PULS does it again:
practical, versatile and reliable like
the SilverLine – yet small like no other.

MiniLine MLY02.100

Decoupling Module

- Decoupling Diode to produce redundant applications or to decouple power sources from each other as well as from the load
- DC 10 - 60V
- 0 - 10A
- Hazardous Location Class I Div. 2 (UL 1604)
- Mounted and connected in record time, no tools required
- usable everywhere
- Tiny: W x H x D = 45 x 75 x 91mm

PULS GmbH, Arabellastrasse 15, D-81925 Munich
Tel. +49.(0)89.9278-244, Fax: +49.(0)89.9278-299
sales@puls-power.com, http://www.puls-power.com

Mini is more.

Technical Data MLY02.100 Decoupling Module

Spring Clamps

Concept

The decoupling module is a dual input diode with 2 inputs and one output in a MiniLine housing, suitable for various applications such as

- to produce redundant applications
- to decouple power sources from each other as well as from the loads e.g. separation of sensitive loads from the power bus, design buffered branches, block reverse power etc.

For further application details and wiring schemes please check our web page www.puls-power.com => search: MLY02 => applications

Decoupling Part

Input #1	DC 10-60V, 0-10A
Input #2	DC 10-60V, 0-10A
Output	V_{in} -0,9V (typ.), 0-10A Ensure, that the max. output current does not exeed 16A. Check short circuit current of power sources.
Peak current	125A for max. 10ms
Reverse current	<0,6mA per diode

When both inputs are used (Dual Input Mode, Fig. 1) the output current results as the sum of the two inputs. If used with only one input (Single Input Mode, Fig. 2), both positive input terminals can be linked. Negative poles do not have to be used.

Connection	by Spring Clamp terminals; uniformly firm hold, vibration-resistant and maintenance-free: 2 terminals per output
Connector size range	
• flexible cable	0.3-2.5mm^2 (28-12 AWG)
• solid cable	0.3-4mm^2 (28-12 AWG) Ferrules admissible
• Wire strip length	6mm (0.24in) recommended

Construction, Mechanics, Installation

Robust plastic housing (US Patent No. D442, 923S), fine ventilation grid on three housing sides to keep out small parts (e.g. screws), IP20

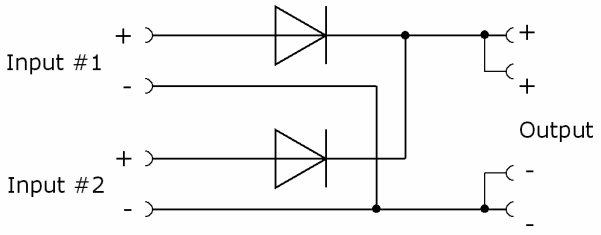
Dimensions and weight	
• B x H x T	45mm x 75mm x 91mm (+ DIN Rail)
• Weight	136g
DIN-rail mounting	Easy snap-on mounting onto the DIN-rail (TS35/7,5 or TS35/15). Unit sits safely and firmly on the rail; no tools required even to remove
Mounting orientation	
Ventilation/Cooling	Convection cooling, no fan required
• Free space f. cooling	25mm above and beyond recommanded

Design details – for your advantage:

- All terminals are easy to reach as mounted on the front panel.
- Input and output are strictly apart from each other (input below, output above) and so cannot be mixed up
- Mounting *and* connection do not require any screwdriver

→ Easy, quick, durable and reliable installation

Block Diagram



Wiring Scheme

Fig. 1: Dual Input Mode

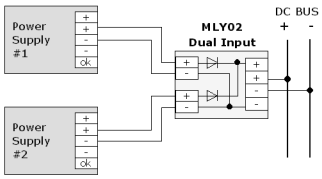
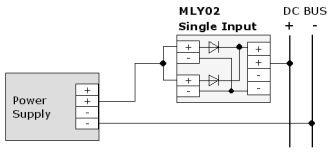


Fig. 2: Single Input Mode



Environmental Data, Safety

Ambient temperature range (measured 25mm below unit)

• storage, transport	-40°C ... +85°C
• operation	-40°C ... +60°C (70°C, for derating see diagram below)
Humidity	max. 95% (without condensation)
Prot. class	IP20 (EN 60529)
Fusing	If sources with higher current capability are used, protect the inputs with a fuse or circuit breaker.
Inputs or output	10A slow blowing circuit breaker, Char. B recommended
Approvals	UL60950 recognized and UL508 LISTED Hazardous Location Class I Div. 2 (UL 1604)

Derating Diagram

Derating characteristic V_{out}/T_{amb})