

DCM 817 PCB-Mounted Loop Isolators

Input: 0-20 mA to 4-20 mA

Output: 0-20 mA to 4-20 mA

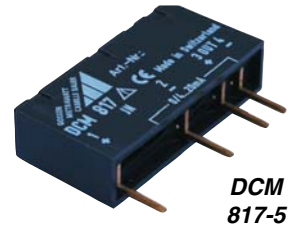
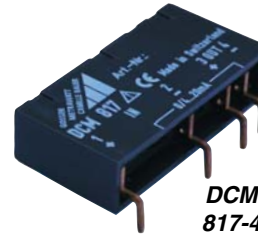
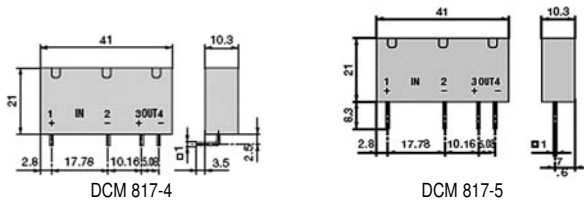
- **Passive Isolator, No Power Supply Required**
- **Available in Any Quantities**
- **Circuit Board Mounting—Straight or 90° Pins**
- **Isolate I/O Signals and Eliminate Ground Loops**

Applications

- **OEM Products & Custom Circuit Assemblies**
- **Applications Where Space is a Premium**

Specifications

Input	0-20 mA to 4-20 mA, 50 mA limit
Voltage Limiter	18 V \pm 5% (with zener diode)
Voltage Drop	Less than 2 V for 500 Ω burden
Output	0-20 mA to 4-20 mA, approx. 30 mA limit
Burden	600 Ω , max.
Accuracy	\pm 0.1% typical at 100 Ω burden
Output Ripple	Less than 20 mVss
Time Constant	Less than 5 milliseconds, approx.
Dielectric Test	500 VAC
Temperature	Operation: -20 to 65°C Storage: -40 to 85°C
Power Supply	Passive, powered by input loop



ISO 9001 : 2000

Description and Features

The **DCM 817** series signal isolators serve to electrically isolate an analog DC signal in the range 0 to 20 mA or 4 to 20 mA. It operates passively, i.e. it does not require a separate power supply. The input signal is converted to an AC waveform, passed through an isolation transformer and converted back to an identical DC signal. This electrically isolates the input and output signal preventing the transfer of interfering voltages and currents. The **DCM 817** series inexpensively solves grounding problems in meshed signal networks.

The signal isolator is available in two versions which differ in the shape of the connection pins. Its modular design enables one or several signal isolators to be mounted on a printed circuit board.

Models

Model	Input	Output	Pins
DCM 817-4	0/4-20 mA	0/4-20 mA	90°
DCM 817-5	0/4-20 mA	0/4-20 mA	Straight

See www.apicb.com for technical data sheet or consult factory.

API maintains a constant effort to upgrade and improve its products. Specifications are subject to change without notice. Consult factory for your specific requirements.

TI 816 Passive DC Signal Isolator

Input: 0-20 mA to 4-20 mA

Output: 0-20 mA to 4-20 mA, 0-10 V to 2-10 V

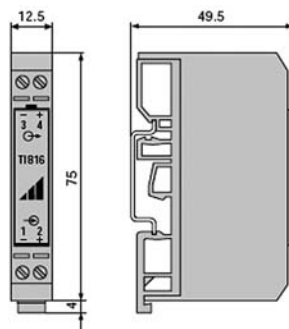
- **No Power Supply Required**
- **Compact Size**
- **Isolate I/O Signals and Eliminate Ground Loops**
- **Low Cost**

Applications

- **Multi-Channel Isolation Blocks**
- **DIN Rail Applications Where Space is a Premium**

Specifications

Input	0-20 mA to 4-20 mA, 50 mA limit
Voltage Limiter	18 V \pm 5% (with zener diode)
Voltage Drop	Less than 2 V for 500 Ω burden
Output	0-20 mA to 4-20 mA, 0-10 V to 2-10 V
Burden	Current: 600 Ω , max. Voltage: 500 Ω , max.
Accuracy	\pm 0.1% at 20 mA, \pm 0.2 V at 10 V typical
Time Constant	Less than 5 milliseconds, approx.
Dielectric Test	500 VAC
Ambient	Operation -20 to 65°C Storage -40 to 85°C
Power Supply	Passive, powered by input loop



DIN Rail Mount
Only 0.5" (12.5 mm) Wide!

ISO 9001 : 2000



Description and Features

The **TI 816** signal isolator serves to electrically isolate an analog DC signal in the range 0 to 20 mA which, depending on the version, is then converted to a current or voltage signal (0 to 20 mA or 0 to 10 V). The input signal is converted to an AC waveform, passed through an isolation transformer and converted back to an identical DC signal. This electrically isolates the input and output signal preventing the transfer of interfering voltages and currents. It operates passively and does not require a separate power supply, but derives the little auxiliary energy it needs from the DC input signal.

Its narrow casing is designed for mounting on a standard DIN rail. A number of signal isolators can be mounted together to form a compact isolator block.

Model	Input	Output
TI 816-5110	0-20 mA to 4-20 mA	0-20 mA to 4-20 mA
TI 816-5111	0-20 mA to 4-20 mA	0-10 V to 2-10 V

See www.apicb.com for technical data sheet or consult factory.