



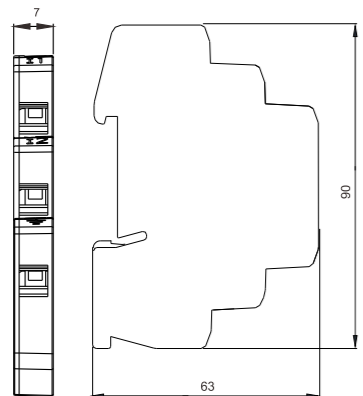
Signal surge protector YZ HA-5WS



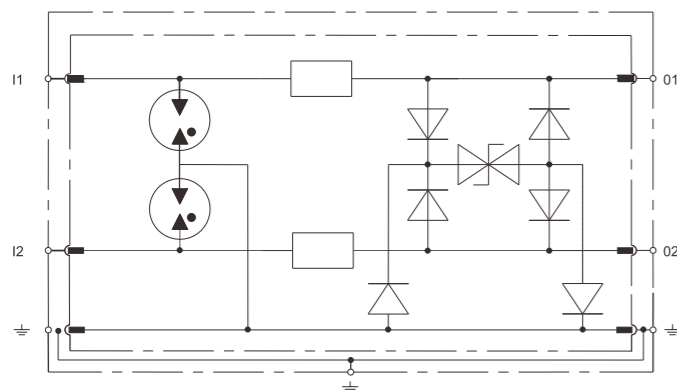
Description

DIN rail, compact SPD with slim size and single pair lines for protecting high-frequency transmission system at boundaries from LPZ 0B-2 and higher

Dimension drawing



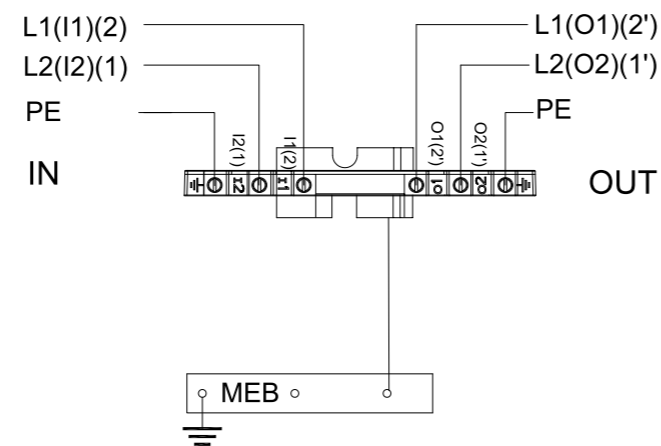
Circuit diagram



Features

- Integrated module
- Low residual pressure
- long lasting
- Small and ultra-thin

Wiring diagram



Electrical

Product model	YZ HA-5WS
Test according to	IEC 61643-21/EN 61643-21/GB/T18802.21
SPD Class	C2,D1
Number of ports	2
Technology	GDT & TVS
Nominal Voltage (U_N)	5 V
Max. continuous operating d.c. voltage (U_C)	6 V
Max. continuous operating a.c. voltage (U_C)	4.2 V
Rated load current (45°C)(I_L)	1.0 A
D1 lightning impulse current (10/350 μ s) per line (I_{imp})	2 kA
C2 Nominal discharge current (8/20 μ s) per line (I_n)	10 kA
C2 Nominal discharge current (8/20 μ s) total (I_n)	20 kA
Voltage protection level (I_n C2)(U_p)	25 V (line-line), 25 V (line-PE)
Voltage protection level (1 kV/ μ sC3) (U_p)	16 V (line-line), 16 V (line-PE)
Series impedance perline	1.0 ohm
Capacitance	≤ 25 nF (line-line), ≤ 25 nF (line-PE)
Cut-off frequency line-PE	100 MHz

Mechanical

Method of mounting	35 mm DIN rail
Enclosure dimensions (H×W×D)	90 mm x 7 mm x 63 mm
Cross-sectional area (max.)	flexible: 2.5 mm ²
Cross-sectional area (min.)	0.5 mm ²
Stripping length terminals	5-7 mm
Torque contacts	0.3 N*m

Environmental

Location category	Indoor only
Operation temperature range (T_u)	-40 °C...+85 °C
Relative humidity	≤ 95 % (No condensation)
Operation altitude	≤ 4 km
Degree of protection	IP 20
Enclosure material	Thermoplastic, UL 94 V-2
Product code	913004



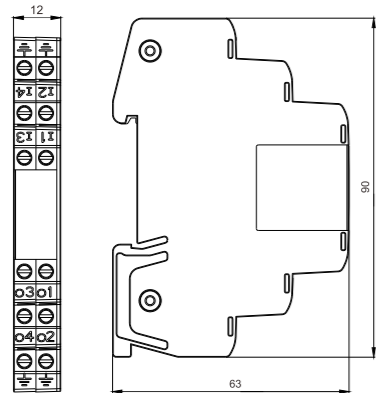
Signal surge protector YZ HA-5WS-2



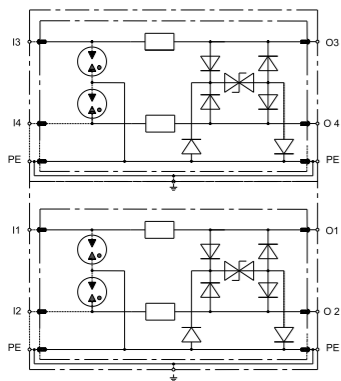
Description

DIN rail, compact SPD with slim size and single pair lines for protecting high-frequency transmission system at boundaries from LPZ 0B-2 and higher

Dimension drawing



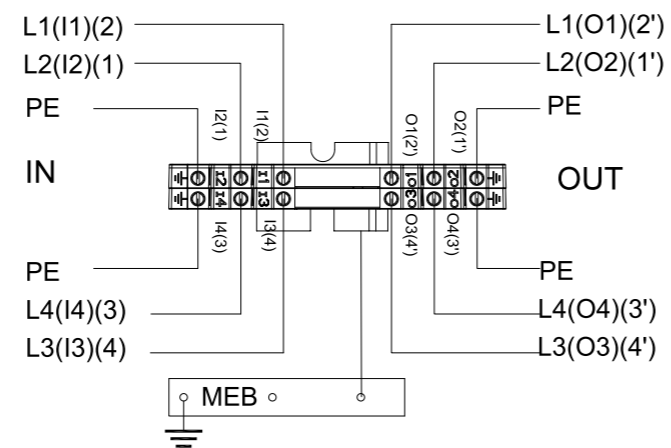
Circuit diagram



Features

- Integrated module
- Low residual pressure
- long lasting
- Small and ultra-thin

Wiring diagram



Electrical

Product model	YZ HA-5WS-2
Test according to	IEC 61643-21/EN 61643-21/GB/T18802.21
SPD Class	C2,D1
Number of ports	2
Technology	GDT & TVS
Nominal Voltage (U_N)	5 V
Max. continuous operating d.c. voltage (U_c)	6 V
Max. continuous operating a.c. voltage (U_c)	4.2 V
Rated load current (45°C)(I_L)	1.0 A
D1 lightning impulse current (10/350 μ s) per line (I_{imp})	2 kA
C2 Nominal discharge current (8/20 μ s) per line (I_n)	10 kA
C2 Nominal discharge current (8/20 μ s) total (I_n)	20 kA
Voltage protection level (I_n C2)(U_p)	25 V (line-line), 25 V (line-PE)
Voltage protection level (1 kV/ μ sC3) (U_p)	16 V (line-line), 16 V (line-PE)
Series impedance perline	1.0 ohm
Capacitance	≤ 25 nF (line-line), ≤ 25 nF (line-PE)
Cut-off frequency line-PE	100 MHz

Mechanical

Method of mounting	35 mm DIN rail
Enclosure dimensions (H×W×D)	90 mm x 12 mm x 63 mm
Cross-sectional area (max.)	flexible: 2.5 mm ²
Cross-sectional area (min.)	0.5 mm ²
Stripping length terminals	5-7 mm
Torque contacts	0.3 N*m

Environmental

Location category	Indoor only
Operation temperature range (T_u)	-40 °C...+85 °C
Relative humidity	≤ 95 % (No condensation)
Operation altitude	≤ 4 km
Degree of protection	IP 20
Enclosure material	Thermoplastic, UL 94 V-2
Product code	913009



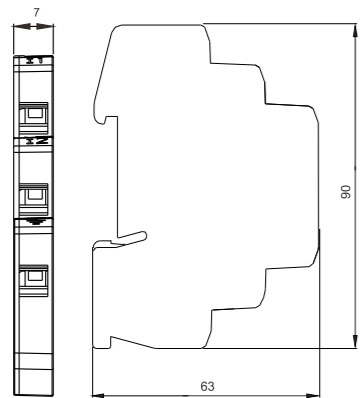
Signal surge protector YZ HA-12WS



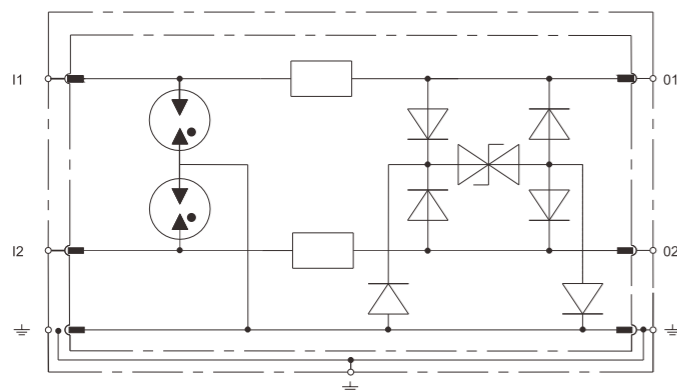
Description

DIN rail, compact SPD with slim size and single pair lines for protecting high-frequency transmission system at boundaries from LPZ 0B-2 and higher

Dimension drawing



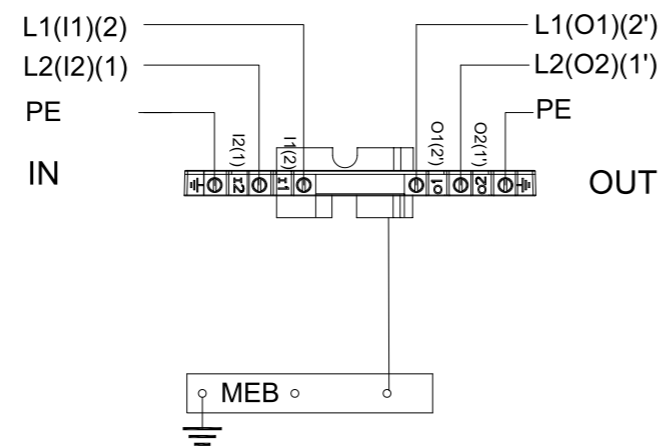
Circuit diagram



Features

- Integrated module
- Low residual pressure
- long lasting
- Small and ultra-thin

Wiring diagram



Electrical

Product model	YZ HA-12WS
Test according to	IEC 61643-21/EN 61643-21/GB/T18802.21
SPD Class	C2,D1
Number of ports	2
Technology	GDT & TVS
Nominal Voltage (U_N)	12 V
Max. continuous operating d.c. voltage (U_c)	15 V
Max. continuous operating a.c. voltage (U_c)	10.6 V
Rated load current (45°C)(I_L)	1.0 A
D1 lightning impulse current (10/350 μ s) per line (I_{imp})	2 kA
C2 Nominal discharge current (8/20 μ s) per line (I_n)	10 kA
C2 Nominal discharge current (8/20 μ s) total (I_n)	20 kA
Voltage protection level (I_n C2)(U_p)	45 V (line-line), 45 V (line-PE)
Voltage protection level (1 kV/ μ sC3) (U_p)	28 V (line-line), 28 V (line-PE)
Series impedance perline	1.0 ohm
Capacitance	≤ 25 nF (line-line), ≤ 25 nF (line-PE)
Cut-off frequency line-PE	100 MHz

Mechanical

Method of mounting	35 mm DIN rail
Enclosure dimensions (H×W×D)	90 mm x 7 mm x 63 mm
Cross-sectional area (max.)	flexible: 2.5 mm ²
Cross-sectional area (min.)	0.5 mm ²
Stripping length terminals	5-7 mm
Torque contacts	0.3 N*m

Environmental

Location category	Indoor only
Operation temperature range (T_u)	-40 °C...+85 °C
Relative humidity	≤ 95 % (No condensation)
Operation altitude	≤ 4 km
Degree of protection	IP 20
Enclosure material	Thermoplastic, UL 94 V-2
Product code	913004



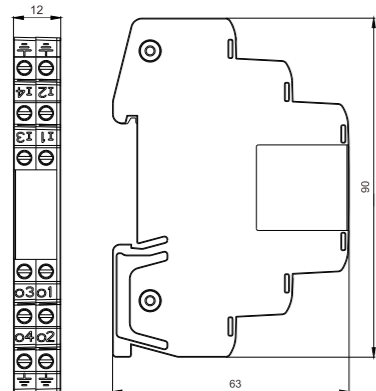
Signal surge protector YZ HA-12WS-2



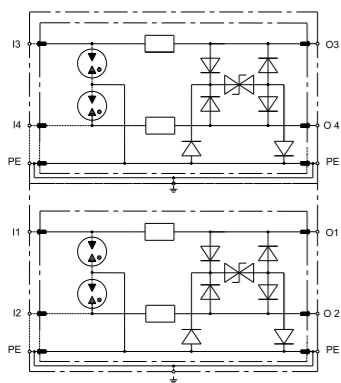
Description

DIN rail, compact SPD with slim size and single pair lines for protecting high-frequency transmission system at boundaries from LPZ 0B-2 and higher

Dimension drawing



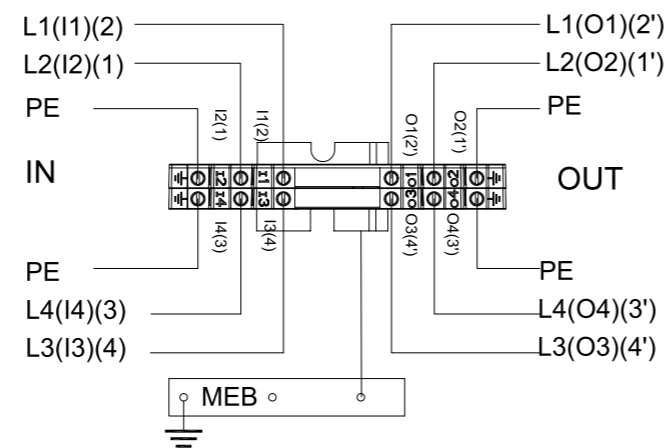
Circuit diagram



Features

- Integrated module
- Low residual pressure
- long lasting
- Small and ultra-thin

Wiring diagram



Electrical

Product model	YZ HA-12WS-2
Test according to	IEC 61643-21/EN 61643-21/GB/T18802.21
SPD Class	C2,D1
Number of ports	2
Technology	GDT & TVS
Nominal Voltage (U_N)	12 V
Max. continuous operating d.c. voltage (U_c)	15 V
Max. continuous operating a.c. voltage (U_c)	10.6 V
Rated load current (45°C)(I_L)	1.0 A
D1 lightning impulse current (10/350 μ s) per line (I_{imp})	2 kA
C2 Nominal discharge current (8/20 μ s) per line (I_n)	10 kA
C2 Nominal discharge current (8/20 μ s) total (I_n)	20 kA
Voltage protection level (I_n C2)(U_p)	45 V (line-line), 45 V (line-PE)
Voltage protection level (1 kV/ μ sC3) (U_p)	28 V (line-line), 28 V (line-PE)
Series impedance perline	1.0 ohm
Capacitance	≤ 25 nF (line-line), ≤ 25 nF (line-PE)
Cut-off frequency line-PE	100 MHz

Mechanical

Method of mounting	35 mm DIN rail
Enclosure dimensions (H×W×D)	90 mm x 12 mm x 63 mm
Cross-sectional area (max.)	flexible: 2.5 mm ²
Cross-sectional area (min.)	0.5 mm ²
Stripping length terminals	5-7 mm
Torque contacts	0.3 N*m

Environmental

Location category	Indoor only
Operation temperature range (T_u)	-40 °C...+85 °C
Relative humidity	≤ 95 % (No condensation)
Operation altitude	≤ 4 km
Degree of protection	IP 20
Enclosure material	Thermoplastic, UL 94 V-2
Product code	913024



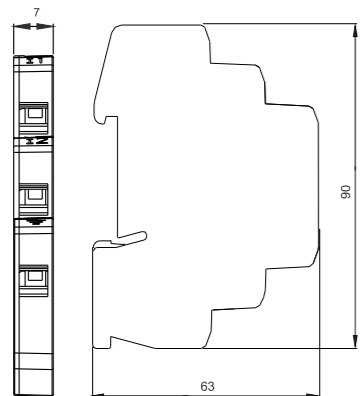
Signal surge protector YZ HA-24WS



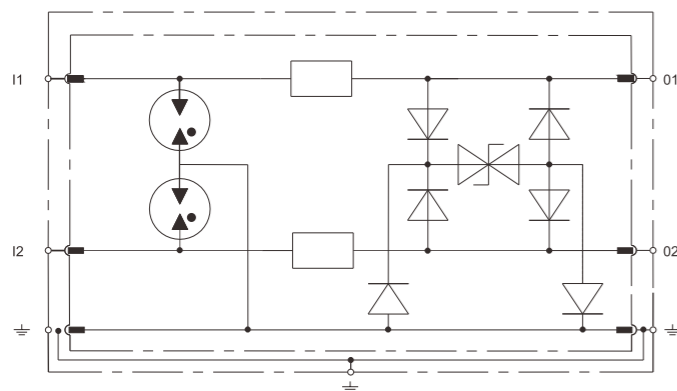
Description

DIN rail, compact SPD with slim size and single pair lines for protecting high-frequency transmission system at boundaries from LPZ 0B-2 and higher

Dimension drawing



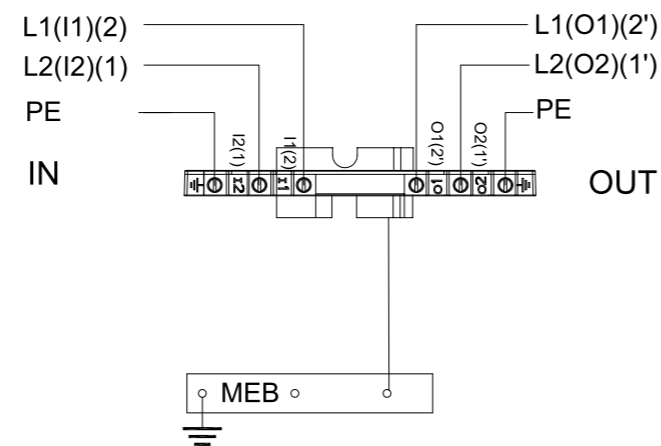
Circuit diagram



Features

- Integrated module
- long lasting
- Low residual pressure
- Small and ultra-thin

Wiring diagram



Electrical

Product model	YZ HA-24WS
Test according to	IEC 61643-21/EN 61643-21/GB/T18802.21
SPD Class	C2,D1
Number of ports	2
Technology	GDT & TVS
Nominal Voltage (U_N)	24 V
Max. continuous operating d.c. voltage (U_c)	33 V
Max. continuous operating a.c. voltage (U_c)	23.3 V
Rated load current (45°C)(I_L)	1.0 A
D1 lightning impulse current (10/350 μ s) per line (I_{imp})	2 kA
C2 Nominal discharge current (8/20 μ s) per line (I_n)	10 kA
C2 Nominal discharge current (8/20 μ s) total (I_n)	20 kA
Voltage protection level (I_n C2)(U_p)	65 V (line-line), 65 V (line-PE)
Voltage protection level (1 kV/ μ sC3) (U_p)	47 V (line-line), 47 V (line-PE)
Series impedance perline	1.0 ohm
Capacitance	≤ 25 nF (line-line), ≤ 25 nF (line-PE)
Cut-off frequency line-PE	100 MHz

Mechanical

Method of mounting	35 mm DIN rail
Enclosure dimensions (H×W×D)	90 mm x 7 mm x 63 mm
Cross-sectional area (max.)	flexible: 2.5 mm ²
Cross-sectional area (min.)	0.5 mm ²
Stripping length terminals	5-7 mm
Torque contacts	0.3 N*m

Environmental

Location category	Indoor only
Operation temperature range (T_u)	-40 °C...+85 °C
Relative humidity	≤ 95 % (No condensation)
Operation altitude	≤ 4 km
Degree of protection	IP 20
Enclosure material	Thermoplastic, UL 94 V-2
Product code	913005



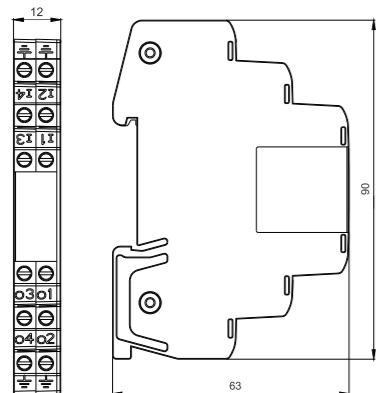
Signal surge protector YZ HA-24WS-2



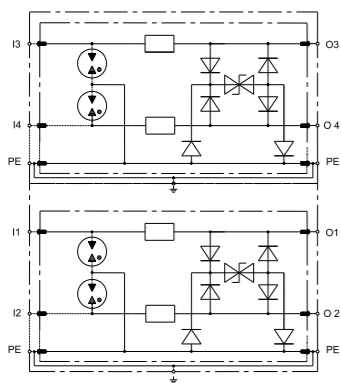
Description

DIN rail, compact SPD with slim size and single pair lines for protecting high-frequency transmission system at boundaries from LPZ 0B-2 and higher

Dimension drawing



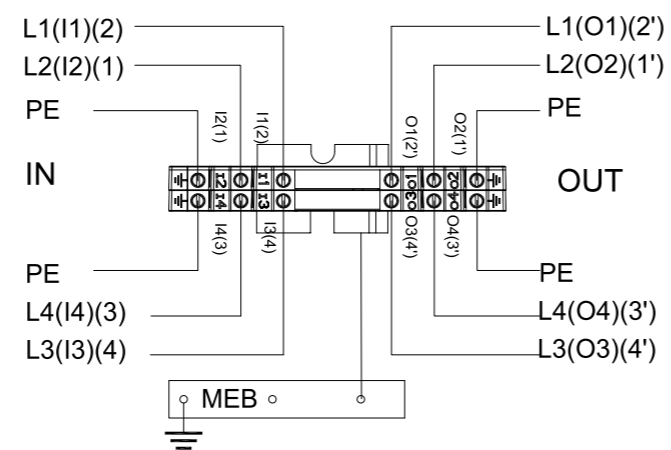
Circuit diagram



Features

- Integrated module
- Low residual pressure
- long lasting
- Small and ultra-thin

Wiring diagram



Electrical

Product model	YZ HA-24WS-2
Test according to	IEC 61643-21/EN 61643-21/GB/T18802.21
SPD Class	C2,D1
Number of ports	2
Technology	GDT & TVS
Nominal Voltage (U_N)	24 V
Max. continuous operating d.c. voltage (U_c)	33 V
Max. continuous operating a.c. voltage (U_c)	23.3 V
Rated load current (45°C)(I_L)	1.0 A
D1 lightning impulse current (10/350 μ s) per line (I_{imp})	2 kA
C2 Nominal discharge current (8/20 μ s) per line (I_n)	10 kA
C2 Nominal discharge current (8/20 μ s) total (I_n)	20 kA
Voltage protection level (I_n C2)(U_p)	55 V (line-line), 55 V (line-PE)
Voltage protection level (1 kV/ μ sC3) (U_p)	47 V (line-line), 47 V (line-PE)
Series impedance perline	1.0 ohm
Capacitance	≤ 35 nF (line-line), ≤ 35 nF (line-PE)
Cut-off frequency line-PE	100 MHz

Mechanical

Method of mounting	35 mm DIN rail
Enclosure dimensions (H×W×D)	90 mm x 12 mm x 63 mm
Cross-sectional area (max.)	flexible: 2.5 mm ²
Cross-sectional area (min.)	0.5 mm ²
Stripping length terminals	5-7 mm
Torque contacts	0.3 N*m

Environmental

Location category	Indoor only
Operation temperature range (T_u)	-40 °C...+85 °C
Relative humidity	≤ 95 % (No condensation)
Operation altitude	≤ 4 km
Degree of protection	IP 20
Enclosure material	Thermoplastic, UL 94 V-2
Product code	913025