Basic Safety & Operational Specifications for Active Barriers

X57-600; -600R; -600H   4-20 mA Input Current Repeating I to I Isolator

♦ **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 X57-600 is an active isolation barrier designed to provide power to a field mounted I.S. certified 2-wire transmitter. The X57-600 monitors the 4-20 mA current signal from this field transmitter and then repeats the the signal into the safe area. The X57-600's output 4-20 mA signal loop 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 X57-600R for smart field transmitters with Hart protocol, and use X57-600H 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^2)
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: 2.5 watts (104 mA @ 24 vdc)
Input: 4-20mA (from 2-wire field transmitter)

Power to Field Tansmitter: >16.5 vdc (with 21vdc supply)
Max. input loop resistance: (16.5 - Vtra*ns. min)/.02*
Output: 4-20 mA into 0-900 ohm load
    (output loop is powered by the barrier)
Output Resistance: > 1 Mohm
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)
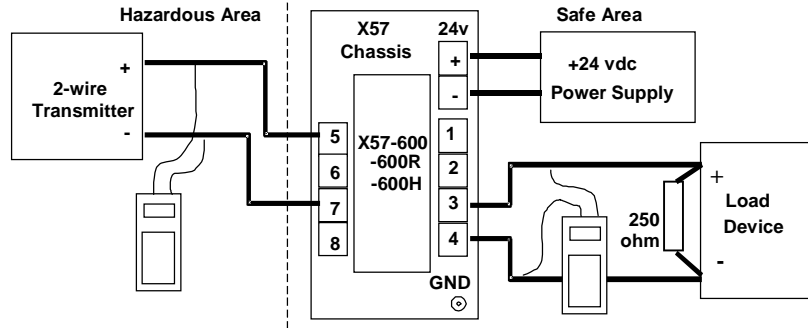*Approvals:* Class I, II, III; Div.1; Grps A-G

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

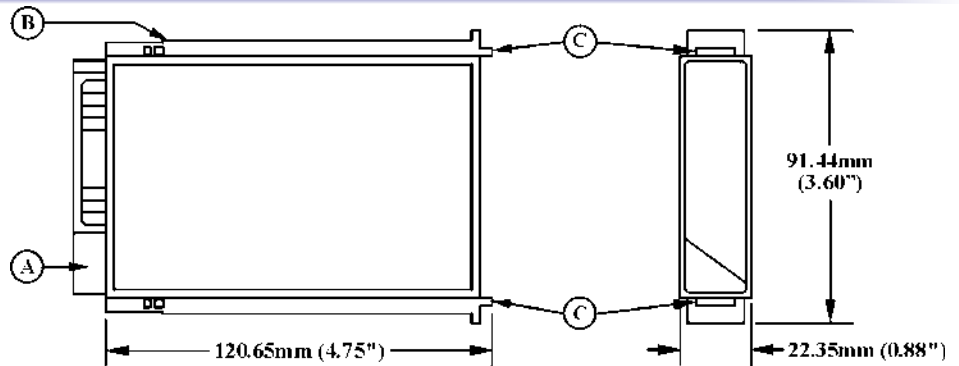| *SAFETY PARAMETERS:*				Ca (µF)			La (mH)		
	Voc/ Vmax/Uz	Isc (mA)	Rmin (ohms)	Groups A/B	Groups C, E	Groups D,F,G	Groups A/B	Groups C, E	Groups D,F,G
FM	28.5	100		0.12	0.39	1.04	3.8	15.0	29.6
CSA	28.0		300	approved	approved	approved	approved	approved	approved
UL	Pending								
CENECLEC	See Data Sheet "X57-660; -660R; -660H" for CENELEC equivalent barriers.								

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:

A = connector protection/
    alignment shroud
B = chasses locking ears
C = quick release tabs

ORDERING INFORMATION:

Barriers:
X57-600 .... for conventional I.S. certified 2-wire transmitters with proper safety parameters.
X57-600R .... same as above for smart transmitters with Hart protocol
X57-600H .... 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)