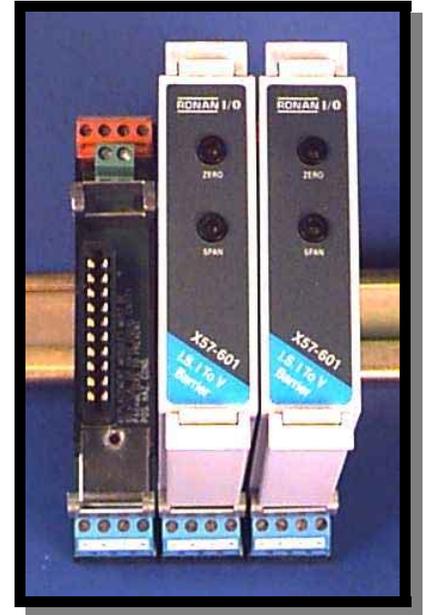


## Basic Safety & Operational Specifications for Active Barriers

### X57-601; -601R; -601H 4-20 mA Input Signal Repeater/Isolator with 0-10 vdc Output

- ◆ Use with Conventional or Smart 2-Wire Transmitters
- ◆ Plug-in Style to Simplify Installation, Commissioning, and Maintenance
- ◆ 2500 Vrms Input to Output Isolation
- ◆ Front Access to Zero and Span Adjustments
- ◆ DIN Rail or Multi-barrier Surface mount Chassis Options



**DESCRIPTION:** The X57-601 is an active isolation barrier designed to provide power to a field mounted I.S. certified 2-wire transmitter. The X57-601 monitors the 4-20 mA current signal from this field transmitter and then repeats a 0-10 vdc signal into the safe area. The X57-601's output signal is powered by the barrier (i.e. does not require separate power supply). The barrier is powered by 24 vdc, and it does not require an I.S. ground connection. Use X57-601R for smart field transmitters with Hart protocol, and use X57-601H for transmitters using Honeywell's protocol standard.

#### SPECIFICATIONS:

**Type:** active galvanic isolation

**Chassis:** plug-in single or multi-barrier chassis

**Mounting:** surface mount (single/multiple barrier)  
or single DIN rail mount

**Wiring:** all wiring and grounding connects to terminals on the chassis

**Wire Size:** up to #12 awg (1.5 mm<sup>2</sup>)

**Size:** 3.6"H X 0.88"W X 4.75"D (without chassis)  
(91.44mm X 22.35mm X 120.65 mm)

**Weight:** 6 oz (168 gm) (without chassis)

**Power Supply:** nominal 24 vdc (21.6-26.4 vdc)

**Power Consumption:** 2.4 watts (100 mA @ 24 vdc)

**Input:** 4-20mA (from 2-wire field transmitter)

**Input Loop Power:** >16.5 vdc (with 21vdc supply)

**Max. input loop resistance:** (16.5 -  $V_{trans. min}$ )/.02

**Output:** 0-10 vdc

(output loop is powered by the barrier)

**Output Resistance:** 500 Ohms

**Response Time:** 50 msec (0-99% of final value)

**Accuracy:** +/- 0.1 % of span

**Temp. Coefficient:** zero is < +/- 0.01%/°C  
span is < +/- 0.01%/°C

**Operating Temp.:** -4°F to 131°F (-20°C to +55°C)

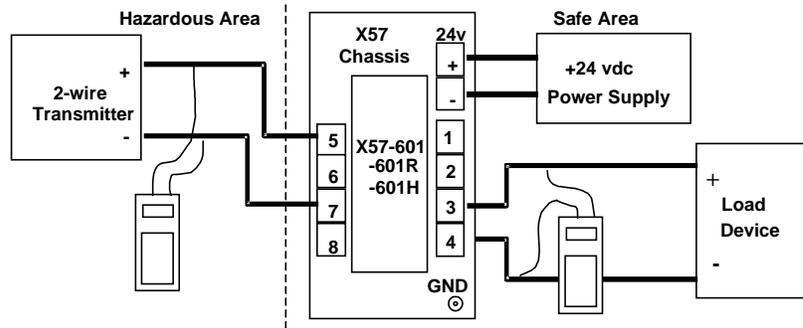
**Storage Temp.:** -40°F to 176°F (-40°C to +80°C)

**Approvals:** Class I, II, III; Div.1; Grps A-G

Specifications apply at 23 +/- 2°C (74 +/- 2°F) unless otherwise specified, and are subject to change without notice,

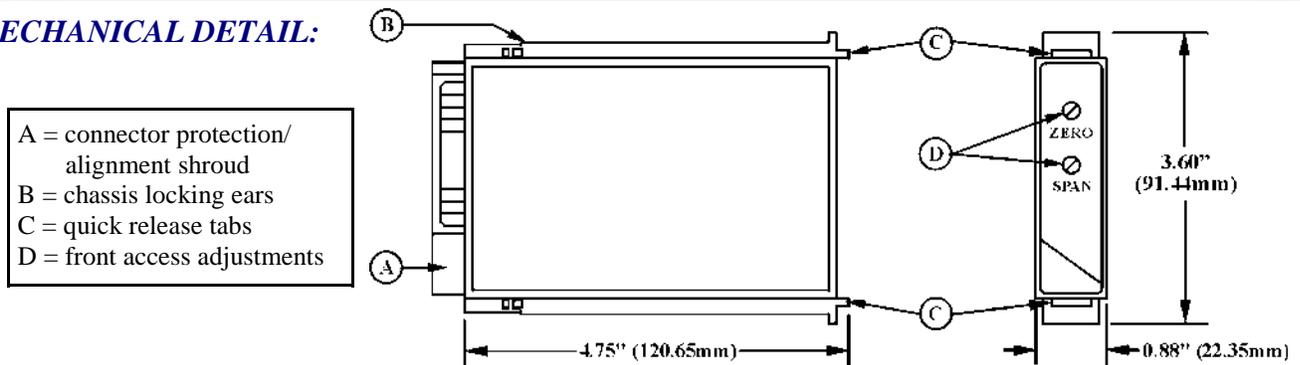
SAFETY PARAMETERS:				Ca (µF)			La (mH)		
	Voc/ Vmax/Uz	Isc (mA)	Rmin (ohms)	Groups A/B	Groups C, E	Groups D,F,G	Groups A/B	Groups C, E	Groups D,F,G
FM	28.5	100		0.12	0.39	1.04	3.8	15.0	29.6
CSA	28.0		300	approved	approved	approved	approved	approved	approved
UL	Pending								
CENECLEC	Pending								

### APPLICATION:



- Important Notes:**
- 1.) When used in hazardous area, handheld programmer must be I.S. certified.
  - 2.) Barrier requires 24 vdc power.
  - 3.) I.S. ground is not required.

### MECHANICAL DETAIL:



### ORDERING INFORMATION:

#### Barriers:

- X57-601 ..... for conventional I.S. certified 2-wire transmitters with proper entity numbers.
- X57-601R ..... same as above for smart transmitters with Hart protocol
- X57-601H ..... same as above for smart transmitters with Honeywell protocol

#### Chassis Options:

- X57-PDIN-32 ..... single barrier chassis for 32 mm "G" style DIN rails
- X57-PDIN-35 ..... single barrier chassis for 35 mm "U" style DIN rails
- X57SM-1 ..... single barrier surface mount chassis
- X57SM-1-3-4 ..... single barrier surface mount chassis with optional ground bar and four ground clamps
- X57SM-4-(?)-(??)-(???) ..... four (4) barrier surface mount chassis (gnd. bars & clamps optional)
- X57SM-10-(?)-(??)-(???) ..... ten (10) barrier surface mount chassis (gnd. bars & clamps optional)
- X57SM-16-(?)-(??)-(???) ..... sixteen barrier surface mount chassis (gnd. bars & clamps optional)
- X57SM-20-(?)-(??)-(???) ..... twenty barrier surface mount chassis (gnd. bars & clamps optional)

- ? ➔ 1= optional ground bar on safe side; 2= optional gnd. bar on haz. side; 3= gnd. bars on both sides; omit if not needed
- ?? ➔ Qty of gnd. clamps on safe side gnd bar. (max qty.= 16 for SM-4, 40 for SM-10, 64 for SM-16; 80 for SM-20) or omit
- ??? ➔ Qty of gnd. clamps on haz. side gnd bar. (max qty.= 16 for SM-4, 40 for SM-10, 64 for SM-16; 80 for SM-20) or omit

#### Accessories:

- X57-GC ..... ground clamps
- X57-BLK ..... blank panel for unused chassis position
- D1-32x15 ..... 32 mm X 15mm "G" style DIN rail (order by the foot)
- D2-35x7.5 ..... 35 mm X 7.5 mm "U" style DIN rail (order by the foot)

