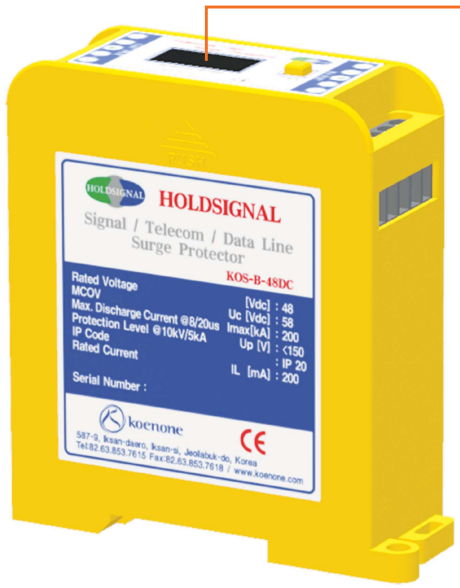
3,4-Wire Signal/Telecom Line

Signal/Telecom Counter-Type SPD



Display View

[Surge Counter]

0 1000

Specification

Voltage	DC 185V / 48V / 24V / 12V / 5V
Type	Signal/Telecom Line 3, 4-Wire Type (Serial)
Capacity	[3-Wire Type] 150kA - total / 50kA - mode [4-Wire Type] 200kA - total / 50kA - mode

Product Features

CE-certified, Patented
Performance in compliance with KS C IEC standard
[When 20 kV/10 kA (Voltage 1.2/50 μs, Current 8/20 μs) is applied, within 150 V-300 V]
High surge capacity - 200 kA/150 kA in all, the highest in the world
LCD surge counter
[Battery life ≥ 10 years, Replaceable]
Quadruple hybrid design - first in the world
Reverse surge protection - first in the world
Fastening by DIN-rail or Bolt
Flame-retardant ABS case

Application

3-Wire type: RTD (Resistance Temperature Detector), RS232, etc.
4-Wire type: RS422, Dedicated Line Modem Surge Protection

SPD Signal/Telecom

4-Wire Signal/Telecom

SPD Class **Category C1, C2, D1**

Model **KOS-B-12DC [4-Wire Type]**

Application Data Line, Analog / Digital Signal Line, Telecom Line Protection

Application Field **RS 422 Telecom Line**

4~20mA / 0~10V Analog Signal, Modem, RTU, PLC, SCADA, Load Cell etc

Electrical property

Rated voltage	Un	12V DC
Max Continuous Operating Voltage (MCOV)	Uc	16V DC
Nominal current		300 mA
Insulation resistance (@DC)	RIN	Above 20 MΩ
DC Loop resistance	R	Less than 50 Ω/1wire

Protection property

Protection mode			L1-L2 / L3-L4	L1-G / L2-G	L3-G / L4-G
Voltage protection level Category C2 (@20kV/10kA Voltage 1.2/50㎲, Current 8/20㎲) – IEC 61643-21	Up		≤ 100V	≤ 150V	≤ 150V
Maximum discharge Current DM:0kA, CM:200kA (@Current 8/20㎲)	Imax		0kA	100kA	100kA
Nominal discharge current (@Current 8/20㎲)	In	20kA			
Response time (@10kV/㎲)	ta	Less than 5 ns			

Features

Transmission property	Free of Voltage drop, Signal attenuation, Distortion
Protection circuit	Four-stage hybrid protection circuit
Protection method	Reverse surge protection
Operation indication	LCD surge counter/Battery life ≥ 10 years, Replaceable

Mechanical property

Protection rating level	IP20 (@IEC 60529), NEMA1
Operating temperature	-40 ~ 90℃
Operating humidity	Less than 95%
Size	(W)32 X (L)96 X (H)95 mm cf. p63
Installation	DIN-rail or Bolt fastening
Weight	Less than 300g

Test standard & Reference

IEC 61643-21 [2015] Category A, B, C Performance and Test Criteria for Data/Telecom/Signal Line Surge Protector

IEC 61643-12 [2017] Lightning Protection Zone 1, 2, 3

IEC 62305-1,2,3,4 [2017]

ANSI/IEEE Std C62.41 [2002] Category A, B, C

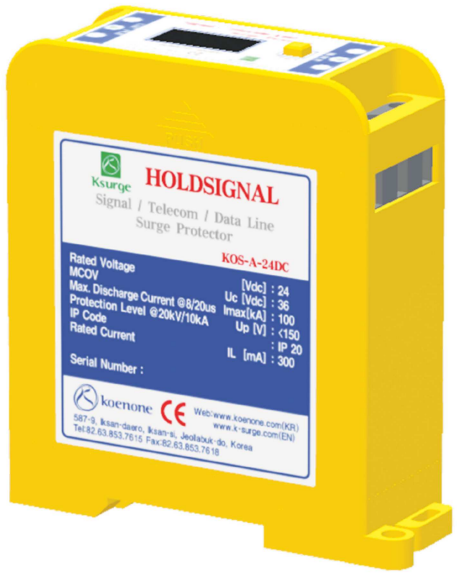
ANSI/IEEE Std C62.64 [2009] Data/Telecom/Signal Surge Line Surge Protector standard test specification

IEEE Std C62.36 [2016] Data/Telecom/Signal Line Surge Protector performance standard

*DM(Differential Mode[Differential Mode])=NM(Normal Mode[Normal Mode])=Symmetrical Mode
*CM(Common Mode[Common Mode])=LM(Longitudinal Mode[Longitudinal Mode])=Asymmetrical Mode

Size

Signal/Telecom Line [2-Wire, 3-Wire, 4-Wire]



Model List

Indicator Type / Counter Type / Normal Type
(W)32 x (L)96 x (H)95

2-Wire Type	• KOS-A-5DC	: Data Line(5V)
	• KOS-A-12DC	: RS 485 Telecom Line
	• KOS-A-24DC	: 4~20mA Analog Line
	• KOS-A-48DC	: KT Private Modem Line
	• KOS-A-185DC	: KT ADSL, VDSL Line
4-Wire Type	• KOS-B-12DC	: RS 422 Telecom Line
	• KOS-B-48DC	: KT Private Modem Line
	• KOS-B-185DC	: KT ADSL, VDSL Line
3-Wire Type	• KOS-C-5DC	: RTD Sensor Line
	• KOS-C-24DC	: RS 232 Telecom Line

[Unit : mm]

Indicator Type / Counter Type / Normal Type