

Laboratory Power Supplies

LD Series

Single- and Dual Output

Linear regulated with high performance
 Voltage and current regulated
 All outputs with galvanic isolation
 Series and parallel operation
 Master - slave - operation
 Programming and monitoring current - voltage
 Intended for 19" rack

Option: Installed Interface Euro Card IEEE 488.2 (GPIB)/RS232 with Lab View Driver INT2E series
 Integrated USB1.1 interface with driver software
 External CAN Open Interface (on request)



Units for Laboratory and Test

Input:	
Input voltage (AC)	230 VAC + 10%, 50 – 60 Hz
Output:	
Output voltage (DC)	see table
Output current	see table
Regulation:	
Line regulation	voltage $\leq 0,01\% U_A + 1 \text{ mV}$
(AC line change $\pm 10\%$)	current $\leq 0,1\% I_A + 2 \text{ mA}$
Load regulation	voltage $\leq 0,01\% U_A + 1 \text{ mV}$
(0 – 100% output	
load change)	current $\leq 0,1\% I_A + 2 \text{ mA}$
Dynamic response	$\leq 50 \mu\text{s}$
Ripple and noise	voltage: $I_{\text{nom}} \leq 10 \text{ A}: 0,01\% U_{\text{out}} + 1 \text{ mV}$ $I_{\text{nom}} > 10 \text{ A}: 0,08\% U_{\text{out}} + 1 \text{ mV}_{\text{pk-pk}}$ current: $\leq 0,05\% I_{\text{out}} + 5 \text{ mA}_{\text{pk-pk}}$ $\leq 0,05\% / \text{K}$
Temperature coefficient	
Protection:	
Overload protection	short circuit protection
Overvoltage protection	option
Environmental Conditions:	
Operating temperature	0 – + 50 °C
Cooling	free air convection
Safety:	
Safety standard	EN 61010-1
Isolation	
Input - output:	$U_{\text{out}} \leq 60 \text{ V}: 2,3 \text{ kV}_{\text{rms}}$ $U_{\text{out}} > 60 \text{ V} - 150 \text{ V}: 3,7 \text{ kV}_{\text{rms}}$ $1,35 \text{ kV}_{\text{rms}}$
Input - ground:	$U_{\text{out}} \leq 100 \text{ V}: 500 \text{ V}_{\text{rms}}$
Output - ground:	$U_{\text{out}} > 100 \text{ V} - 150 \text{ V}: 820 \text{ V}_{\text{rms}}$
EMC:	
Input EMI filter	EN61000-6-3
Input immunity	EN61000-6-2

Operation and Control:	
Programming	voltage and current (reference - U_{out}) with $0 - 10 \text{ V} \cong 0 - 100\% U_{\text{out}}, I_{\text{out}}$ and master - slave - operation
Master - slave - operation	same units
Parallel operation	same units without special action
Remote Sense	consult factory up to 0,25 V per wire
Instruments	for voltage and current LED digital, 3½digits accuracy: V-meter 0,2% $\pm 1 \text{ d}$ A-meter 0,5% $\pm 1 \text{ d}$
Adjustment	voltage and current each 2 potentiometers, coarse/fine
Connectors:	
Input	Euro - plug
Output	4 mm banana jack, 2 jacks for + and 2 for - , programming: 25 pole sub D plug, rear side
Physical Specifications:	
Dimensions	see drawing and table

Digital Instruments:

Output Voltage / Current (V) / (A)	Case type						Case depth* (mm)	Model Number
	A	B	C	D	E	F		
0-7,5/0-5	x				x		262,5	LD7,5/5G_
0-7,5/0-12	x				x		375	LD7,5/12G_
0-7,5/0-25		x				x	375	LD7,5/25G_
0-10/0-10	x				x		375	LD10/10G_
0-15/0-2	x				x		225	LD15/2G_
0-15/0-5	x				x		300	LD15/5G_
0-15/0-8	x				x		375	LD15/8G_
0-15/0-15		x				x	375	LD15/15G_
0-30/0-1	x				x		225	LD30/1G_
0-30/0-2	x				x		262,5	LD30/2G_
0-30/0-4	x				x		337,5	LD30/4G_
0-30/0-5	x				x		375	LD30/5G_
0-30/0-8		x				x	300	LD30/8G_
0-30/0-10		x				x	375	LD30/10G_
0-30/0-20				x			375	LD30/20GD
0-50/0-1	x				x		262,5	LD50/1G_
0-50/0-2	x				x		300	LD50/2G_
0-50/0-5		x				x	300	LD50/5G_
0-50/0-10		x				x	450	LD50/10G_
0-50/0-20				x			450	LD50/20GD
0-75/0-1	x				x		300	LD75/1G_
0-75/0-2	x				x		337,5	LD75/2G_
0-75/0-5		x				x	375	LD75/5G_
0-75/0-10				x			375	LD75/10GD
0-100/0-0,5	x				x		225	LD100/0,5G_
0-100/0-1	x				x		337,5	LD100/1G_
0-100/0-2		x				x	337,5	LD100/2G_
0-100/0-5			x				337,5	LD100/5GC
0-150/0-0,5	x				x		262,5	LD150/0,5G_
0-150/0-1	x				x		337,5	LD150/1G_
0-150/0-2		x				x	337,5	LD150/2G_
2 x 0-7,5/0-2	x					x	405	LD2x7,5/2G_
2 x 0-7,5/0-5	x					x	215	LD2x7,5/5G_
2 x 0-7,5/0-12	x					x	330	LD2x7,5/12G_
2 x 0-15/0-1	x					x	330	LD2x15/1G_
2 x 0-15/0-2	x					x	365	LD2x15/2G_
2 x 0-15/0-5	x					x	330	LD2x15/5G_
2 x 0-15/0-8	x					x	405	LD2x15/8G_
2 x 0-30/0-0,5	x					x	330	LD2x30/0,5G_
2 x 0-30/0-1	x					x	365	LD2x30/1G_
2 x 0-30/0-2	x					x	255	LD2x30/2G_
2 x 0-30/0-4	x					x	365	LD2x30/4G_
2 x 0-30/0-5	x					x	290	LD2x30/5G_
2 x 0-30/0-10				x			290	LD2x30/10GD
2 x 0-50/0-0,5	x					x	290	LD2x50/0,5G_
2 x 0-50/0-1	x					x	180	LD2x50/1G_
2 x 0-50/0-2	x					x	330	LD2x50/2G_
2 x 0-50/0-5				x			180	LD2x50/5GD
2 x 0-75/0-0,5	x					x	330	LD2x75/0,5G_
2 x 0-75/0-1	x					x	365	LD2x75/1G_
2 x 0-75/0-2	x					x	255	LD2x75/2G_
2 x 0-100/0-0,5	x					x	330	LD2x100/0,5G_
2 x 0-100/0-1	x					x	330	LD2x100/1G_
2 x 0-150/0-0,5	x					x	365	LD2x150/0,5G_
2 x 0-150/0-1	x					x	365	LD2x150/1G_
2 x 0-150/0-2				x			365	LD2x150/2GD

* with INT2E + 120 mm depth

Options:

19" front-panel for cases D and F
10 - turn potentiometer with scale

Overvoltage protection (max. 75 V)
Tracking

Installed IEEE 488.2 Interface Euro-Card INT2E

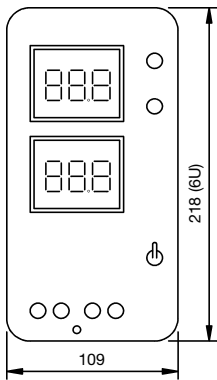
Input cable for external Interface INT2
Analog instruments for voltage and current,
1.5 % of full scale

Please order:

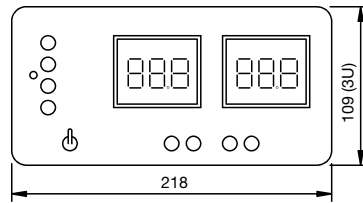
Last letter of the Model Number:
means case type (see following pages)

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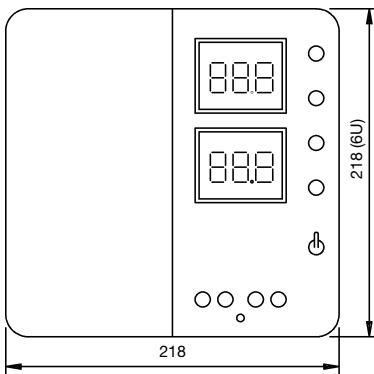
Single output:



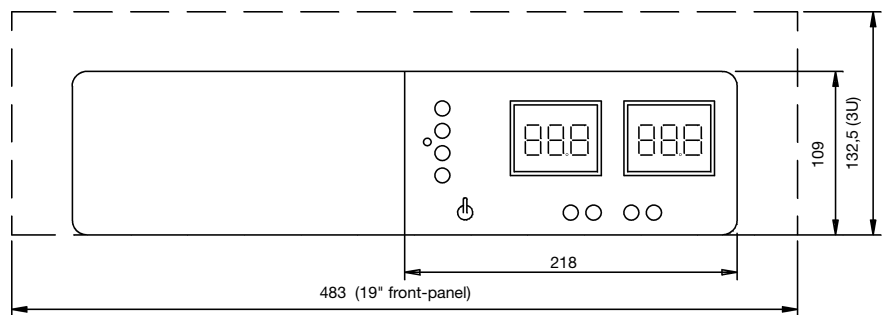
Case A



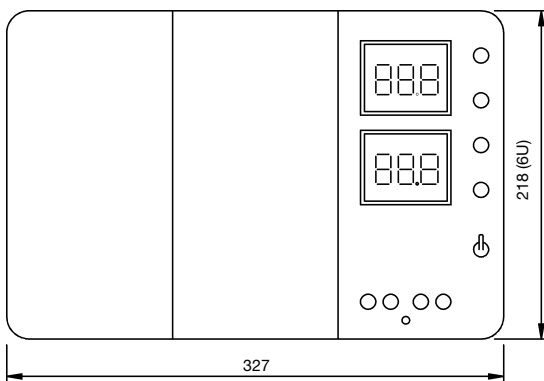
Case E



Case B

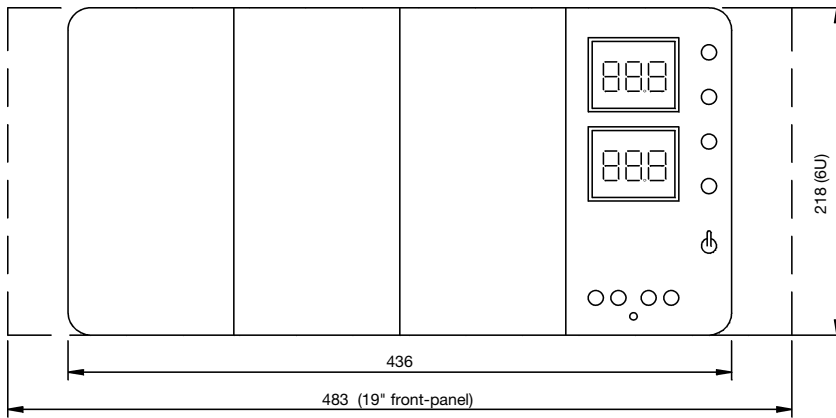


Case F



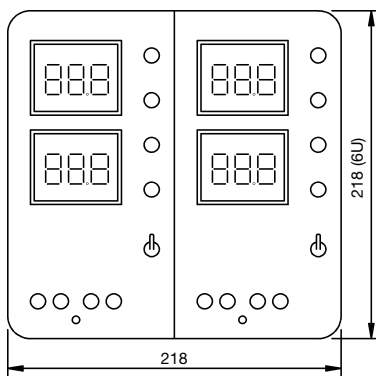
Case C

Dimensions in mm

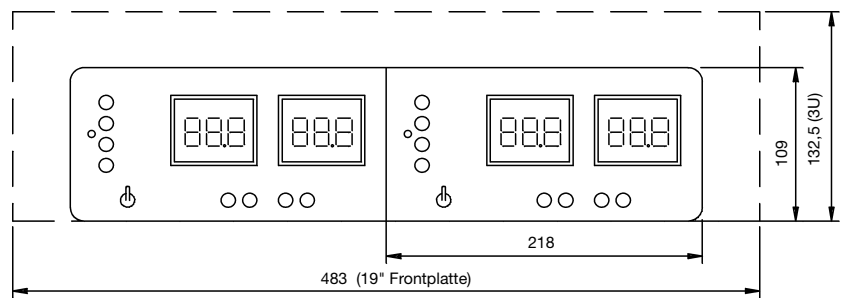


Case D

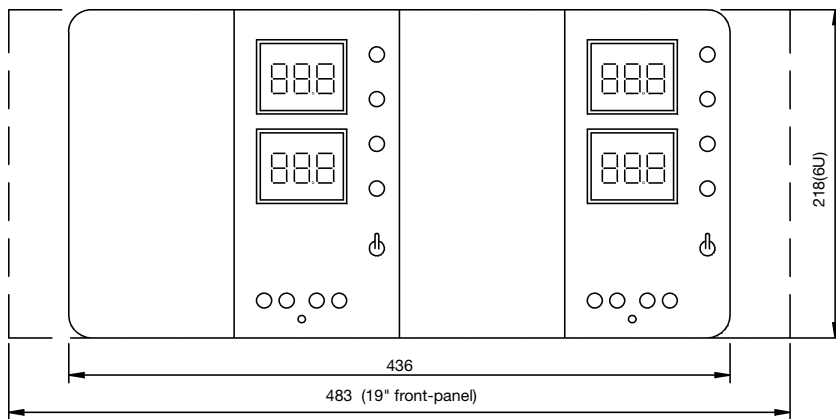
Dual output:



Case B



Case F



Case D