

# Signal Conditioning Modules, 0-5 VDC, 0-12 VDC and 4-20 mA Outputs

Provide signal conditioning as an integral part of the XT-Series and SureSite® Transmitters

- ▶ Stem Mounted
- ▶ Panel Mounted
- ▶ J-Box Enclosed
- ▶ Units with Preset High and Low Alarm

GEMS' signal conditioners provide outputs for direct connection to a wide range of instrumentation. They are ideal for large, multi-tank complexes. Units with 4-20 mA outputs are particularly well suited for instrumentation control loops. No intermediate receiver is required.

## Specifications (Not included in table below)

<b>System Accuracy</b>	With XT-36000 Series Transmitters: ±0.4% of full scale or ±1°, whichever is greater. With XT-800 Series Transmitters: ±0.4% of full scale or ±1/2°, whichever is greater.
<b>Operating Temperature</b>	+5°F to +160°F (-15°C to +71.1°C)
<b>Storage Temperature</b>	-40°F to +212°F (-40°C to +100°C)
<b>Output Temperature Coefficient (% of full scale, max.)</b>	±0.00388%/°F (±0.007%/°C)
<b>4-20 mA Types</b>	To within ± 1% of 16 mA

## Modules with High and Low Alarms

Featuring two SPDT switches, these units can trigger alarms, or start/stop pumps, open/close solenoid valves, etc. Ideal for use in process control applications. The high level alarm can be set between 50% and 98% of full indicating range and low level can be set between 2% and 50% of full range. If not specified, alarms are set 95% and 5% respectively.

## Alarm Specifications

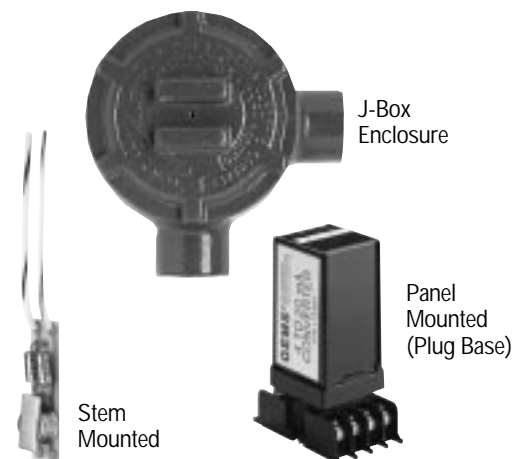
<b>Configuration</b>	1 high, 1 low, SPDT, each alarm
<b>Contact Rating</b>	2A @ 28 VDC; 1A @ 115 VAC
<b>Repeatability</b>	±0.1% of full scale with differential of .015% of full scale
<b>Temperature Coefficient</b>	±0.001388% of full scale/°F (±0.0025% of full scale/°C)

## How To Order

Select Part Number based on Output Signal desired and Transmitter Series being used.

Output Signal	Input Voltage	Electrical Termination	Module Part Numbers For:					
			XT-800 Series	XTP-800	XT-36488	XT-36490	SureSite Low Temperature	SureSite High Temperature
0-5 VDC*	8-24 VDC	Lead Wires, #22 AWG 24" (60.9 cm), Teflon® Jacket	51965	51965	-	-	-	-
0-12 VDC*	14-30 VDC		51970	51970	-	-	-	-
0-5 VDC	8-24 VDC	Junction Box	52536	154687	154687	52532	86156	52536
0-12 VDC	15-30 VDC		52537	154685	154685	52533	85997	52537
0-12 VDC Hi & Lo Alarms	18-30 VDC		52544-1	154091-1	154091-1	52541-1	86157	52541-1
4-20 mA	10-40 VDC	Junction Box	52555	116970	116970	52550	86158	152800
		Panel Mount with Plug-In Base	112300					

\*Stem mounted.



## Power Supply Module

Input Power	Part Number
115 VAC, 60 Hz	52560
230 VAC, 60 Hz	52570

Operates on 115 VAC or 230 VAC inputs to supply a regulated 24 VDC to the signal conditioned transmitter where external VDC power is not available. Maximum Load: 70 mA.

## Excitation Required for Transmitters using 4-20 mA Signal Conditioners

The minimum excitation required for operation of transmitters with 4-20 mA, DC signal converters (See Chart) can be determined for a given total loop resistance from the graph shown. (Total loop resistance = the sum of the DC termination resistance plus loop resistance.) For optimum operation, which is a function of source voltage (+V<sub>s</sub>) and total loop resistance, the source voltage value used should be above the minimum load line for the related loop resistance.

