



# Isolated Transmitters: 600T Series

## Application Notes

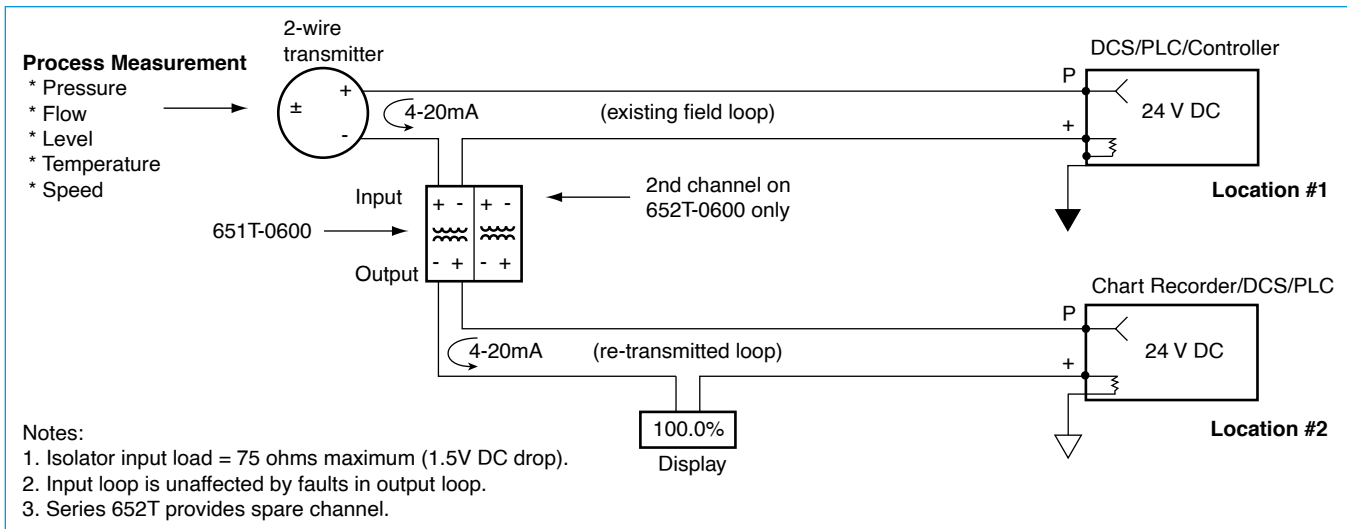


### Application 1

Retransmitting a signal from a two-wire loop to a second location.

### Solution

Use either a model [651T-0600](#) (single channel) or [652T-0600](#) (dual channel) transmitter.

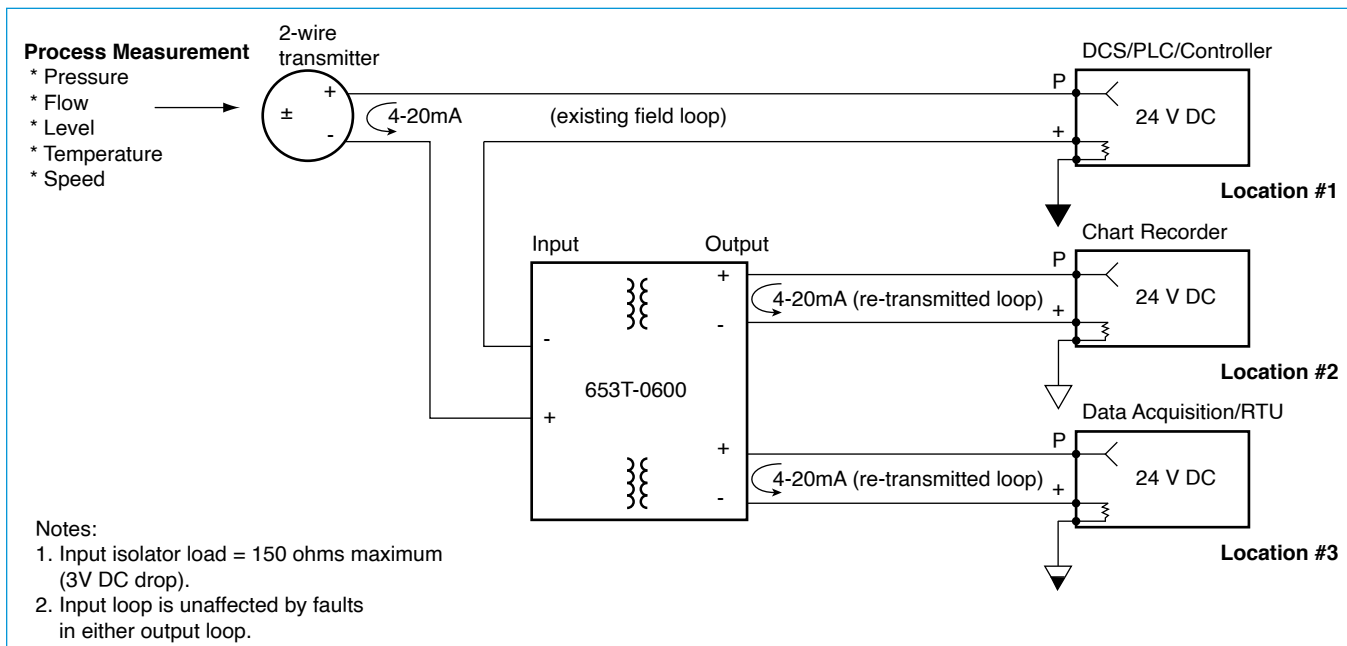


### Application 2

Splitting a signal from a two-wire loop: two outputs for different locations.

### Solution

Use either a [653T-0600](#) (single input, dual output) or [652T-0600](#) (dual input, dual output) unit.





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## Application Notes



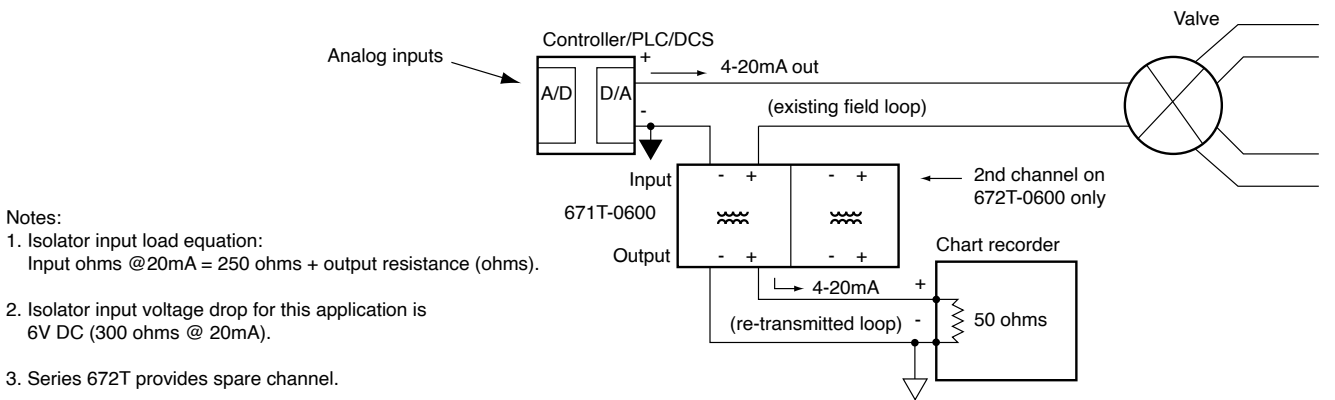
### Application 3

Retransmitting a signal output from a controller or a D/A card.

### Solution

Use either a model [671T-0600](#) (single channel) or [672T-0600](#) (dual channel) transmitter.

**IMPORTANT:** The 671T transmitter is an input loop powered current isolator. Its input voltage burden is normally a function of its output voltage drop and is computed as  $4.9V + I_{out} \times R_{out}$ . If the output load resistance  $R_{out}$  is excessive relative to the input loop voltage, or  $R_{out}$  is open-circuited, the input voltage burden may increase up to the limit of available input loop voltage. Consequently, if there are any loop-powered transmitters connected in series in the 671T input loop, this output loop fault can pinch-off excess input loop voltage, reducing the available voltage to power any series-connected transmitters in the loop, potentially causing them to lose regulation of the input loop current. You could select a different current isolator than 671T, or a different series transmitter that is separately powered to avoid this fault condition.

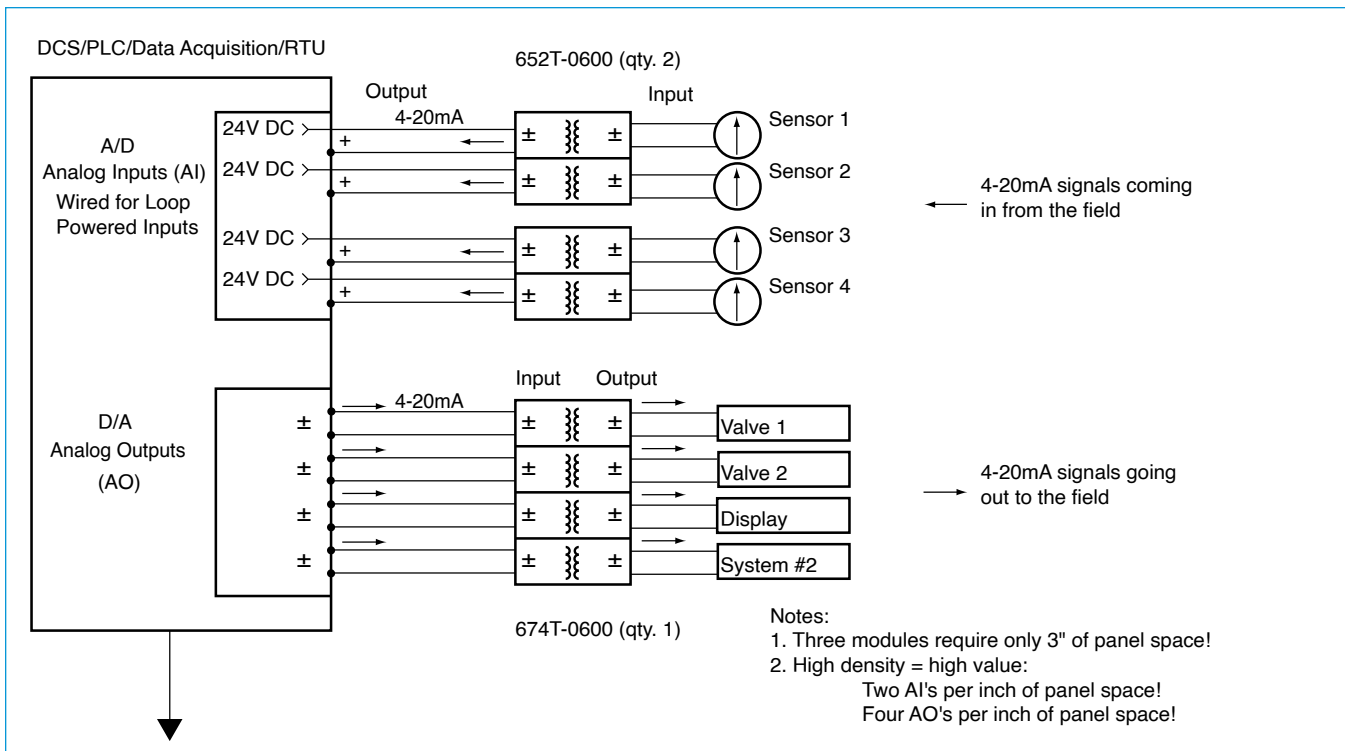


### Application 4

Low-cost, channel-to-channel isolation of 4-20mA signals for controllers.

### Solution

Use either a [652T-0600](#) (dual channel) for A/D cards or a [674T-0600](#) (quad channel) for D/A cards.



## Isolated Transmitters: 600T Series

## 600T Application Notes



## Application 5

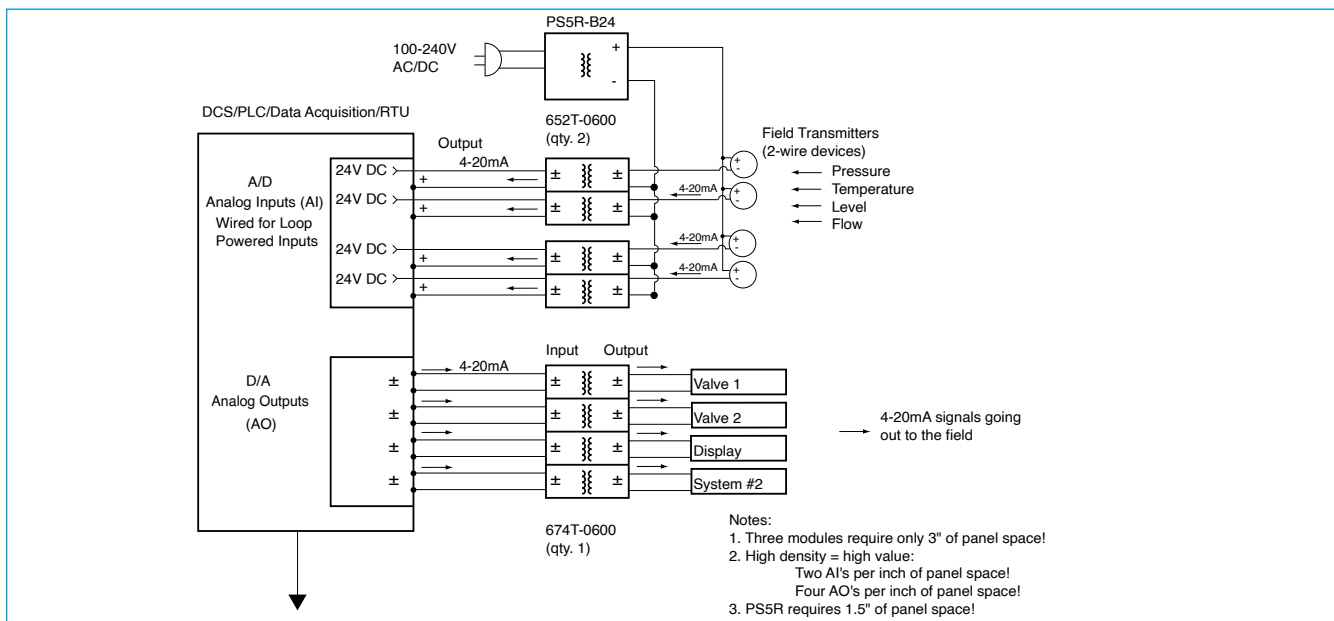
Powering field transmitters (2-wire) and providing low-cost isolation of 4-20mA signals for controllers.

## Solution

Model 652T-0600

Model 674T-0600

Model PS5R-SB24



## Application 6

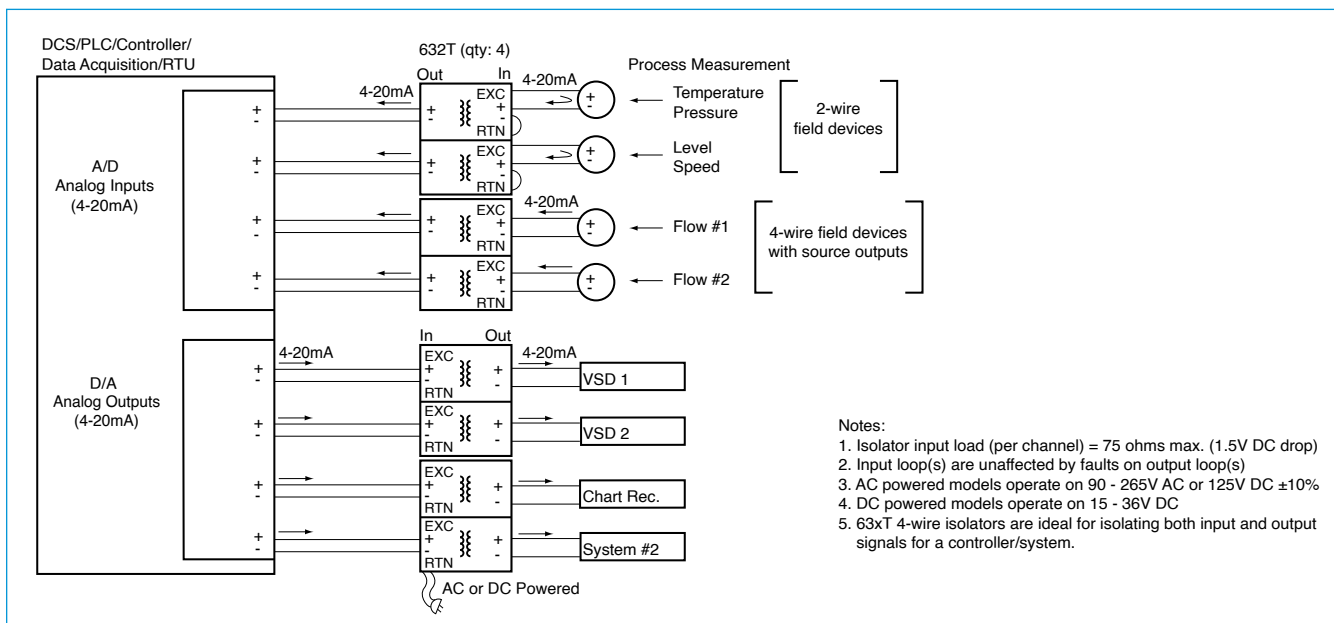
Require 4-wire isolators for input and output signals for controller. Built-in excitation supply needed for some field 2-wire devices.

## Solution

Model **632T-0100** (dual channel, AC powered) or

Model **632T-0500** (dual channel, DC powered).

Model **631T** for single channel 4-wire isolators.



- Notes:
1. Isolator input load (per channel) = 75 ohms max. (1.5V DC drop)
  2. Input loop(s) are unaffected by faults on output loop(s)
  3. AC powered models operate on 90 - 265V AC or 125V DC  $\pm 10\%$
  4. DC powered models operate on 15 - 36V DC
  5. 63XT 4-wire isolators are ideal for isolating both input and output signals for a controller/system.

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# Isolated Transmitters: 600T Series

## 630T Application Notes



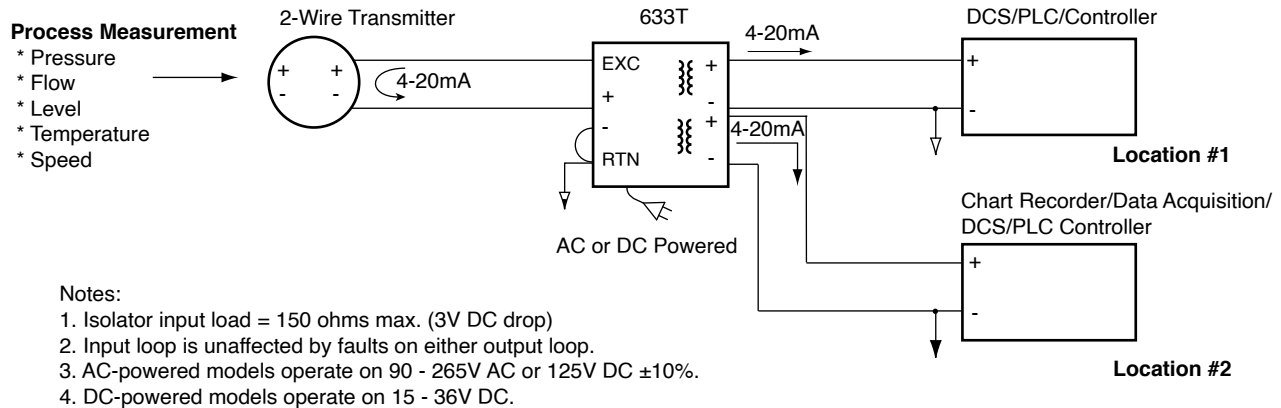
### Application 7

Require a 4-wire isolator "splitter" to excite a field device and re-transmit 4-20mA to two locations.

### Solution

Model [633T-0100 \(AC powered\)](#) or  
Model [633T-0500 \(DC powered\)](#).

Use additional 633T units for re-transmitting to more locations. Install inputs in series with primary 4-20mA loop or the re-transmitted loops as required.



### Application 8

Require 4-wire isolators to retransmit a 4-20mA signal to three locations.

### Solution

Model [633T-0x00 \(splitter\)](#) and  
Model [631T-0x00 \(one channel isolator\)](#).  
(Where x = 1 or 5 for AC or DC power)

