

# Technical data sheet

## Medium and fine protection FRD for two-core systems 12 V

Item number: 5098506



Surge protection for use in measurement and control technology

- Medium and fine protection
- Standard design for double core systems
- Two-stage protection circuit
- With installation-friendly, screwless connection terminals
- In space-saving 17.5 mm grid
- With ohmic decoupling in the longitudinal branch

Application: Universal use on any 35 mm DIN profile rail in every commercially available distributor housing.



### Master data

Item number	5098506
Type	FRD 12
Description 1	Lightning barrier
Description 2	with decoupling resistance
Manufacturer	OBO
Dimension	12V AC
Smallest sales unit	1
Unit of quantity	Piece
Weight	5.1 kg
Weight unit	kg/100 pc.

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Arrestor monitoring	no
Connection cross-section, flexible, max.	2.5 mm <sup>2</sup>
Connection cross-section, flexible, min.	0.14 mm <sup>2</sup>
Connection cross-section, multi-wire, max.	2.5 mm <sup>2</sup>
Connection cross-section, multi-wire, min.	0.14 mm <sup>2</sup>
Connection cross-section, rigid, max.	2.5 mm <sup>2</sup>
Connection cross-section, rigid, min.	0.14 mm <sup>2</sup>
Number of poles	2
Insertion loss	3 dB @ 690 kHz dB
Earthing via:	Terminal
Explosion-tested version	no
Telecommunications contact	no
Total discharge current (10/350)	D1: 3
Total discharge current (8/20)	10 kA
Cut-off frequency	0.69 MHz
Maximum continuous voltage AC	9
Maximum continuous voltage DC	13
Lightning impulse current	1.5 kA
Insulation resistance	>1 MΩ
Capacity (wire-wire)	<10 nF
Capacity (wire-earth)	<1 nF
Kategorie	Type 1+2+3 / D1+C2+C1
Lightning protection zone LPZ	0→3
Mounting type	DIN rail 35 mm
Nominal discharge current (8/20 μs)	5 kA
Nominal load current AC	0.14
Nominal load current DC	0.2 A
Nominal voltage	12 V
Testing standard	IEC 61643-21
Shielding connection available	no
Protection rating	IP20
Protection level wire-wire	<30 V
Protection level wire-earth	<600 V
Series resistance per wire	15 Ω ± 10 %
SPD to IEC 61643-21	Class I+II+III / D1+C2+C1
Plug-in system	Terminal
Impulse durability wire-wire	C1: 1 kV / 0,5 kA (8/20μs)
Impulse durability wire-earth	C2: 10 kV / 5 kA (8/20μs)
Division unit TE (17.5 mm)	1
Permitted temperature range, max.	80 °C
Permitted temperature range, min.	-40 °C
Approvals	UL