Easy to configure using ladder register settings or RSLogix programming software

# 1769 Compact I/O

Free RA TechConnect™  
Support Included

Rockwell Software  
Studio 5000  
Rockwell Software  
RSLogix 500

## 6-Ch Isolated RTD/Resistance Input

1769sc-IR6I

1769sc-IR6I-K\*



## 6-Ch Isolated Thermocouple Input

1769sc-IT6I

1769sc-IT6I-K\*



### The Only Isolated RTD or Thermocouple Solutions for CompactLogix®

- 6 **Isolated** inputs individually selectable to:
    - Resistance: 0-150, 0-500, 0-1,000, 0-3,000Ω
    - RTD (2, 3 or 4-wire): 100, 200, 500 & 1,000Ω, PT385/3916, 100Ω Ni618, 120Ω Ni672, 604Ω NiFe518, 10Ω Cu426
  - 6 filter frequencies (individually selectable by channel) for fastest update times and noise rejection
  - Open circuit detect & individually programmable high and low alarms for each channel
  - High accuracy, 16 bit resolution
- \* Now Available – Conformal Coating on all 1769!**
- 6 **Isolated** inputs individually selectable to:
    - Voltage: ±50 mV, ±100 mV
    - Thermocouple: J, K, T, E, R, B, S, N, C, L
  - Built-in cold thermocouple junction compensation
  - 6 filter frequencies (individually selectable by channel) for fastest update times and noise rejection
  - Open circuit detect & individually programmable high and low alarms for each channel
  - High accuracy, 16 bit resolution
  - 125 VAC isolation: channel-to-channel, field-wiring-to-backplane & field-wiring-to-chassis-ground

## 8-Ch Universal Analog Input

1769sc-IF8U

1769sc-IF8U-K\*



## 4-Ch Analog Input + HART

1769sc-IF4IH

1769sc-IF4IH-K\*



## 4-Ch Analog Output + HART

1769sc-OF4IH

1769sc-OF4IH-K\*



### 8 Universal Inputs for Lowest Cost

- Each channel individually selectable to:
  - Voltage: ±50 mV, ±100 mV, 0-5 V, 1-5 V, 0-10 V, ±10 V
  - Current: 0-20 mA, 4-20 mA
  - Resistance: 0-150, 0-1,000, 0-3,000Ω
  - RTD: PT385/3916, Ni618/672, NiFe518, Cu426 (2 channels pairs for 3 or 4 wire)
  - Thermocouple: J, K, T, B, E, R, S, N, C
  - Channel-selectable filtering

### The Only HART Solutions for CompactLogix®

Common specifications...

- **Isolated analog inputs/outputs**
- Each channel selectable to:
  - 4-20 mA with HART
  - 0-20 mA without HART
  - Voltage: 0-5 V, 1-5 V, 0-10 V, ±10 V without HART
- HART PV, SV, TV, FV
- Acts as a HART master, allowing communication with HART field devices
- HART modem per-channel for maximum speed
- HART pass-through messaging
- 710 VDC isolation channel-to-channel

# 1746 SLC™ 500

Free RA TechConnect™  
Support Included

Rockwell Software  
**RSLogix 500**

## 8-Ch Universal Analog Input

1746sc-NI8U



- Selectable ranges:
  - Voltage:  $\pm 50$  mV,  $\pm 100$  mV,  $\pm 0.5$  V  $\pm 2.0$  V 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
  - Current: 0-20 mA, 4-20 mA
  - Resistance: 0-3,000 $\Omega$
  - Thermocouple: J, K, T, B, E, R, S, N, C
  - RTD: PT385/3916, Ni618/672, Cu426

## 4-Ch Counter/Flowmeter

1746sc-CTR4



- 4 incremental, single-ended counters or up to two pairs for up/down or quadrature counters
- Configure each input group as 5, 12, or 24 VDC counters, or as turbine flow (Variable Reluctance Coil) AC inputs.
- Counter Speed: 0 Hz to 50 kHz
- Includes scaling K factor for turbine flowmeters
- Use for flowmeter proving requirements

## 4-Ch Isolated Analog Input (V/C)

1746sc-INI4VI



- 4 isolated analog inputs individually selectable to:
  - Current: 0-20 mA, 4-20 mA
  - Voltage: 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
- High accuracy, 16 bit resolution
- Easy to configure using ladder register settings or RSLogix programming software

## 4-Ch Isolated Analog Output (V/C)

1746sc-INO4VI



- 4 isolated analog outputs individually selectable to:
  - Current: 0-20 mA, 0-21 mA, 4-20 mA
  - Voltage: 0-5 V, 1-5 V, 0-10 V,  $\pm 10$  V
- High accuracy, 16 bit resolution
- Easy to configure using ladder register settings or RSLogix programming software

## 8-Ch Isolated, 74 to 276 VAC Triac Output

1746sc-OAP8I



- 1,500 V output-to-output isolation allows mixing phases and control voltages on one module
- Each circuit is individually protected, and provides a 'fuse blown' indication to the SLC 500™, identifying which fuse has opened
- Completely solid-state with no relays to fail

## 8-Ch Counter/Flowmeter

1746sc-CTR8



- 8 incremental, single-ended counters or up to four pairs for up/down or quadrature counters
- Configure each input group as 5, 12, or 24 VDC counters, or as turbine flow (Variable Reluctance Coil) AC inputs.
- Counter Speed: 0 Hz to 50 kHz
- Includes scaling K factor for turbine flowmeters
- Use for flowmeter proving requirements

## 4-Ch Isolated Analog Input (C)

1746sc-INI4I



- 4 isolated analog inputs individually selectable to:
  - Current: 0-20 mA, 4-20 mA
- High accuracy, 16 bit resolution
- Easy to configure using ladder register settings or RSLogix programming software

## 4-Ch Isolated Analog Output (C)

1746sc-INO4I



- 4 isolated analog outputs individually selectable to:
  - Current: 0-20 mA, 0-21 mA, 4-20 mA
- Use any combination of output types at one time
- High accuracy, 16 bit resolution
- Easy to configure using ladder register settings or RSLogix programming software