



## Protection Module for Surge Protection Barrier

### M-LB-4282.M

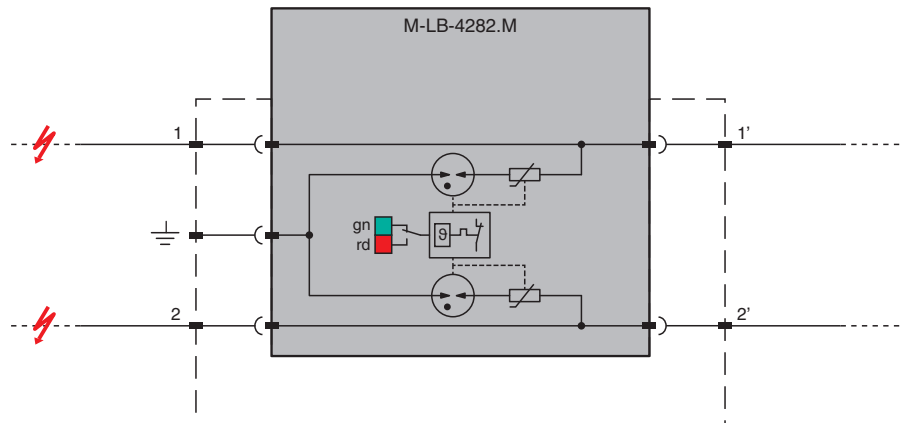
- Protection module for 2 signal lines
- Nominal voltage 230 V
- Protection module for non-grounded signal lines
- Max. surge current (8/20  $\mu$ s) 6 kA
- Uninterruptable operation (auto reset)
- Status indication
- Mounting on base module, pluggable
- Up to SIL 3 acc. to IEC/EN 61508

# CE SIL3

## Function

The protection module limits induced transients of different causes, e. g. lightning or switching operations. The limitation is achieved by diverting the current to earth and limiting the signal circuit voltage during the duration of the overvoltage pulse. The device is a spare part for the corresponding 2-part surge protection barrier. The device is not to be used as a stand-alone device. The device has a status indication at the front. The device can be replaced without tools by locking levers.

## Connection



Zone 2

## Technical Data

### General specifications

Number of protected signal lines	2
Topology	non-grounded

### Functional safety related parameters

Safety Integrity Level (SIL)	SIL 3
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### Electrical specifications

Connection	via base module
Leakage current	< 50 nA bei $U_c$ , line-line < 50 nA bei $U_c$ , line-earth
Nominal voltage	230 V
Maximum continuous operating voltage	$U_c$ 250 V AC and 320 V DC
Nominal load current	$I_L$ 3 A at 80 °C (176 °F)

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## Technical Data

Series resistance		0 $\Omega$ per line
Impulse discharge current (10/350 $\mu$ s)	$I_{imp}$	0.5 kA per line
Nominal discharge current (8/20 $\mu$ s)	$I_n$	3 kA per line
Total discharge current (8/20 $\mu$ s)	$I_{total}$	6 kA
Voltage protection level	$U_p$	max. 1100 V line-earth for nominal discharge current $I_n$
Impulse reset time		< 30 ms
Cut-off frequency	$f_G$	200 MHz , line-line
<b>Indicators/settings</b>		
Display elements		status display operating state (green) fault indication (red)
<b>Conformity</b>		
Degree of protection		IEC 60529:2013
Functional safety		IEC/EN 61508:2010
Surge protective devices for low voltage		EN 61643-21:2001+A1:2009+A2:2013 IEC 61643-21:2001+A1:2008+A2:2012
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 80 °C (-40 ... 176 °F)
Storage temperature		-40 ... 80 °C (-40 ... 176 °F)
Relative humidity		max. 95 % , without condensation
Corrosion resistance		acc. to ISA-S71.04, severity level G3
<b>Mechanical specifications</b>		
Degree of protection		IP20
Connection		via base module
Material		
Housing		Polyamide PA 6.6
Mass		approx. 14 g
Dimensions		6 x 45 x 54 mm (0.24 x 1.77 x 2.15 inch) (W x H x D)
Mounting		pluggable in base module for mounting on 35 mm DIN mounting rail
<b>Data for application in connection with hazardous areas</b>		
EU-type examination certificate		
Internal capacitance	$C_i$	
<b>General information</b>		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

## Assembly

### Front view

