

Series 17 and 27 Intrinsically Safe Controls

- ▶ Cannot Ignite Flammable Materials
- ▶ Solid State Reliability
- ▶ Up to 470K Ohm/cm Sensitivity (Series 17)
- ▶ Internal Surge Suppression
- ▶ SPST Contacts (Series 17)
- ▶ SPDT Contacts (Series 27)
- ▶ Can Be Used for Single Level or Differential Service

Series 17 – FM Approved

Series 17 is FM Approved for use in Class I or II, Division 1, Groups A-G hazardous atmospheres. SPST isolated contacts. **Field adjustable sensitivity by use of external resistors.**

Series 27 – UL-CSA Approved

Series 27 is UL approved for use in Class I, Groups A, B, C, D; Class II, Groups E, F, G; and Class III hazardous locations. SPDT output contacts. UL Pilot Duty rated.

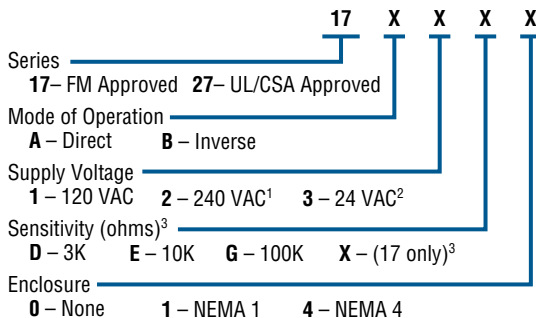
CSA Certified for Class 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III

Specifications

Contact Design	
Series 17	1 N.O. & 1 N.C. Isolated Contacts
Series 27	1 N.O. & 1 N.C. (1 form C)
Contact Rating (24/120/240VAC) 8 amp Resistive	
Mode of Operation Direct/Inverse, factory set	
Sensitivity	
Series 17	0-470K ohm, field adjustable
Series 27	0-100K ohm, factory set
Primary Voltage	
Series 17	24 VAC, 120 VAC, 240 VAC (+10%/-15%) 50/60 Hz
Series 27	120 VAC, 240 VAC (+10%/-15%) 50/60Hz
Secondary Voltage	
Series 17	13 VAC, 4 mA
Series 27	11 VAC, 2.3 mA
Temperature -40°F to +150°F (-40°C to +65°C)	
Approvals	
Series 17	FM File # 1G9A1.AX
Series 27	U.L. 913 File # E44570; CSA #2174246
Connections All screw type connections	

How to Order

Use the **Bold** characters from the chart below to construct a product code.



Notes:

- 240V standard in Series 17. Non-standard, but available in Series 27.
- 24V available only in Series 17.
- Series 27 only. Series 17 includes a full set of resistors (3.3K, 4.7K, 10K, 47K, 100K, 220K, 470K ohms) to allow modification of sensitivity in the field. Product code symbol in this position for Series 17 is "X."



Series 17

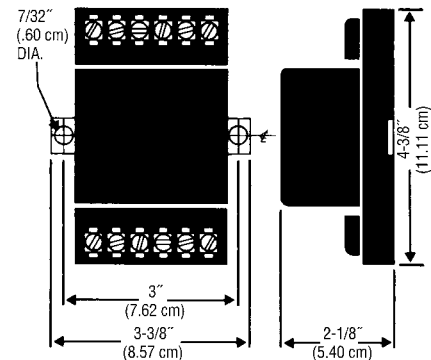


Series 27

Applications

- Hazardous Atmospheres
- Pumps
- Waste Treatment
- Alarms
- Sewage
- CP Industry

Dimensions



WARRICK CONDUCTIVITY SENSORS

Series 47 4-Channel Relay, Alarm Panel Control

- ▶ Solid State Reliability
- ▶ 0-50K Ohm/cm Sensitivity
- ▶ Alarm Contacts for Audible and Visual Alarms
- ▶ 4 Channel Relay
- ▶ Removable Terminal Strips
- ▶ Inverse or Direct Acting Field Selectable
- ▶ U.L. Listed

Series 47 controls offer complete alarm panel control in a single package. Powered output contacts allow quick connection of lights and audible alarms. Test and silence functions are built in. Unit also carries one SPDT master alarm contact for remote alarm activation.

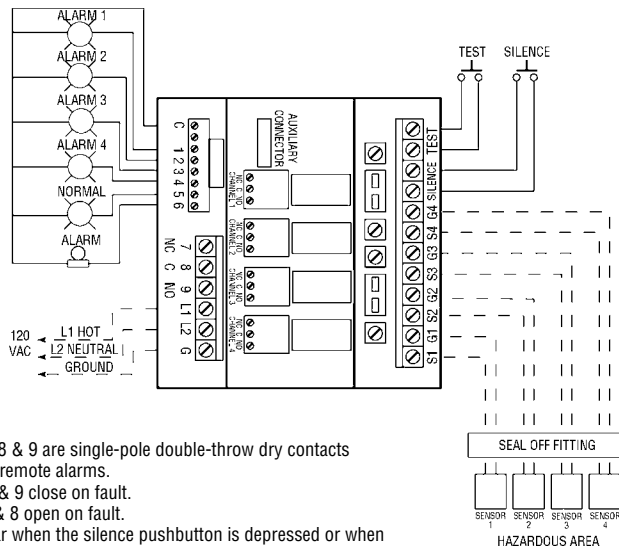
Approved for Class I, II, III, Division 1, Groups C, D, E, F, G hazardous atmospheres, Series 47 controls supply four channels which can be used with conductivity liquid level sensors or dry contact sensors.

This device functions as an alarm or single point control. Field adjustable for direct or inverse operation, it can operate separate visual alarms with a common audible alarm channel. Silence and test terminals are standard. For additional lights, alarms or outputs, auxiliary contacts must be ordered.

Alarm Specifications

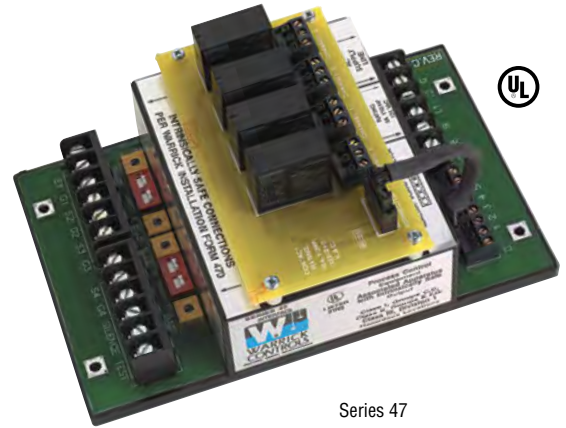
Contact Design	SPDT 1 N.O. & 1 N.C.
Master Alarm Contact Rating (30VDC, 120/240VAC)	5 amp Resistive, 1/10 hp
Indicator Contacts	Powered 120 VAC 25mA
Indicator Contacts for Audible Alarm	Powered 120 VAC 5A
Auxiliary Contacts (optional)	SPDT 120 VAC 10A (not powered)
Sensitivity	0-50K ohm maximum specific resistance
Primary Voltage	120 VAC (+10%/-15%) 50/60 Hz
Secondary Voltage	12 VAC @ 6mA RMS
Temperature	-40°F to +150°F (-40°C to +65°C)
Approvals	U.L. 913 File # E44570

Wiring



Notes:

1. Terminals 7, 8 & 9 are single-pole double-throw dry contacts designed for remote alarms.
2. Terminals 8 & 9 close on fault.
3. Terminals 7 & 8 open on fault.
4. Contacts clear when the silence pushbutton is depressed or when the fault condition is cleared.

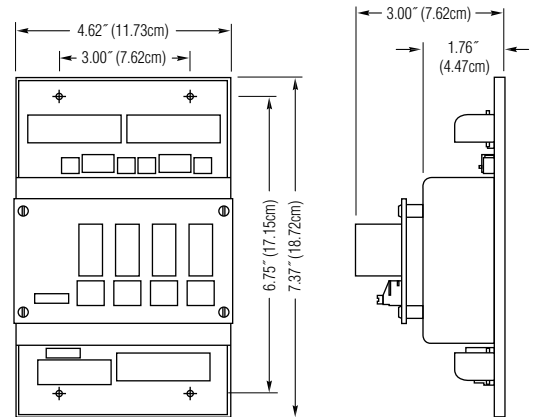


Series 47

Applications

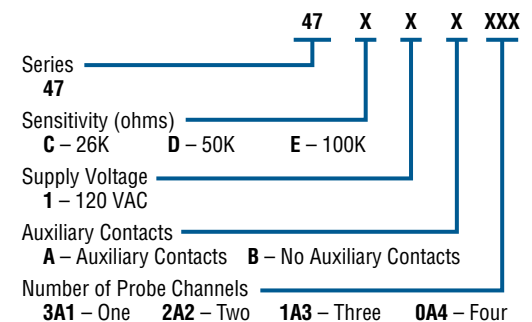
- Hazardous Atmospheres
- Monitoring and Control
- Storage Tank Alarm Panels
- Input for Computer
- Input for Phone Dialer

Dimensions



How to Order

Use the **Bold** characters from the chart below to construct a product code.



See Our Interstitial Tank Monitoring Products on page A-22.



Series 67 Multi-Function Control Duplex Pump System Control

- ▶ Inverse or Direct Acting, Field Selectable
- ▶ Solid State Reliability
- ▶ Compact Size
- ▶ Four Independent Channels – 2 Single, 2 Differential
- ▶ Field Adjustable, Sensitivity and Mode Selection
- ▶ LED Channel Indicators
- ▶ Built-in Silence/Acknowledge Circuit
- ▶ U.L. “Intrinsically Safe”

Warrick's Series 67 four channel level control is an ideal solution to liquid level problems in hazardous applications for the sewage, waste water, chemical and groundwater remediation industries.

Connected to floats or conductance probes this versatile control provides simplex or duplex pump/solenoid valve control; automatic or manual alternation; high and/or low level alarms with silence/acknowledge capabilities.

The Series 67 can be used in hazardous applications as an intrinsically safe interface to non-powered contacts and sensors such as push button operators, limit, temperature, pressure and vacuum switches.

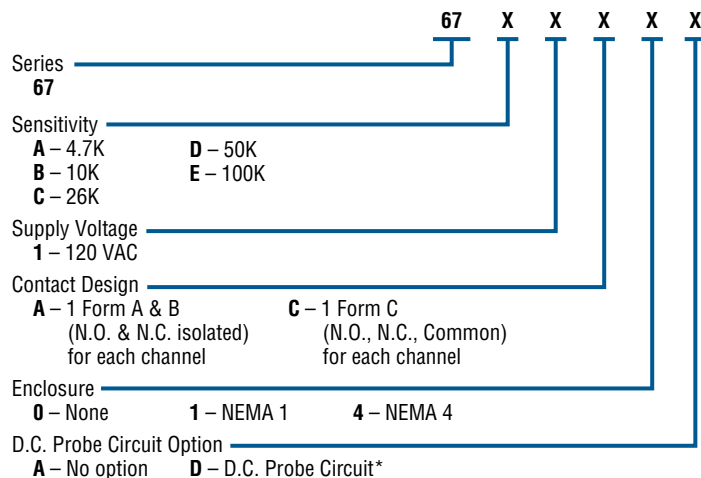
Designed for hazardous applications, its low cost, integrated features and compact size also make it ideal for non-hazardous applications.

Specifications

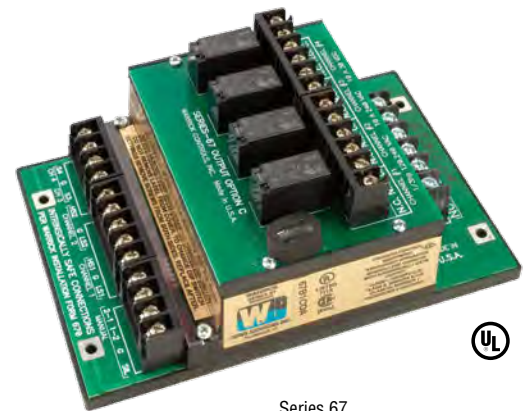
Contact Design	Standard N.O., N.C. (form C); Optional N.O., N.C.
Contact Rating (30VDC, 120/240VAC)	10 amp (style C); 5 amp (style A)
Primary Voltage	120 VAC, 50/60 Hz
Secondary Voltage	12 VAC @ 6mA RMS
Sensitivity	4.7K - 100K ohms maximum specific resistance, factory set
Temperature	-40°F to +150°F (-40°C to +65°C)
Approvals	U.L. 913 File # E44570

How to Order

Use the **Bold** characters from the chart below to construct a product code.



*Eliminates short cycles

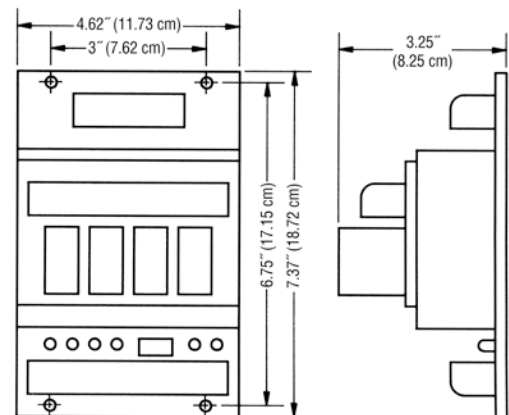


Series 67

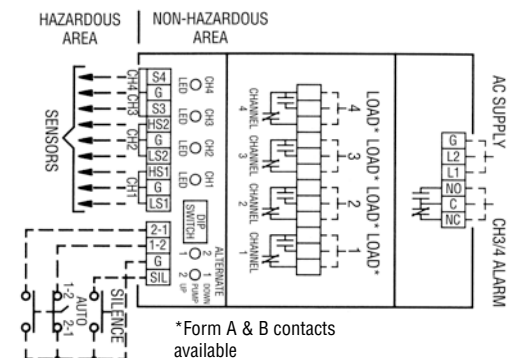
Applications

- Hazardous Atmospheres
- Multiple Functions
- Simplex or Duplex
- High/Low Level Alarms
- Auto or Manual Alternation
- Pump/Solenoid Valves
- Sewage Lift Stations
- Wastewater Treatment
- Chemical Plants
- Groundwater Remediation

Dimensions



Wiring



See Our Interstitial Tank Monitoring Products on page A-22.

