

DIN-OP-420 Single and dual 4... 20mA loop isolators

Loop powered, do not need additional power supply
Service and 5 years guarantee.



General description

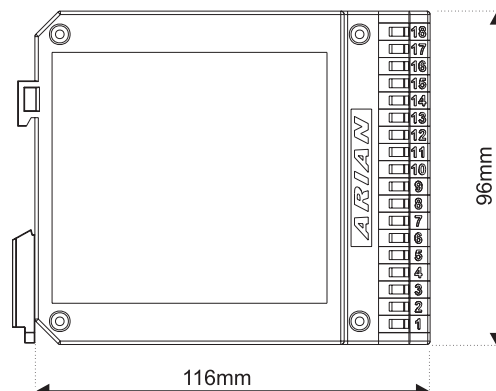
The device generates in its output a 4... 20mA loop identical to the one present in its input but optoisolated.

Galvanic isolation eliminates the problems produced by ground potential differences in the plant and reduces the ones produced by electromagnetic interference. Common applications are to safe barriers and floating ground references for interconnecting several equipment without creating current return conflicts.

The input circuit makes a 3.6V drop on the input loop for feeding a LED and behaves similar to a zener diode. The output current loop feeds the current regulator circuit driven by the photo transistor. This current loop feeding induces a 3.6V drop on the output loop.

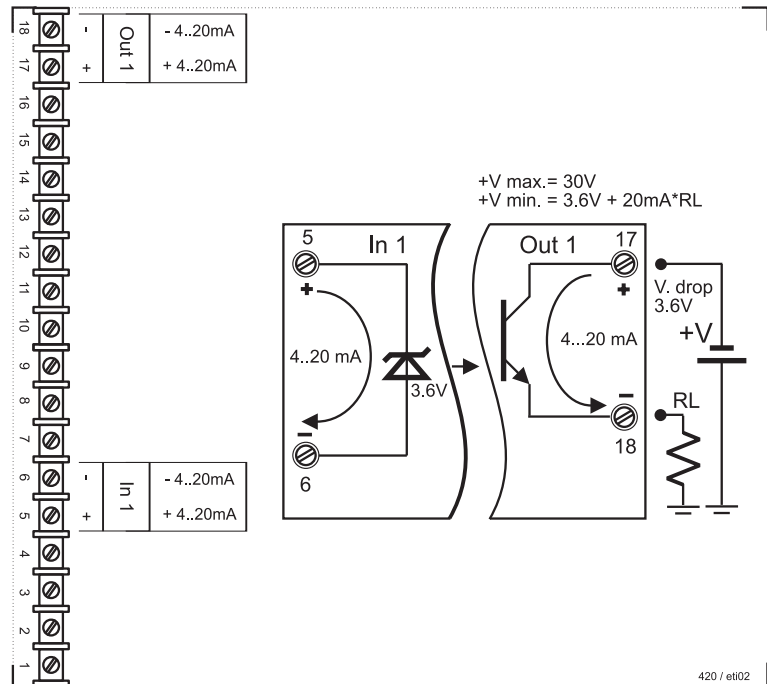
Technical specifications:

Input voltage drop:	3.6V max.
Input short circuit current limit:	40ma max.
Output loop operation voltage:	30V max
Minimum operation voltage:	$3.6 V + 20 mA * R$
Isolation:	4000 V min., linear optocoupler
Temperature stability:	90 ppm / °C max.
Long term stability:	20 ppm / year max.
Initial accuracy:	< 0.1% (20°C)
Material:	Poliester; IP65
Weight:	100 grams.
Operation temperature:	-10 ... 50 °C.
Total dimensions:	23 mm wide, 98 mm heigth , 116 mm deep.

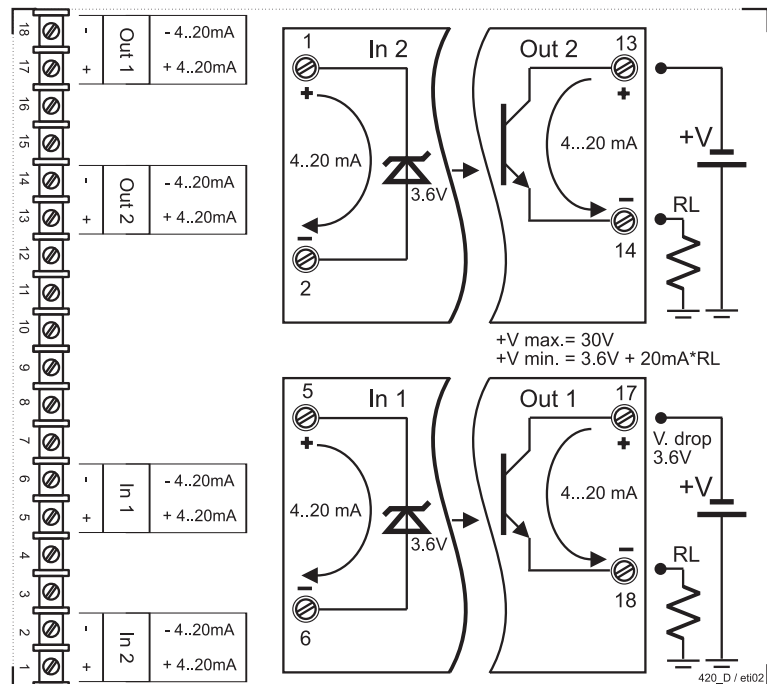


Connections

DIN-OP-420MA-1
Single 4..20mA loop isolator



DIN-OP-420MA-2
Dual 4..20mA loop isolators

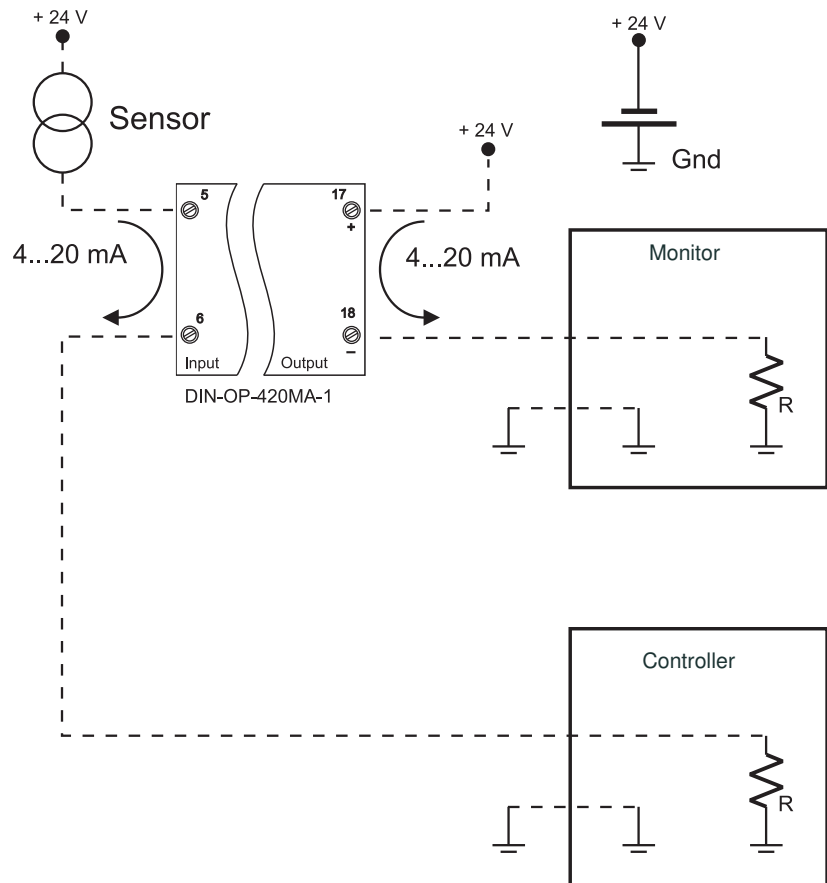


Application example, two common ground instruments 4..20 mA input.

Two instruments, a controller and a monitor need to have 4... 20mA input from the same sensor and simultaneously to have common grounds.

The problem appears with the common ground requirement, because it is impossible to make a 4...20mA loop series connection through both instruments.

The solution is to generate a second identical but isolated current loop with floating ground for the monitor instrument.



Part code:

DIN-OP-420MA-1
DIN-OP-420MA-2

Single 4..20mA loop aislator.
Dual 4..20mA loop aislators.

More information:

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