

# Overvoltage Protection Combination

AD-ÜSK

## Description

The over voltage-protection combination are built up in very sturdy aluminium, die-cast housings of protection type IP-65, and can protect up to 4 analogue signal wires and additionally 2 power leads directly on site.

The two stage protection unit (coarse and fine protection) reacts very quickly and can shunt high currents. Limitation of the quadrature-axis component of the voltage, blow-out fuse and series inductance can be integrated as an option.

## Application

For protection up to 4 independent analogue signal wires and of a power supply against steep and energy rich over voltage peaks. In the sturdy IP-65 housing for application locations with extreme weather conditions.



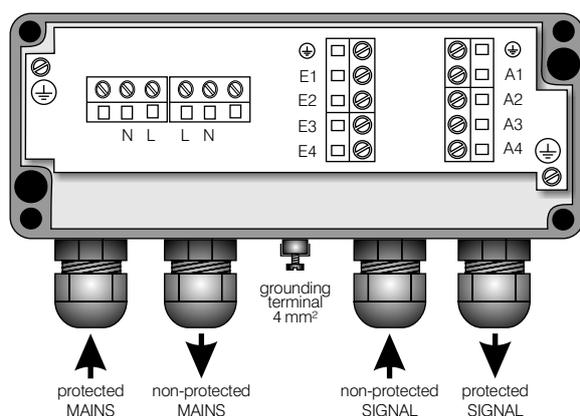
## Specification (each wire)

Construction type:	sturdy aluminium die-cast housing
Type of protection:	IP-65 (with screw joint PG 16)
max. number of wires:	4 signal-wires and 2 main-wire
Signal rated voltage :	22V / 30V / 48V
Main rated voltage:	230V
Protection voltage:	24V / 33V / 50V (others on request)
Main protection voltage:	275V AC
Limitation of the quadrature-axis component of the voltage:	(only with ÜSE 3x-xx) 24V / 33V / 50V (others on request)
Signal series resistance:	22 Ohm (1%) per wire
Max. signal nominal current:	100mA (with option L: 1A)
Max. main nominal current:	2A
Discharge current (8/20):	10 kA
Reaction time:	<0,1 ns
Option "L":	series inductance 40µH instead of series resistance (With higher series currents)
Option "S":	integral blow-out fuse for each wire
Option "D":	integral filter for pressure compensation
Option "R":	integral check-back-contact (only for power line)

## Notes on installation:

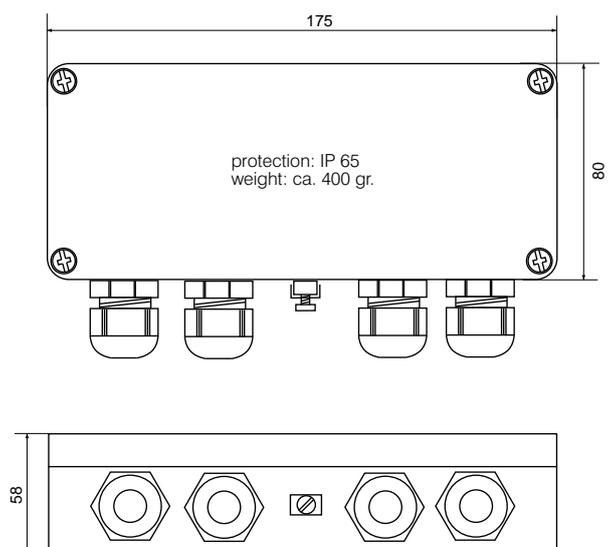
- Input side is there, where the over voltage is expected. Output side points to the units to be protected.
- The earth connection must be connected directly to the marked terminal
- Capacitive and inductive couplings are to be avoided, i.e. do not lay out any unprotected leads next to protected leads

## Connection und dimensions: AD-ÜSK 2 / AD-ÜSK 3



manner of fastening:  
fine-wire 4,0 mm<sup>2</sup>  
single-wire 4,0 mm<sup>2</sup>

screw connect: PG-16  
mounting hole: 163 x 52 mm, M4



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## Article report of overvoltage protection unit combination

ÜSK	protection voltage (*)	type description	with limiting of the quadrature-axis component of the voltage	with integrated micro-fuse	with limiting of the quadrature-axis component of the voltage and micro-fuse
combination of main-line-protection (230VAC) and signal-line-protection for 2-wire system	protection level 24V	AD-ÜSK 2/2-24	AD-ÜSK 3/2-24	AD-ÜSK 2/2-24-S	AD-ÜSK 3/2-24-S
	protection level 33V	AD-ÜSK 2/2-33	AD-ÜSK 3/2-33	AD-ÜSK 2/2-33-S	AD-ÜSK 3/2-33-S
	protection level 50V	AD-ÜSK 2/2-50	AD-ÜSK 3/2-50	AD-ÜSK 2/2-50-S	AD-ÜSK 3/2-50-S
combination of main-line-protection (230VAC) and signal-line-protection for 3-wire system	protection level 24V	AD-ÜSK 2/3-24	AD-ÜSK 3/3-24	AD-ÜSK 2/3-24-S	AD-ÜSK 3/3-24-S
	protection level 33V	AD-ÜSK 2/3-33	AD-ÜSK 3/3-33	AD-ÜSK 2/3-33-S	AD-ÜSK 3/3-33-S
	protection level 50V	AD-ÜSK 2/3-50	AD-ÜSK 3/3-50	AD-ÜSK 2/3-50-S	AD-ÜSK 3/3-50-S
combination of main-line-protection (230VAC) and signal-line-protection for 4-wire system	protection level 24V	AD-ÜSK 2/4-24	AD-ÜSK 3/4-24	AD-ÜSK 2/4-24-S	AD-ÜSK 3/4-24-S
	protection level 33V	AD-ÜSK 2/4-33	AD-ÜSK 3/4-33	AD-ÜSK 2/4-33-S	AD-ÜSK 3/4-33-S
	protection level 50V	AD-ÜSK 2/4-50	AD-ÜSK 3/4-50	AD-ÜSK 2/4-50-S	AD-ÜSK 3/4-50-S

(\*) other protection-voltage from 5-90 V possible



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