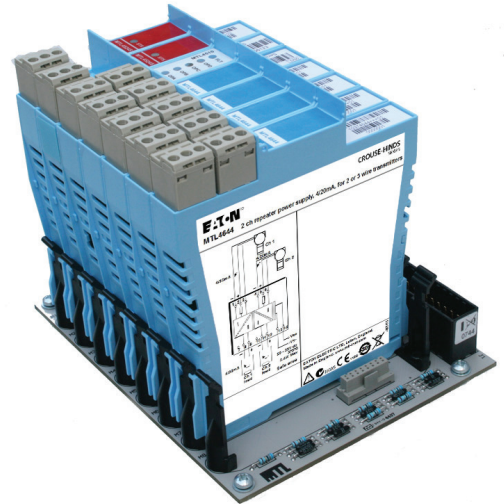


MTL4600 range

Isolating interfaces

- **3-port isolation as standard**
- **Highest module/channel packing densities**
- **Low power dissipation**
- **Quick install and release mechanism**
- **Multi-channel I/O modules**
- **Broken line and earth-fault protection**



Isolation—protecting your system **Designing your plant with good clean earth systems is not always possible.**

Poor ground conductivity, large process areas and heavy electrical machinery, all contribute to increased noise. This noise is induced or conducted into adjacent wiring, which in turn degrades the quality of the signals passing through the cables. Without isolation this noise is superimposed on the process signal causing a loss of accuracy, poor control and possibly failures or false trips.

Many control systems, PLCs and safety systems do not have full isolation between channels. In compact well defined plant layouts this is acceptable, but these are not always guaranteed. To avoid interference between channels, isolation is the solution.

The MTL4600 range of isolators offer reduced risk and greater protection to the system, with all the advantages of a common design approach for both IS and non-IS signals.

System Solutions

Building on the base of the MTL4500 range of solutions, the MTL4600 offers a high level of signal isolation for installations where multiple loops on a common connection are not desirable.

Signal isolation provides excellent protection against surges, common faults and noisy environments. It also eliminates the risk of earth loops between different areas of the plant, which, if not isolated, can cause significant errors or failures under fault conditions.

MTL4600 isolators are fully compatible with all existing backplanes used with MTL4500 range and many control systems. The form factor and signal types offer the user a common approach for both IS and non-IS signals.

The backplane mounting MTL4600 range is designed with system vendors in mind for "project-focussed" applications such as Distributed Control System (DCS), Emergency Shutdown Systems (ESD) and Fire and Gas monitoring (F&G).

The reduced power consumption and high efficiency enable high signal density to be achieved together with improved freedom in cabinet layout and design. Easy integration with the input/output assemblies of control or safety instrumentation systems not only simplifies project engineering but also reduces installation and maintenance costs.

A multiway connector to the backplane provides safe-area and power supply connections, while hazardous-area connections plug into the front of the module, simplifying installation and maintenance and reducing time, cost, and the risk of errors.

Line fault detection (LFD) facilities are provided across the range of I/O functions; on the switch/proximity detectors, the MTL4623 solenoid/alarm drivers and the isolating drivers. Analogue input units such as the MTL4641 provide line fault detection by repeating o/c or s/c currents to the control system.

Status LEDs, configuration switches and ports are located on the top or side of individual modules, as appropriate, for easy access.

ISOLATOR FUNCTION SELECTOR

| | | Channels | Function |
|--------------------------|--|----------|---|
| Digital Input | | | |
| MTL4604 | | 1 | switch/prox input, phase reversal + LFD |
| MTL4610 | | 4 | switch/prox input, solid-state output |
| MTL4611 | | 1 | switch/prox input, c/o relay output |
| MTL4613 | | 2 | switch/prox input, solid-state output |
| MTL4614 | | 1 | switch/prox input, relay + LFD alarm |
| MTL4614D | | 1 | switch/prox input, dual output relay |
| MTL4616 | | 2 | switch/prox input, relay |
| MTL4617 | | 2 | switch/prox input, relay + LFD alarm |
| MTL4619L | | 1 | 24V/48V digital input |
| MTL4619H | | 1 | 110Vac/125Vdc digital input |
| Digital Output | | | |
| MTL4621 | | 1 | loop powered solenoid driver |
| MTL4623 | | 1 | solenoid driver with LFD alarm |
| MTL4623L | | 1 | loop powered solenoid driver with LFD alarm |
| MTL4623R | | 1 | solenoid driver with reverse LFD alarm |
| MTL4624 | | 1 | switch operated solenoid driver |
| MTL4624S | | 1 | switch operated solenoid driver, 24V override |
| MTL4626 | | 2 | switch operated relay |
| MTL4627 | | 1 | 24V 250mA digital output |
| MTL4628 | | 1 | Relay output |
| Pulse Output | | | |
| MTL4632 | | 1 | pulse isolator, digital or analogue output |
| Analogue Input | | | |
| MTL4641 | | 1 | 2/3 wire transmitter repeater |
| MTL4641A | | 1 | transmitter repeater, passive input |
| MTL4641AS | | 1 | transmitter repeater, passive input, current sink |
| MTL4641S | | 1 | 2/3 wire transmitter repeater, current sink |
| MTL4644 | | 2 | 2/3 wire transmitter repeater |
| MTL4644A | | 2 | transmitter repeater, passive input |
| MTL4644AS | | 2 | transmitter repeater, passive input, current sink |
| MTL4644S | | 2 | 2/3 wire transmitter repeater, current sink |
| MTL4644D | | 1 | 2/3 wire transmitter repeater, dual output |
| Analogue Output | | | |
| MTL4646 | | 1 | 4-20mA smart isolating driver + LFD |
| MTL4646Y | | 1 | 4-20mA smart isolating driver + oc LFD |
| MTL4649 | | 2 | 4-20mA smart isolating driver + LFD |
| MTL4649Y | | 2 | 4-20mA smart isolating driver + oc LFD |
| Temperature Input | | | |
| MTL4675 | | 1 | temperature converter, THC or RTD |
| MTL4676-RTD | | 2 | temperature converter, RTD |
| MTL4676-THC | | 2 | temperature converter, THC |



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