

HDSP RS485

- Two-stage surge protection of connected RS485 bus device in Half-Duplex configuration.
- They are installed prior to the protected equipment and at the interface of LPZs 1 – 2 and higher.
- They increase the EMC level of the connected equipment against switching and atmospheric transients tested according to IEC 61000-4-2 (ESD level 4), IEC 61000-4-4 (EFT level 4) and IEC 61000-4-5 (shock pulse level X = 6 kV).
- The connection of the module allows to use the operating range of bus drivers according to the TIA/EIA-485-A standard in the range of -7 V to +12 V (common-mode voltage range).
- Connecting the module allows you to use the full 10 Mbps bus speed according to the TIA/EIA-485-A standard.
- High-speed current protection of data line X1-2, X3-4 200 mA.
- They provide cable shield protection by limiting pulse overvoltage through a built-in 90 V gas discharge tube.

Type		HDSP RS485
Testing category according to IEC 61643-21:2000 and EN 61643-21:2001		C2, C3, B3
Number of pairs		1
Connector type		Screw terminals
Maximum continuous operating voltage DC of data line X1-5, X3-5	U_C	-7 ÷ 12 V
Maximum continuous operating voltage DC X5-9, X7-9	U_C	70 V
Rated load current of data line X1-2, X3-4	I_L	0.2 A
Data link current protection at 25 °C	I_{trip}	0.2 A
Max. response time for data link protection	t_{block}	1 μ s
C2 Nominal discharge current (8/20)	I_n	5 kA
C2 Voltage protection level X2-6, X4-6 at $+I_n$	U_p	< 20 V
C2 Voltage protection level X2-6, X4-6 at $-I_n$	U_p	> -12 V
C2 Voltage protection level X2-4 at I_n	U_p	< 26 V
C3 Voltage protection level X2-6, X4-6 at +1 kV/ μ s	U_p	< 17 V
C3 Voltage protection level X2-6, X4-6 at -1 kV/ μ s	U_p	> -10 V
C3 Voltage protection level X2-4 at 1 kV/ μ s	U_p	< 25 V
B3 Voltage protection level X6-10, X8-10 at 100 V/ μ s	U_p	< 550 V
C3 Voltage protection level X6-10, X8-10 at 1 kV/ μ s	U_p	< 700 V
Serial resistance of data line X1-2, X3-4	R	8.6 Ω
Capacitance X2-4 at 0 V	C	40 pF
Limiting transmission frequency S21 for $Z_0 = 120 \Omega$	f_c	50 MHz
Lightning protection zone		LPZ1, LPZ2, LPZ3
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	θ	-40 ÷ 70 °C
Clamp fastening range (solid conductor)		0.2 ÷ 4 mm ²
Tightening moment		0,5 Nm

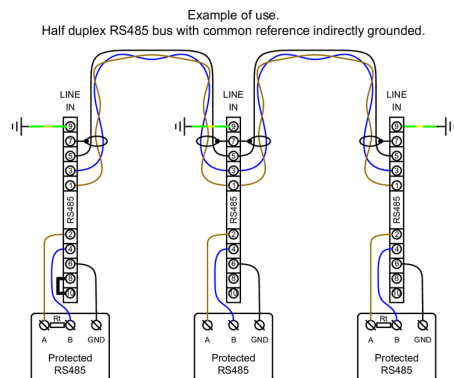
Type		HDSP RS485
Installation		On DIN rail 35 mm
Operating position		Any
Modular design		No
Remote signalling		No
Designed according to standards		
Requirements and test methods for SPDs connected to telecommunications and signalling networks		IEC 61643-21:2000
Safety of Flammability of Plastic Materials		UL 94
Application standards		
Protection against lightning		IEC 62305:2010
Ordering, packaging and additional data		
Mass	m	68 g
Mass (including the packaging)	m	85 g
Packaging dimensions (H x W x D)		52 x 108 x 83 mm
Packaging value	V	0.47 dm ³
ETIM group		EG000021
ETIM class		EC000943
Customs tariff no.		85363010
EAN code		8590681185780
Art. number		56 054



The link in the QR code leads to the online presentation of the **HDSP RS485**. 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



Application wiring diagram (installation)



Internal diagram

