

## Simple Special: $Y = 1/X$

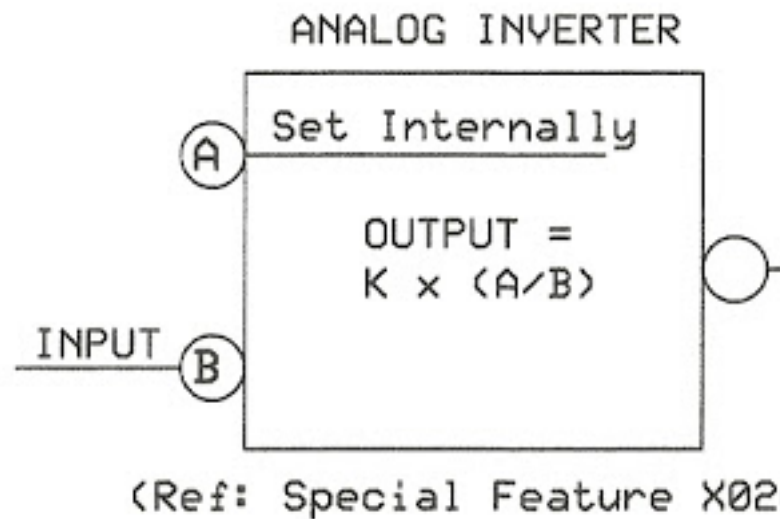
Written by Administrator  
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### Simple Special: $Y = 1/X$

Our customer needed a simple mathematical inverter:  $\text{Output} = (\text{Constant}) \times (1/\text{Input})$ . Our standard product line includes analog division.



We simply disconnected input A and tied it internally to full scale. The key requirement was that the user properly specify the input/output relationship. (Note that at 0% input the output would be  $1/0 = \text{infinity}$ .) This application required:

- Input = 1 volt, Output = 5 volts
- Input = 2 volts, Output = 2.5 volts
- Input = 5 volts, Output = 1 volt

Mathematically this is:  $\text{Output} = 5 / \text{Input}$ .

We tied input A to a fixed internal voltage and set the instrument's gain appropriately.

JH Technology offers add, subtract, multiply, divide, square and square root functions in plug-in modules, DIN-rail transmitters and field mount transmitter/displays.