Voltage Measurement Modules

Description	Channels	Model*	Page
Voltage Measurement Module	1	U1B0A10A	209
Voltage Measurement Module	1	U1B0A10B	210
Voltage Measurement Module	1	U1B0A60A	211
Voltage Measurement Module	1	U1B0B10A	212
Voltage Measurement Module	1	U1B0B10B	213
Voltage Measurement Module	3	U3B0A10A	214

*additional versions available on request!

U1B0A10A

Description	Voltage Measurement Module		
Measuring range	kV	±1,0	
Sensitivity[1)]	mV/V	2,5	
Output signal[1), 2)]	V	2,5	
Input resistance	MΩ	10	
Zero signal[1)]	mV	≤ 1,2	
Amplitude non-linearity[3)]	%	≤ 0,05	
Hysteresis[3)]	%	≤ 1,0	
Current consumption	mA	33	
Supply voltage	V	10	±1,0
Galvanic isolation[4)]	kV	1,5	
Insulation resistance	MΩ	> 100	
Connection cable: Appliance socket Fixed cord	 mm mm	 4,0 9,2	
Temperature range	°C	–30..+70	
Weight (approximate)	g	210	
Dimensions: Body Base plate Hole spacing	 mm mm mm	 W x H x D: 55 x 28 x 28 W x H x D: 80 x 28 x 3 68	

All values measured at 10 V sensor supply voltage and at 23 °C.

[1)] Typical value, [2)] At nominal load, [3)] Relative nominal range, [4)] Input to output

U1B0A10B

Description	Voltage Measurement Module		
Measuring range	V	±70	
Sensitivity[1)]	mV/V	35,7	
Output signal[1), 2)]	V	2,5	
Input resistance	MΩ	10	
Zero signal[1)]	mV	≤ 12	
Amplitude non-linearity[3)]	%	≤ 0,05	
Hysteresis[3)]	%	≤ 0,05	
Current consumption	mA	22	
Supply voltage	V	5,0	±1,0
Galvanic Isolation[4)]	kV	-	None
Insulation resistance	MΩ	> 100	
Connection cable: Appliance sockets Fixed cord	 mm mm	 4,0 9,2	 Optional
Temperature range	°C	–30..+70	
Weight (approximate)	g	60	
Dimensions	mm	W x H x D: 48 x 45 x 25	

All values measured at 10 V sensor supply voltage and at 23 °C.

[1)] Typical value, [2)] At nominal load, [3)] Relative nominal range, [4)] Input to output

U1B0A60A

Description	Voltage Measurement Module		
Measuring range	V	±70	
Sensitivity[1)]	-	-	
Output signal[1), 2)]	-	RS845	Digital
Input resistance	MΩ	10	
Zero signal[1)]	mV	≤ 12	
Amplitude non-linearity[3)]	%	≤ 0,05	
Hysteresis[3)]	%	≤ 0,05	
Current consumption	mA	20	
Supply voltage	V	5,6	
Galvanic Isolation[4)]	kV	-	None
Insulation resistance	MΩ	> 100	
Connection cable: Appliance sockets Fixed cord	 mm mm	 4,0 9,2	 Optional
Temperature range	°C	–30..+70	
Weight (approximate)	g	60	
Dimensions	mm	W x H x D: 48 x 45 x 25	

All values measured at 10 V sensor supply voltage and at 23 °C.

[1)] Typical value, [2)] At nominal load, [3)] Relative nominal range, [4)] Input to output

U1B0B10A

Description	Voltage Measurement Module		
Measuring range	kV	±1,0	
Sensitivity[1)]	mV/V	2,5	
Output signal[1), 2)]	V	2,5	
Input resistance	MΩ	10	
Zero signal[1)]	mV	≤ 12	
Amplitude non-linearity[3)]	%	≤ 0,05	
Hysteresis[3)]	%	≤ 0,05	
Current consumption	mA	20	
Supply voltage	V	5-12	
Galvanic Isolation[4)]	kV	1,5	
Insulation resistance	MΩ	> 100	
Connection cable: Appliance sockets Fixed cord	 mm mm	 4,0 9,2	 Optional
Temperature range	°C	–30..+70	
Weight (approximate)	g	200	
Dimensions: Body Base plate Hole spacing	 mm mm mm	 W x H x D: 70 x 46 x 32 W x H x D: 95 x 32 x 3 83	

All values measured at 10 V sensor supply voltage and at 23 °C.

[1)] Typical value, [2)] At nominal load, [3)] Relative nominal range, [4)] Input to output

U1B0B10B

Description	Voltage Measurement Module		
Measuring range	kV	±1,0	
Sensitivity[1)]	mV/V	2,5	
Output signal[1), 2)]	V	2,5	
Input resistance	MΩ	10	
Zero signal[1)]	mV	≤ 12	
Amplitude non-linearity[3)]	%	≤ 0,05	
Hysteresis[3)]	%	≤ 0,05	
Current consumption	mA	33	
Supply voltage	V	5±0,2 (10±1,0)	Optional
Galvanic Isolation[4)]	kV	1,5	
Insulation resistance	MΩ	> 100	
Connection cable: Appliance sockets Fixed cord	 mm mm	 4,0 9,2	
Temperature range	°C	–30..+70	
Weight (approximate)	g	210	
Dimensions: Body Base plate Hole spacing	 mm mm mm	 W x H x D: 70 x 102 x 32 W x H x D: 95 x 32 x 3 83	

All values measured at 5 V sensor supply voltage and at 23 °C.

[1)] Typical value, [2)] At nominal load, [3)] Relative nominal range, [4)] Input to output

U3B0A10A

Description	Voltage Measurement Module, 3 Channels		
Measuring range	kV	±1,0	3 channels, as a Delta connection
Sensitivity[1)]	mV/V	2,5	
Output signal[1), 2)]	V	2,5	
Input resistance	MΩ	10	
Zero signal[1)]	mV	≤ 12	
Amplitude non-linearity[3)]	%	≤ 0,05	
Hysteresis[3)]	%	≤ 0,05	
Current consumption	mA	20	
Supply voltage	V	10	±1,0
Galvanic Isolation[4)]	kV	1,5	
Insulation resistance	MΩ	> 100	
Connection cable: Male sockets Fixed cord	 m	 2,0	Amphenol C016 10C008 0001
Temperature range	°C	–30..+70	
Weight (approximate)	g	600	
Dimensions: Body Base plate Hole spacing	 mm mm mm	 W x H x D: 105 x 60 x 60 W x H x D: 135 x 60 x 3 122 x 48	

All values measured at 10 V sensor supply voltage and at 23 °C.

[1)] Typical value, [2)] At nominal load, [3)] Relative nominal range, [4)] Input to output