

## Action Instruments™ Low Profile Signal Conditioners

- Low Power
- Higher Accuracy
- Field Configurable
- E-Mail Alarm Notification

**SlimPak II**


### SPECIFICATIONS

Output:	0-10V, 0-20mA, 4-20mA
Accuracy (In/Out):	±0.015% rng / ±0.05% rng
Isolation:	1800V AC/DC, In/Out/Power
Operating Temp:	0 to 60°C, <95% RH
Power:	9-30VDC, 1W typ.
Alarm:	2 SPDT, 5A@120VAC
Size:	0.5" wide DIN rail case
Approvals:	UL508, CSA C22.2, CE

### ORDERING INFORMATION

Model	Function	Range
WV408-2000	DC	±150mV, 1.5/15/150V, 2.5/25mA +reverse
WV418-2000	RTD	2/3/4 wire: Pt100, Cu10
WV428-2000	T/C	J,K,T,R,S,E,B,N,C,B
WV438-2000	Potentiometer	100Ω to 100kΩ
WV448-2000	Bridge	±5/10/20/50/100/200mV (1-10VDC, 120mA excitation)
WV468-2000	AC	±50/150/500mV, 5/20/50/150/250V, 20/100mA +reverse (40-400Hz)
WV478-2000	Frequency	0-10kHz (150mV-150V)
WVC16-2000	Communication	Up to 32 modules to Ethernet 10Base-T
C650-2000	Software	Includes serial cable
WV905	Power Supply	24VDC @0.5A

Also available as Limit Alarms with latching relays &amp; reset switch

## Pyragon Temperature Transmitter

- T/C Head Mount
- Wide Operating Temperature Range
- Factory Configured, Ready to Install

**2700T**


### SPECIFICATIONS

Input:	T/C J,K,T,E,R,S,B,N,L,U,W RTD Pt, Ni, Cu; 2,3 or 4-wire DC -10 to 70mV, -0.1 to 1.1V Resistance 390Ω, 2200Ω
Input Accuracy:	0.1°C (Pt100), 1°C (K T/C)
Output:	2-wire, 4-20mA or 20-4mA
Output Accuracy:	0.1% of span
Resolution:	Input 16 bit, Output 12 bit
Supply:	8-35VDC
Operating Temp:	-40 to 85°C, <98% RH condensing
Dimensions:	1.73" dia x 1.04" (44x26.3mm)
Isolation:	3.75kV AC

### ORDERING INFORMATION

PY/2700T	Temperature Transmitter (specify input type & range)
PY/2750T	2700T with Hart® protocol

## NLS Series 8000 Signal Conditioners

- Input, Output, Isolation, Power Supply and Special Functions Combined into One Low Cost Modular Unit
- Field-Settable Range and Span and Field Configuration
- Fuse Protected Linear Power
- UL Recognized
- High Impact, Flame Retardant Polycarbonate Case

**8000-1-1**


The Series 8000 signal conditioners are designed with a modular architecture to allow full input, output, and special function selectability and interchangeability. They can also be used as isolators, signal amplifiers, and transmitters.

## NLS Series 8000 Signal Conditioners

### ORDERING INFORMATION

To Order—Insert Number Code for Each Letter to Select Catalog Number.

Order Example: 8000-1-1-01(0-27.2V)-60(4-20mADC)

**A** - **B** - **C** - **D** - **E**

A Basic and Power—See Base Style Selection Chart	
8000-1-1	8-Pin, 120 VAC Power
8000-2-1	11-Pin, 120 VAC Power
8000-3-1	20-Pin, 120 VAC Power
8000-2-2	11-Pin, 240 VAC Power
8000-3-2	20-Pin, 240 VAC Power
8000-1-3	8-Pin, 9-30 VDC Power
8000-2-3	11-Pin, 9-30 VDC Power
8000-3-3	20-Pin, 9-30 VDC Power

B Input Code	
01	DC: Voltage to 300, Current to 100 mA—Specify Range
02	Potentiometer: Any Value from 0-100Ω to 100 kΩ
03	AC: Voltage to 250 V, Current to 100 mA—Specify Range
04	Thermocouple: non-linearized J, K, T, E, R, S, or B—Specify Type and range. See special function "43" for Linearization
05	RTD: Pt100Ω (∞00385), Cu10Ω or Ni120Ω—Specify Type and Range
06	DC Millivolts: 0-200 (8 mV min span)—Specify Range
08	LVDT: 50 mV/V to 800 mV/V RMS—Specify Range
09	Strain Gauge: 2 mV/V to 20 mV/V—Specify Range
10	Frequency: 0-50 kHz (50 Hz min span)—Specify Range
11	Ramp/Soak Programmer
12	High Select: up to 4 inputs: 4-20 mA, 1-5V, or 0-10V—Specify Range
13	Low Select: up to 4 inputs: 4-20 mA, 1-5V, or 0-10V—Specify Range
14	Add/Subtract: up to 4 inputs: 4-20 mA, 1-5V, or 0-10V—Specify Range
15	Multiply (A x B)—Specify # of inputs and type
16	Divide (A x B)—Specify # of inputs and type

C Output Code	
60	DC: 0-12V (100 mV min) or 0-50 mA (1 mA min)—Specify Range
70	Frequency: 5V (TTL), 0-50 kHz (11 pulses/hour min)—Specify Range
71	Frequency: Contact Closure 0-2 Hz (11 pph min)—Specify Range
72	Frequency: 24V pulse 0-50 kHz (11 pph min)—Specify Range
73	Valve Positioner: Pot 100-9.9 kΩ, 10k-100 kΩ; 4-20 mADC, 0-1 VDC or 0-10 VDC—Specify feedback type
80	Single Alarm Setpoint: Single Turn Pot, Screwdriver Adj.

81	Single Alarm Setpoint: Remote 4-20 mADC
82	Single Alarm Setpoint: Remote 1-5 VDC
83	Single Alarm Setpoint: Remote 0-1 VDC
84	Single Alarm Setpoint: Remote 0-10 VDC
85	Single Alarm Setpoint: Multi-turn Pot., Screwdriver Adj.
86	Single Alarm Setpoint: Plus Top Mounted Knob, 0-100%
87	Single Alarm Setpoint: Remote Pot., 0-100Ω to 100 kΩ
90	Dual Alarm Setpoint: Single Turn Pot, Screwdriver
91	Dual Alarm Setpoint: Remote 4-20 mADC
92	Dual Alarm Setpoint: Remote 1-5 VDC
93	Dual Alarm Setpoint: Remote 0-1 VDC
94	Dual Alarm Setpoint: Remote 0-10 VDC
95	Dual Alarm Setpoint: Multi-turn Pot., Screwdriver Adj.
96	Dual Alarm Setpoint: Plus Top Mounted Knob, 0-100%
97	Dual Alarm Setpoint: Remote Pot., 0-100Ω to 100 kΩ

D Special Functions	
00	None
40	Square Root
41	Power Term: N <sup>m</sup> Power
42	N <sup>m</sup> Root: Adjustable root 0.5 to 5
43	Thermocouple Linearization (type/range specified by input code)
44	Curve Fit Linearization: Curve or formula must be provided
45	Ramp Buffer: Delays signal action (adj. 1 sec to 20 min)
46	Peak/Valley Sample Hold: Specify Peak or Valley
48	Rate of Change Processor: (Specify time base, 1 sec etc.)

E Options for Alarm Setpoints	
00	None
01	Low or Low/Low relay sense (Single or dual alarms)
02	High/High relay sense (Dual alarms)
03	Fail-Safe Operation (Dual alarms)
04	Transmitter Output 0-1V output for process, Setpoint #1 and Setpoint #2 (Setpoint output not avail. with strain gage, add/subtract, or high/low select)
05	Latching relay(s): Jumper selectable for Latch/Non-Latch
07	Voltage Output (24V @ 15 mA) replaces relay contacts
Options for Temperature Inputs	
06	Down scale burnout for thermocouple input
08	Differential RTD input: Specify differential range
09	Differential thermocouple input: Specify differential range

### BASE STYLE SELECTION CHART

Output Code	Type	60	80, 85, 86 90, 95, 96	73, 81, 82, 83, 84, 91, 92, 93 94; or 80, 85, 86 90, 95, 96 w/ 07	70	71	60 72	70, 71 72 w/46
01/03/04/06/10	DC, AC, Frequency	8	11	20	8	11	11	20
02	Potentiometer	8	20	20	8	20	20	20
05	RTD	20	20	20	8	20	20	20
09	Strain Gauge	11	20	20	11	11	—	—
08	LVDT	11	20	—	20	20	—	—
15/16	Multiply/Divide	8	20	20	8	20	20	20
12/13/14	High/Low	20	20	20	20	20	—	—
11	Ramp/Soak	20	20	—	—	20	—	—

To determine the number of pins required for the signal conditioner, select input code and output code and read across and down. Make sure to order mounting socket.

### ACCESSORIES

#### Mounting Sockets—Required and Sold Separately

DR011	11-Pin Barrier Terminal Socket for DIN Rail or Flush Mount
DR014	Din Rail—Three Foot Length Metal Channel Track
DR018	8-Pin Barrier Terminal Socket for DIN Rail or Flush Mount
SM004	DIN Rail—Four Foot Length Plastic Channel Track

SM008	8-Pin Barrier Terminal Socket for Channel Track
SM011	11-Pin Barrier Terminal Socket for Channel Track
SM020	20-Pin Barrier Terminal Socket for Channel Track
SX008	Explosion Proof Housing (Meets Class I, Group D, Class II, Group E, F, and G)