



## HT-D 1/48 Xseries

- Designed for the protection of data and communication lines against longitudinal and transverse surge effects.
- Contains both 1st and 2nd stage of protection.
- Suitable for use in industrial applications, especially in low-voltage ESS, FDAS systems and also in measurement and control systems.

Type	HT-D 1/48 Xseries	
Testing category according to IEC 61643-21:2000 and EN 61643-21:2001	C1, C2, C3, D1	
Number of pairs	1	
Connector type	Two-pole screw plug-in terminal block	
Rated operating DC voltage	$U_N$	0 ÷ 48 V
Maximum continuous operating voltage DC	$U_C$	57.6 V
Rated load current	$I_L$	0.1 A
Maximum discharge current (8/20)	$I_{max}$	10 kA
C2 Nominal discharge current (8/20)	$I_n$	1 kA
C2 Voltage protection level at $I_n$	$U_p$	< 160 V
C3 Voltage protection level at 1 kV/μs	$U_p$	< 66 V
D1 Impulse discharge current (10/350) line/PE	$I_{imp}$	2.5 kA
D1 Total impulse discharge current (10/350)	$I_{Total}$	5 kA
Response time	$t_A$	< 30 ns
Data rate	1 Mbit/s	
Bandwidth	B	0 ÷ 1 MHz
Series impedance per line	2.2 Ω	
Parasitic capacitance	C	< 1.5 nF
Lightning protection zone	LPZ 0-1, LPZ 1-2, LPZ 2-3	
Housing material	AlMgSi (EN AW 6060)	
Degree of protection	IP20	
Operating temperature	θ	-40 ÷ 70 °C
Clamp fastening range (solid conductor)	0.2 ÷ 2.5 mm <sup>2</sup>	
Tightening moment	0,5 Nm	
Installation	On DIN rail 35 mm	
Operating position	Any	
Remote signalling	No	
Pluggable version	No	
<b>Designed according to standards</b>		
Requirements and test methods for SPDs connected to telecommunications and signalling networks	IEC 61643-21:2000	
<b>Application standards</b>		
Protection against lightning	IEC 62305:2010	

## Ordering, packaging and additional data

Mass	m	95 g
Mass (including the packaging)	m	109 g
Packaging dimensions (H x W x D)		45 x 102 x 74 mm
Packaging value	V	0.34 dm <sup>3</sup>
Customs tariff no.		85363010
EAN code		8590681111864
<b>Art. number</b>		<b>57 008</b>



The link in the QR code leads to the online presentation of the HT-D 1/48 Xseries. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit [www.hakel.com](http://www.hakel.com)



## Internal diagram

