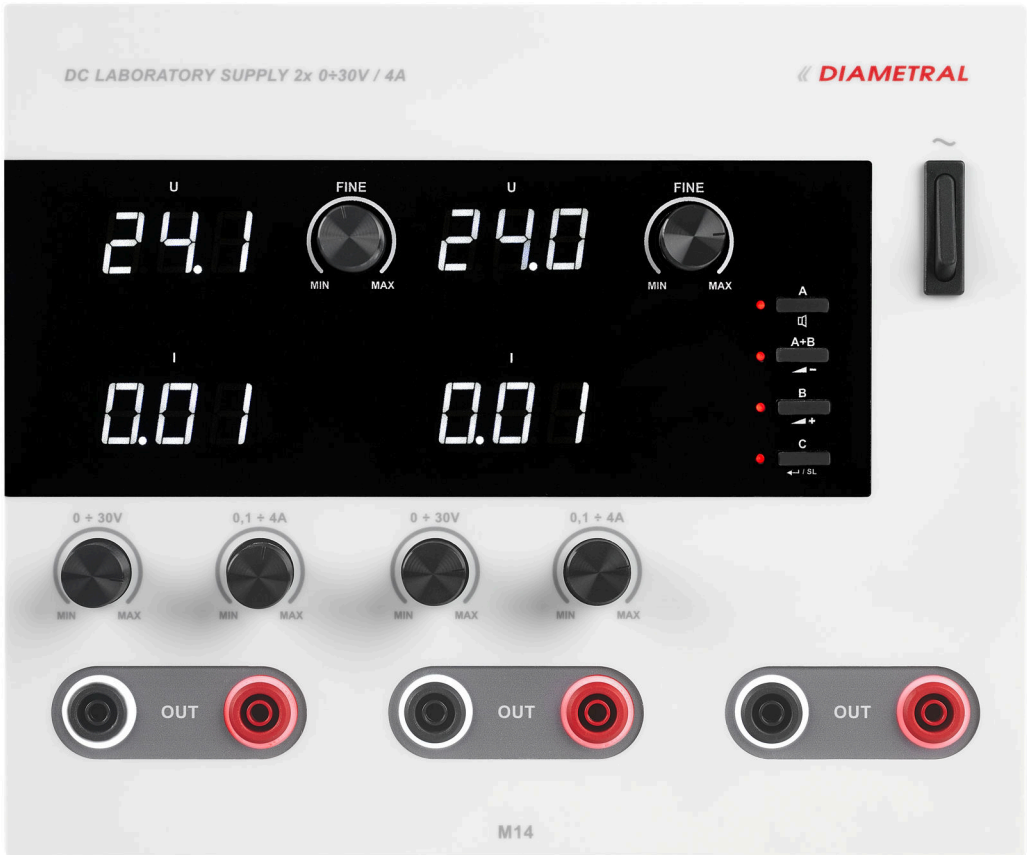
VarioLab+

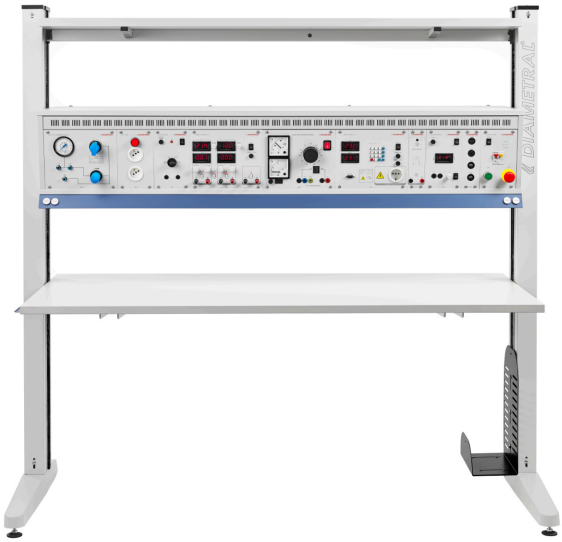
Modules for superstructures



DIAMETRAL®

Modules for superstructures

We present to you a new collection/line of VarioLab+ modules, based on the knowledge gained from more than twenty-five years of experience in the production of VarioLab+ devices and based on the comments of several thousand users from all over the world of VarioLab+ workplaces. The modules have been completely redesigned and innovated with new functions and elements, all in the spirit of modern needs. Great emphasis during development was placed on the safety of all devices, and along with that, their ergonomics were also improved.
With the new range of VarioLab+ modules, a modern, highly productive workplace can be created for various types of activities. New functions, modern design and improved parameters will be appreciated by users in research, industry and last but not least in education and professional training. VarioLab+ instruments provide users with a powerful tool for their creative or repetitive work.



VarioLab+ table with the superstructure

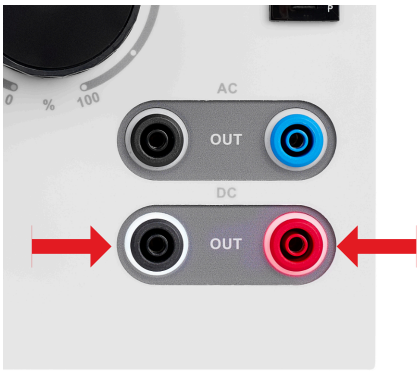
VertiGO table with the modules in the legs

VarioLift table with the mini superstructure

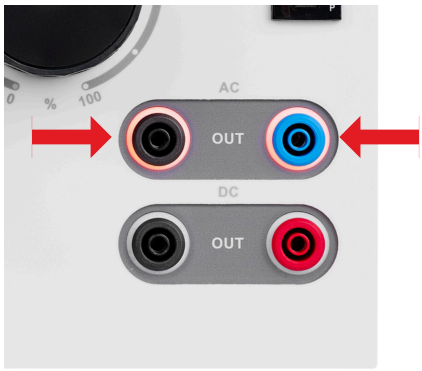
VarioLift table with the superstructure on the table top

Modules for superstructures

In addition to the improved parameters, the optical interaction between the user and the device was also improved by signaling individual device states, and a clear indication of the output voltages on the terminals or compressed air outputs was added. The indication makes working with the devices clearer and the user has clear information about the use of a specific output of the device without searching. This makes work more comfortable and safer.



DC output is ON



AC output is ON

Introduction and basic information on how to choose modules for superstructures

Instrument modules are suitable for VarioLab+ superstructures with the designation:

- **NSExx** or **NSYxx** enhancements in all available width.
- These superstructures must be installed on **VarioLab+, VarioLift** or **VertiGO** tables only.
- Each of the superstructures must always be equipped with a control and safety module. They are M08-xx modules for single-phase power supply and or M32-xx for three-phase power supply. These modules also contain a "Quick connect" power bus, which is used to power all modules in the superstructure.

All modules can be easily removed by loosening the corner screws on the front panel. It is thus possible to replace the modules with other ones if necessary. Free positions in the superstructure are covered by covers, which can also be replaced by modules if necessary.
The choice of other modules then depends on the specific requirements of the user. Our expert consultants are always ready to help and, based on their experience, recommend suitable modules and advise on their best placement in the superstructure.

For more details about our company Diametral a.s. visit our website www.diametral.eu

For more technical details about VarioLab+ and VarioLift visit our website www.variolab.net (*Simple registration is needed)*:

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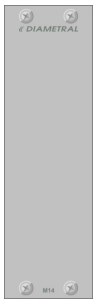
Covers

M00 – cover 60 mm

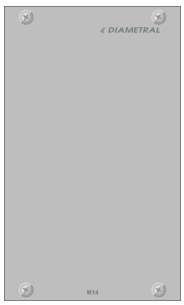


Description:
Blanking cover for empty space.

Parameters

dimensions (h x w):	200 x 60 mm

M01 – cover 120 mm



Description:
Blanking cover for empty space.

Parameters

dimensions (h x w):	200 x 120 mm

M22 – cover 30 mm

Description:
Blanking cover for empty space.

Parameters

dimensions (h x w):	200 x 30 mm

Covers

M58 – cover 240 mm

Description:
Blanking cover for empty space.

Parameters

dimensions (h x w):	200 x 240 mm

Plug and outlet power modules

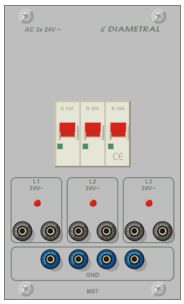
M02 – module 2 pcs outlet „E“ 230 V, 50 Hz, 16 A

Description:
2 outlets 230 V / 16 A protected by module M08 or module M32. The voltage is signaled by a LED light.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	16 A in total
dimensions (h x w):	200 x 90 mm

M07 – 3 x 24 V AC output terminal module with 3 phase circuit breaker



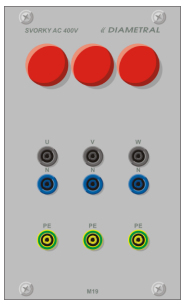
Description:

Output terminal module for connecting existing 3 x 24 V AC-Y distribution.
A transformer/s can be supplied to realise the distribution (parameters must be specified).
The output is switched by a contactor controlled by the M08 or M32 module.

Parameters

supply voltage:	local distribution or supplied transformer
maximum output current:	3 x 10 A / 50 Hz
output protection:	circuit breaker B 3 × 10 A
dimensions (h x w):	200 x 120 mm

M19 - 3 phase 400 V safety output terminal module



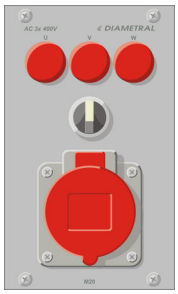
Description:
Module with safety terminals for 3 phase voltage and three indicator lights. Voltage is applied via the internal terminal board. It is advisable to secure the module with a primary fuse module, e.g. modules: M18, M30, M32.
The module does not contain a switch and is subordinate to the M08 or M32 module. When the superstructure is turned off, the module is turned off too.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
maximum terminal current:	10 A
power control:	only via module M08 or M32
dimensions (h x w):	200 x 120 mm
note:	it is advisable to secure the module with a security module.

Plug and outlet power modules

M20 – module 3 phase outlet 16 A + switch



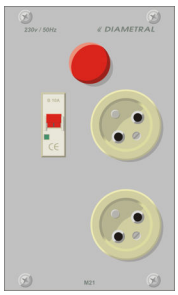
Description:

Module with three-phase outlet 16 A (5 pins), switch and indicator light. Voltage is applied via the internal terminal board. It is advisable to secure the module with a primary fuse module, for example the M18, M30, M32 module. The module is connected to the M08 or M32 module. When the superstructure is turned off, the module is turned off too.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
maximum output current:	16 A
dimensions (h x w):	200 x 120 mm
note:	it is advisable to subordinate the fuse module

M21–06 – module 2 pcs single outlet 230 V, 50 Hz, with its own circuit breaker 6 A

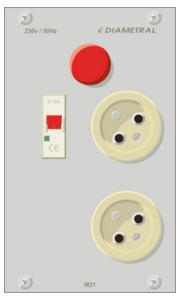


Description:
Two outlets with circuit breaker. The module does not contain a switch, it is subordinate to the M08 or M32 module. When the superstructure is turned off, the module is turned off. The voltage is signaled by a light.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	6 A in total
Circuit breaker used:	1 phase B 6 A
dimensions (h x w):	200 x 120 mm

M21–10 – module 2 pcs single outlet 230 V, 50 Hz, with its own circuit breaker 10 A



Description:

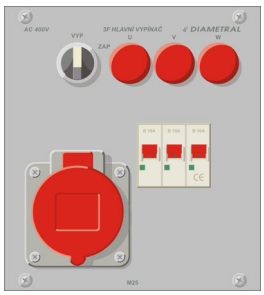
Two outlets with circuit breaker. The module does not contain a switch, it is subordinate to the M08 or M32 module. When the superstructure is turned off, the module is turned off. The voltage is signaled by a light.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	10 A in total
circuit breaker used:	1 phase B 10 A
dimensions (h x w):	200 x 120 mm

Plug and outlet power modules

M25 – module 3 phase outlet, switch, circuit breaker 3 × 10 A, indicator lights



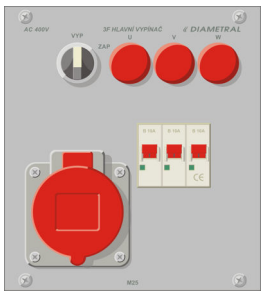
Description:

Three-phase outlet, switch, 3 indicator lights, protection with a three-phase circuit breaker. Voltage supply through the superstructure terminal block. The module is subordinate to the M08 or M32 module, it is switched off when the superstructure is switched off.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
maximum output current:	10 A
circuit breaker	B 10 A
used: dimensions (h x w):	200 x 180 mm

M25–16 – module 3 phase outlet, switch, circuit breaker 3 × 16 A, indicator lights



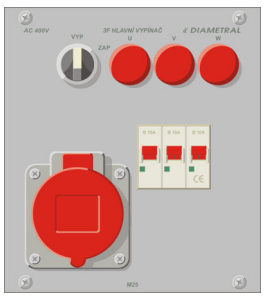
Description:

Three-phase outlet, switch, 3 indicator lights, protection with a three-phase circuit breaker. Voltage supply through the superstructure terminal block. The module is subordinate to the M08 or M32 module, it is switched off when the superstructure is switched off.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
maximum output current:	16 A
circuit breaker	B 16 A
used: dimensions (h x w):	200 x 180 mm

M25–20 – module 3 phase outlet, switch, circuit breaker 3 × 20 A, indicator lights



Description:

Three-phase outlet, switch, 3 indicator lights, protection with a three-phase circuit breaker. Voltage supply through the superstructure terminal block. The module is subordinate to the M08 or M32 module, it is switched off when the superstructure is switched off.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
maximum output current:	20 A
circuit breaker	B 20 A
used: dimensions (h x w):	200 x 180 mm

Plug and outlet power modules

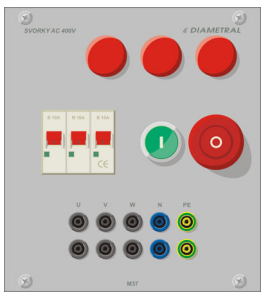
M35 – module 1 pc single outlet 230 V + 1 pc PC outlet 230 V, 50 Hz, 16 A

Description:
Single-phase outlet and appliance single-phase outlet. The module is protected by the M08 module or the M32 module. The voltage in the outlets is signaled by a light.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	16 And in total
dimensions (h x w):	200 x 90 mm

M37–10 – module of double 3 phase safety outlets 3 × 400 V, circuit breaker 10 A, TOTAL STOP



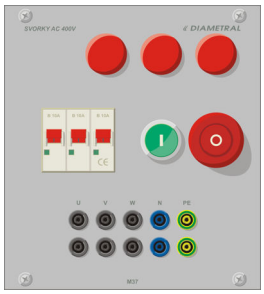
Description:
Mains voltage source with circuit breaker and on-off control. The presence of voltage at the output outlets is indicated by the lights. The voltage is output to the safety outlets connected in parallel.

The module is subordinate to the M08 or M32 module, it is switched off when the superstructure is switched off.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
maximum output current:	10 A
circuit breaker	B 10 A
used: dimensions (h x w):	200 x 180 mm

M37–16 – module of double 3 phase safety outlets 3 × 400 V, circuit breaker 16 A, TOTAL STOP



Description:
Mains voltage source with circuit breaker and on-off control. The presence of voltage at the output outlets is indicated by the lights. The voltage is output to the safety outlets connected in parallel.

The module is subordinate to the M08 or M32 module, it is switched off when the superstructure is switched off.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
maximum output current:	16 A
circuit breaker	B 16 A
used: dimensions (h x w):	200 x 180 mm

Plug and outlet power modules

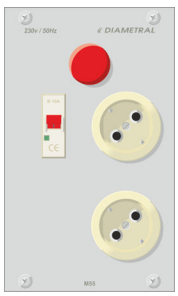
M54 – module 2 pcs SCHUKO outlet 230 V, 50 Hz, 16 A

Description:
Two SCHUKO outlets protected by the M08 module or the M32 module. The voltage in the outlets is signaled by a light.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	16 And in total
dimensions (h x w):	200 x 90 mm

M55–06 – module 2 pcs SCHUKO outlet 230 V, 50 Hz, 6 A + own circuit breaker

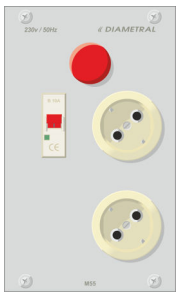


Description:
Two SCHUKO outlets with their own circuit breaker. The module is subordinate to the M08 or M32 module, it is switched off when the superstructure is switched off. The voltage in the outlets is signaled by a light.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	16 A
circuit breaker used:	6 A
dimensions (h x w):	200 x 120 mm

M55–10 – module 2 pcs SCHUKO outlet 230 V, 50 Hz, 10 A + own circuit breaker



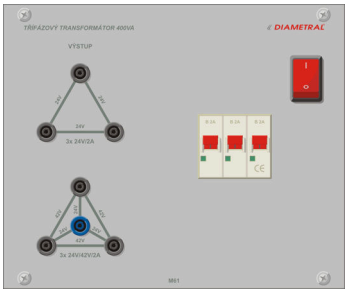
Description:
Two SCHUKO outlets with their own circuit breaker. The module is subordinate to the M08 or M32 module, it is switched off when the superstructure is switched off. The voltage in the outlets is signaled by a light.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	16 A
Circuit breaker used:	10 A
dimensions (h x w):	200 x 120 mm

Plug and outlet power modules

M61 – 3 phase transformer module 1 × AC 24 V / 2 A / D, 1 × AC 24 V / 42 V / 2 AY / D



Description:

Two separate AC voltage sources. The first source is connected to D, the second source is connected to Y/D. Outputs to safety terminals. The module contains its own switch with indicator light and is subordinate to the M08 or M32 module for safety reasons. If the superstructure is turned off, this module is also turned off.

The module has an input circuit breaker.

Parameters

supply voltage:	3 x 230 V / 400 V / 50 Hz
output voltage 1:	AC 24 V - D
output voltage 2:	AC 24 V / 42 V - Y
maximum output current:	2 A
circuit breaker	3 phase B2
used: dimensions (h x w):	200 × 240 mm

M65 – outlet module AC 230 V / 10 A, 2 x outlet, Euro connector, safety terminals + circuit breaker

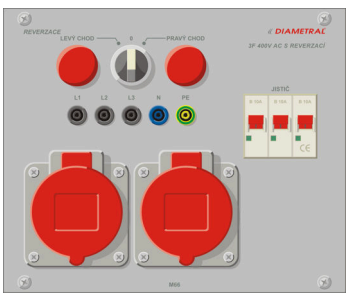
Description:

Voltage source 230 V / 10 A with circuit breaker B 10 A. Voltage at the output outlets indicated by indicator lights.The voltage is output to two outlets, a Euro connector and safety outlets. The module is subordinate to the M08 or M32 module. If the superstructure is turned off, the module is turned off.

Parameters

maximum operating voltage:	1 x 230 V / 50 Hz
maximum output current:	10 A
maximum terminal current:	10 A
dimensions (h x w):	200 x 180 mm

M66 – 3 phase / 400 V / 16 A reversal module



Description:

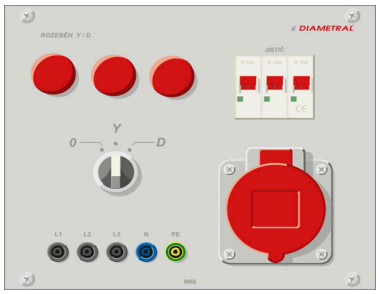
Module for reversing a three-phase motor with indicators for left and right operation. The output voltage is output to safety outlets and two three-phase outlets.

Parameters

supply voltage:	3 x 230 V / 400 V / 50 Hz
maximum output current: fuse:	10 A
	3 phase B10
dimensions (h x w):	200 × 240 mm

Plug and outlet power modules

M76 – 3 x 400V 3 phase motor start module, with Y/D manual switch



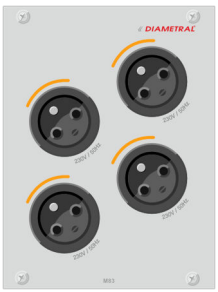
Description:

Contactor combination with for starting a 3-phase electric motor in Y/D mode with manual Y/D switching. Protection with a 3-phase circuit breaker, activation signaling by three red lights. The power output is on a five-pin outlet and outlets L1, L2, L3, N, PE.

Parameters

supply voltage:	3 x 400 V / 230 V / 50 Hz
power-on signaling:	3 x pilot light
maximum output current:	3 × 10 A
protection: 3-phase circuit	3 × 10 A /C
breaker dimensions (h x w):	200 × 240 mm

M83 – module of four outlets 230 V CEE 5/7, 16A



Description:

Four outlets according to the CEE 5/7 standard with ground pin. The outlets are connected via the VarioLab+ table security. Turning off the desk turns off the outlets.

Parameters

supply voltage:	230 V AC / 50 Hz
maximum output current:	16 A
dimensions (h x w):	200 × 150 mm

M90 – single-phase outlet module with power measurement

Description:

Single-phase outlet with electronic monitoring device for measuring the parameters of electrical appliances. It measures voltage, current, frequency, active (effective) power, apparent power (power input), reactive power and consumed electrical energy. 3 line LCD display.

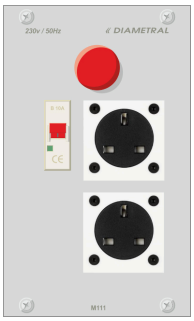
Power supply from the instrument body, it is subordinate to the M08 or M32 module.

Parameters

supply voltage:	230 V AC / 50 Hz
maximum current consumption:	16 A
power measurement:	0.1 to 3680 W
consumption:	0.000 to 9999 kWh
measurement: dimensions (h x w):	200 x 120 mm

Plug and outlet power modules

M111–06 – module 2 outlets 230V BS1363, 13A with circuit breaker 6 A /B

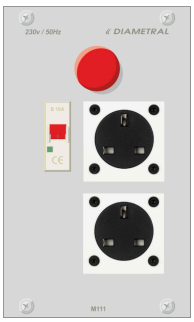


Description:
Two outlets 230 V BS1363 with own circuit breaker. The module does not contain a switch and is subordinate to the M08 or M32 module. When the superstructure is turned off, the module is turned off. The voltage in the outlets is signaled by a light on the module.

Parameters

supply voltage:	230 V / 50 Hz
maximum current:	6 A in total
protection:	1 phase breaker 6 A, characteristic B
dimensions (h x w):	200 x 120 mm

M111–10 – module 2 outlets BS1363, 13A with circuit breaker 10 A /B

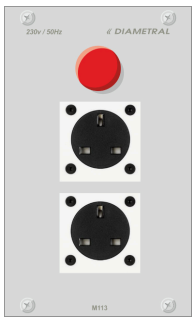


Description:
Two outlets 230 V BS1363 with own circuit breaker. The module does not contain a switch and is subordinate to the M08 or M32 module. When the superstructure is turned off, the module is turned off. The voltage in the outlets is signaled by a light on the module.

Parameters

supply voltage:	230 V / 50 Hz
maximum current:	10 A in total
protection:	1 phase breaker 10 A, characteristic B
dimensions (h x w):	200 x 120 mm

M113 – module 2 outlets BS1363, 13A without circuit breaker



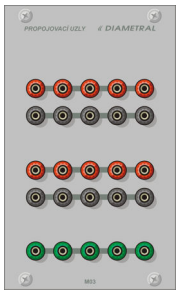
Description:
Two outlets BS1363, 13A without own circuit breaker. The module does not contain a switch and is subordinate to the M08 or M32 module. When the superstructure is turned off, the module is turned off. The voltage in the outlets is signaled by a light on the module.

Parameters

supply voltage:	230 V / 50 Hz
maximum current:	13 A in total
protection:	RCB in the superstructure
dimensions (h x w):	200 x 120 mm

Connecting terminals modules

M03 – module of connecting terminals for low voltages 5 rows / 5 terminals

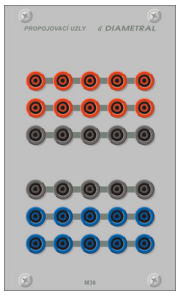


Description:
Connecting terminal module for voltage distribution from laboratory sources or for electrical connection of individual products. Not applicable for mains voltage connection!

Parameters

maximum operating voltage:	30 VDC / 24 V AC
maximum terminal current:	10 A at 30 V DC / 24 V AC
dimensions (h x w):	200 x 120 mm

M36 – 6-row safety connection terminal module



Description:
Connecting terminals for voltage distribution to multiple devices or for electrical connection of products.
Standard color design: 2 x red, 2 x black, 2 x blue

Parameters

maximum operating voltage:	120V DC / 230V AC
maximum terminal current:	10 A at 30 V DC / 24 V AC
dimensions (h x w):	200 x 120 mm

Fixed DC voltage source modules

M04 – DC source module ± 15 V / 1 A

Description:

Fixed symmetrical voltage source with electronic output fuse. The voltage at the output terminals is signaled by the lights.

Parameters

supply voltage:	230 V / 50 Hz
max. output current:	± 1 A
fixed voltage:	± 15V
ripple typical:	< 10 mV
dimensions (h x w):	200 x 120 mm

M13 – DC source module 9 V / 1 A

Description:

Fixed source of direct current voltage with its own switch and output voltage signaling by LED. Output equipped with two pairs of terminals.

Parameters

supply voltage:	230 V / 50 Hz
fixed voltage:	9V DC
fixed current:	1 A
typical ripple:	10 mV
output protection:	short circuit proof
dimensions (h x w):	200 x 120 mm

M27 – DC source module ± 15 V / 1 A; + 5 V / 3 A

Description:

Fixed symmetrical voltage source and positive source. Electronic output fuses and thermal overload fuses. The voltage at the output terminals is signaled by the lights.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	±1 A; 3 A
ripple typical:	<10 mV
dimensions (h x w):	200 x 120 mm

Fixed DC voltage source modules

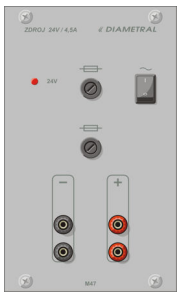
M43 – DC stabilized source module ± 24 V / 1 A

Description:
Fixed symmetrical stabilized voltage source with electronic output fuse. The presence of voltage at the output terminals is signaled by indicator lights.

Parameters

supply voltage:	230 V / 50 Hz
max. output current:	± 1 A
fixed voltage:	± 24 V
typical ripple:	< 10 mV
dimensions (h x w):	200 x 120 mm

M47 – module of unstabilized unfiltered DC source 24 V / 4.5 A



Description:
Fixed source of direct current, unstabilized and unfiltered voltage with its own switch and signaling the output voltage with a light. The voltage is output to the instrument terminals. Input and output fuse.

Parameters

supply voltage:	230 V / 50 Hz
fixed voltage:	24 V DC
fixed current:	4.5 A
output protection:	fuse T 250 V / 5 A
dimensions (h x w):	200 x 120 mm

M53 – module of unstabilized unfiltered DC source 6 - 12 - 24 - 48 V / 2.0 A

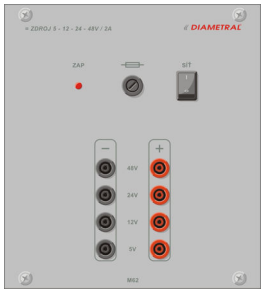
Description:
Fixed source of direct current, unstabilized and unfiltered voltage with the possibility of switching the output voltage value with a rotary switch. The module has an on/off switch and an indicator light for the output voltage. The voltage is output to the safety terminals. Protection with an input fuse.

Parameters

supply voltage:	230 V / 50 Hz
output voltage:	6 - 12 - 24 - 48 V DC
fixed current:	2 A
input protection:	fuse T 250 V / 0.4 A
dimensions (h x w):	200 x 120 mm

Fixed DC voltage source modules

M62 – module of stabilized DC source 5 - 12 - 24 - 48 V / 2 A



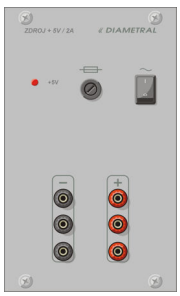
Description:

4 separate stabilized DC sources with their own outputs for safety terminals with electronic fuse protection. The module contains the main mains fuse, a switch and an indicator light.

Parameters

supply voltage:	230 V / 50 Hz
output voltage 1:	5V DC
output voltage 2:	12 V DC
output voltage 3:	24 V DC
output voltage 4:	48 V DC
output current of each source:	2 A
dimensions (H x W):	200 x 180 mm

M99 – Module DC stabilized source 15V / 5A



Description:

DC power supply with short circuit and overload protection. The module has an on/off light and a switch. The voltage is output to the outlets. Powering the module from the superstructure, the module is subordinate to the M32 module.

Parameters

supply voltage:	230 V / 50 Hz
output voltage:	15 V DC
output current:	5 A DC
fuse:	5 A DC
dimensions (h x w):	200 x 120 mm

Laboratory DC power supply modules

M05 – module DC laboratory power supply 1 × 0 ÷ 32 V / 4.1 A; 5 V / 3 A

Description:

Power supply with voltage regulation and the possibility of setting current limitation. The module also has a fixed voltage source of 5 V / 3 A. The power supply is equipped with measuring devices for voltage and current. Current limitation is indicated by a flashing decimal point and an intermittent beep. Audible signaling can be turned off. The outputs of the sources are controlled by separate buttons with an indicator light, so there is no need to turn off the entire source during work.

Parameters

supply voltage:	230 V / 50 Hz
regulated voltage:	1 × 0 ÷ 32 V
adjustable current:	1 × 0 ÷ 4.1 A
fixed voltage:	1 x 5V
fixed current:	1 x 3A
typical ripple:	< 2 mV
dimensions (h x w):	200 x 180 mm

M14 – module of double DC laboratory power supply 2 × 0 ÷ 32 V / 4.1 A; 5 V / 3 A

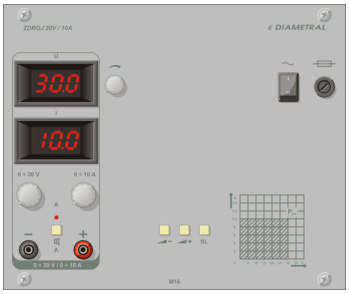
Description:

Two sources with continuous voltage regulation with the possibility of setting current limitation and a fixed voltage source. The adjustable part is equipped with measuring devices for voltage and current. Indication of current limitation with flashing decimal point and sound signal. The outputs of the individual sources are controlled by a button with an indicator light. It is possible to combine adjustable sources into one symmetrical power supply controlled by a button.

Parameters

supply voltage:	230 V / 50 Hz
voltage / current regulated:	2 × 0 ÷ 32 V / 0 ÷ 4.1 A
voltage / current fixed:	1 x 5 V / 3 A
ripple typical:	<2 mV
dimensions (h x w):	200 x 240 mm

M16 – module of DC laboratory power supply 1 × 0 ÷ 30 V / 10 A



Description:

A power supply with continuous voltage regulation. The adjustable part of the source is equipped with measuring devices for voltage and current. Indication of current limitation with flashing decimal point and sound signal. Audible signaling can be turned off. The outputs of the individual sources are controlled by a button with an indicator light, so there is no need to switch off the entire source during work.

Parameters

supply voltage:	230 V / 50 Hz
voltage / current regulated:	1 × 0 ÷ 30 V / 0 ÷ 10 A
ripple typical:	<2 mV
dimensions (h x w):	200 x 240 mm

Laboratory DC power supply modules

M33 – module DC laboratory power supply 1 × 0 ÷ 30 V / 20 A

Description:

A power supply with continuous voltage regulation with the possibility of setting the current limit. The adjustable part of the source is equipped with measuring devices for voltage and current. Indication of current limitation with flashing decimal point and sound signal. The sound signal can be turned off. The output of the source is controlled by a button with an indicator light, so there is no need to switch off the entire source during work. The output is equipped with a reversible thermal fuse.

Parameters

supply voltage:	230 V / 50 Hz
regulated voltage:	1 × 0 ÷ 30 V
adjustable current:	1 × 0 ÷ 20 A
ripple typical:	< 2 mV
ripple maximum:	17 mV
dimensions (h x w):	200 x 390 mm

M41 – module of double DC laboratory power supply 2 × 0 ÷ 42 V / 3.1 A; 5 V / 3 A

Description:

Two sources with voltage regulation with the possibility of setting current limitation and a fixed voltage source.The adjustable part of the source is equipped with measuring devices for voltage and current. Current limitation is indicated by a flashing decimal point and a removable sound signal. The power supply outputs are controlled by a button with an indicator light. The possibility of connecting both power supply into one symmetrical source is controlled by a button.

Parameters

supply voltage:	230 V / 50 Hz
voltage / current regulated:	2 × 0 ÷ 42 V / 0 ÷ 3.1 A
voltage / current fixed:	1 x 5 V / 3 A
ripple typical:	2 mV
dimensions (h x w):	200 x 240 mm

M42 – module DC laboratory power supply 1 × 0 ÷ 42 V / 3.1 A; 5 V / 3 A

Description:

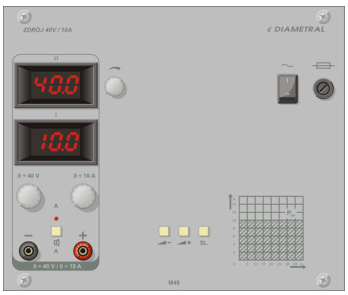
A power supply with continuous voltage regulation with the possibility of setting current limitation and a fixed voltage source.The adjustable part of the source is equipped with measuring devices for voltage and current. Current limitation is indicated by a flashing decimal point and a switchable sound signal. The power supply outputs are controlled by a button with an indicator light.

Parameters

supply voltage:	230 V / 50 Hz
voltage / current regulated:	1 × 0 ÷ 42 V / 0 ÷ 3.1 A
voltage / current fixed:	1 x 5 V / 3 A
ripple typical:	2 mV
dimensions (h x w):	200 x 180 mm

Laboratory DC power supply modules

M48 – module DC laboratory power supply 1 × 0 ÷ 40 V / 10 A



Description:

A source with continuous voltage regulation with the possibility of setting the current limit. The source is equipped withmeasuring devices for voltage and current. Indication of current limitation with flashing decimal point and switchable sound signal. The output of the source is controlled by a button with an indicator light, so there is no need to switch off the entire source during work.

Parameters

supply voltage:	230 V / 50 Hz
voltage / current regulated:	1 × 0 ÷ 40 V / 0 ÷ 10 A
ripple typical:	2 mV
dimensions (h x w):	200 x 240 mm

Data interface modules

M06 – RS232 data interface module (COM1 and COM2)

Description:

Extension of COM ports

Parameters

cable length/s:	3 m
dimensions (h x w):	200 x 60 mm

M28 – RS232, LPT, USB data interface module

Description:

Extension of COM, LPT and USB ports

Parameters

cable length/s:	3 m
dimensions (h x w):	200 x 120 mm

M38 – data interface module RS232, LPT, USB, LAN-RJ45

Description:

Extension of COM, LPT and USB and LAN RJ-45 Cat. 5e or 6 ports.

Parameters

cable length/s:	3 m
dimensions (h x w):	200 x 60 mm

Data interface modules

M39 – data interface module RS232, LPT, USB, LAN-RJ45

Description:

Connecting to a computer network. Five-port switch and one connection port to the computer network. Operation is signaled by LED lights. The module is subordinate to the M08 or M32 module. It is turned off when the superstructure is turned off.

Parameters

number of output ports:	5
baud rate:	10 / 100 Mbps
dimensions (h x w):	200 x 60 mm

M40 – USB replicator module for 4 connection points

Description:

Expansion of the USB port to 4 USB outputs. Signaling of the data connection with the PC by a green LED, signaling of the supply voltage by a red LED. The module is subordinate to the M08 or M32 module. It is turned off when the superstructure is turned off.

Parameters

supply voltage:	230 V / 50 Hz
cable length/s:	3 m
dimensions (h x w):	200 x 60 mm

M84 – data interface module 2 × USB, 1 × LAN-RJ45, 1 × HDMI

Description:

Data interface 2 x USB, 1 x LAN-RJ45, 1 x HDMI
Including connection cables:
2 x USB 3m
1 x LAN UTP Cat5e 5m
HDMI cable is not included.

Parameters

connectors:	2 x USB, 1 x LAN-RJ45 1 x HDMI
dimensions (h x w):	200 x 60 mm

Data interface modules

M85 – data interface module 1 × LAN-RJ45, 2 × USB

Description:
Data interface: 1 × LAN-RJ45, 2 × USB

including connection cables:

1 × LAN UTP Cat5e 5m
2 x USB 3m

Parameters

connectors:	1 x LAN-RJ45 2 x USB
dimensions (h x w):	200 x 60 mm

M100 – 1 × LAN-RJ45 data interface module and DC and AC safety outlets

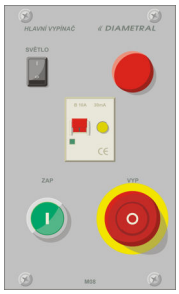
Description:
RJ45 Cat 5e data outlet with connecting Ethernet Cat5e 5 data cable has a pair of outlets for AC and DC voltage output (the power supply is not part of the module).

Parameters

output voltage at the outlets:	up to 230 V / 50 Hz max.
output current at the outlets:	up to 10 A max.
data connection:	RJ45 outlet, Cat5e and UTP Ethernet Cat5e cable (5 m)
dimensions (h x w):	200 x 60 mm

Control and fuses modules

M08-10 – module 1 phase central switch, fuse 10 A, current protector, TOTAL STOP button



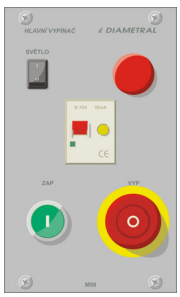
Description:

Basic module with single-phase electrical distribution. current. It includes a TOTAL STOP button, a power button, a circuit breaker, a protector, a table light switch and a pilot light. The module includes a set of buses for connecting other electrically subordinate modules. The module is equipped with electronics for communication with the optional superior control panel OP-xx.

Parameters

supply voltage:	230 V / 50 Hz
circuit breaker used:	1 x C 10 A
protector used:	30mA
dimensions (h x w):	200 x 120 mm

M08-16 – module 1 phase central switch, fuse 16 A, current protector, TOTAL STOP button



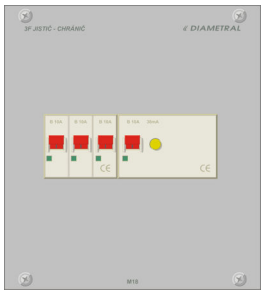
Description:

Basic module with single-phase electrical distribution. current. It includes a TOTAL STOP button, a power button, a circuit breaker, a protector, a table light switch and a pilot light. The module includes a set of buses for connecting other electrically subordinate modules. The module is equipped with electronics for communication with the optional superior control panel OP-xx.

Parameters

supply voltage:	230 V / 50 Hz
circuit breaker used	1 x C 16 A
protector used:	30mA
dimensions (h x w):	200 x 120 mm

M18 – module 3 phase circuit breaker and protector



Description:

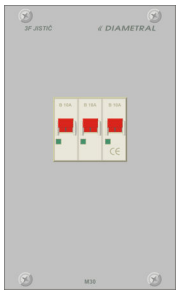
Protection of three-phase modules, for example M19, M20 with a three-phase circuit breaker 10 A (standard) or 16 A (on request) and a three-phase protector. Outlets and all connections with the environment are inside the superstructure.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
circuit breaker used:	3 phase B 10 A or 3 phase B 16 A
Protector used:	3 phase 30mA
dimensions (h x w):	200 x 180 mm

Control and fuses modules

M30 – 3 phase circuit breaker module

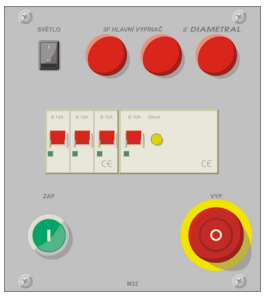


Description:
Three-phase breaker 10 A (standard) or 16 A (on request) for securing three-phase modules, for example M19, M20. The connection is inside the superstructure.

Parameters

maximum operating voltage:	3 x 400 V / 50 Hz
circuit breaker used:	3 phase B10 A or 3 phase B16 A
dimensions (h x w):	200 x 120 mm

M32-10 – module 3 phase central switch, fuse 3 × 10 A, current protector, TOTAL STOP button

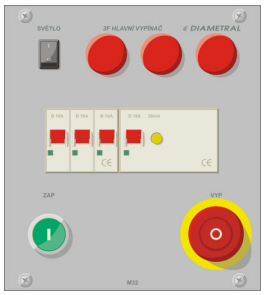


Description:
Basic module with three-phase electrical distribution. current. It includes a TOTAL STOP button, a power button, a circuit breaker, a protector, a table lighting switch and indicator lights. The module includes a set of buses for connecting other electrically subordinate modules. The module is equipped with electronics for communication with the optional superior control panel OP-xx.

Parameters

supply voltage:	3 x 230 / 400 V / 50 Hz
breaker used:	3 × B 10 A
protector used:	30mA

M32-16 – module 3 phase central switch, fuse 3 × 16 A, current protector, TOTAL STOP button



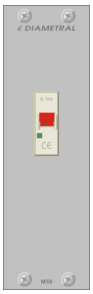
Description:
Basic module with three-phase electrical distribution. current. It includes a TOTAL STOP button, a power button, a circuit breaker, a protector, a table lighting switch and indicator lights. The module includes a set of buses for connecting other electrically subordinate modules. The module is equipped with electronics for communication with the optional superior control panel OP-xx.

Parameters

supply voltage:	3 x 230 / 400 V / 50 Hz
breaker used:	3 × B 16 A
protector used:	30mA

Power supply and fuses modules

M59 – 1F circuit breaker module

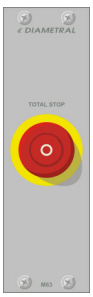


Description:
Circuit breaker for protecting single-phase modules and external outlets. The connection is inside the superstructure.

Parameters

maximum operating voltage:	1 x 230 V / 50 Hz
circuit breaker used:	1F B10 A or 1F B16 A
dimensions (h x w):	200 x 60 mm

M63 – TOTAL STOP button module

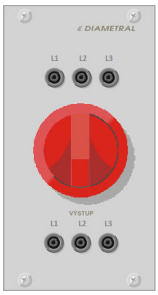


Description:
The security enhancement module allows you to immediately turn off all connected workstations. It does not replace the M08 and M32 central switch and fuse modules.

Parameters

control voltage:	230 V / 50 Hz
maximum current with button:	2 A
dimensions (h x w):	200 x 60 mm

M78 – Cam Rotary Switch Module 3 x 400V / 20A



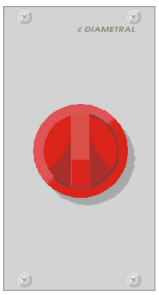
Description:
Separate cam switch for AC voltage, The module is suitable as a switch for the power supply to the superstructure, or for switching an external device.

Parameters

maximum switching voltage:	3 x 400 / 230 V AC
maximum switching current:	20 A AC
dimensions (h x w):	200 x 120 mm

Power supply and fuses modules

M86 – Packet switch module 3 phase, 400 V/ 63 A



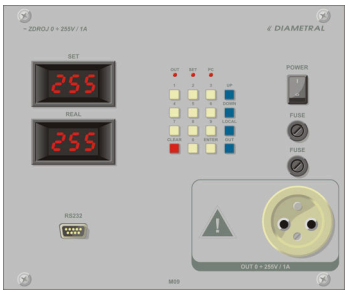
Description:
The cam switch is suitable as a switch for the power supply to the superstructure, or for switching an external device.

Parameters

maximum switching voltage:	3 x 400V
maximum switching current:	3 x 63 A AC
dimensions (h x w):	200 x 120 mm

Laboratory power supply modules AC/DC

M09 – module of stabilized AC/DC source 0 V ÷ 255 V / 1 A

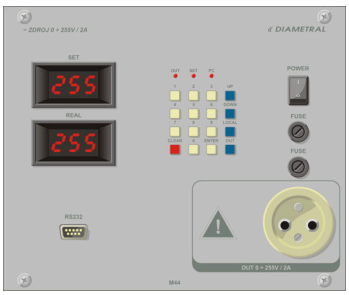


Description:
Processor controlled stabilized AC/DC power supply. The AC output voltage has a pure sinusoidal waveform. The maximum voltage limit is password protected. The source state is saved before turning off. Control via keyboard or personal computer via RS232 interface and D-Control software. Time-dependent processes can be defined indefinitely with D Control. The set and measured voltage values are shown on the displays.

Parameters

supply voltage:	230 V / 50 Hz
max. output current:	1 A
voltage regulated, switchable	AC/DC: 0 ÷ 255 V
voltage regulation step:	1 V
output frequency:	50 Hz
dimensions (h x w):	200 x 240 mm

M44 – module of stabilized AC/DC source 0 V ÷ 255 V / 2 A



Description:
Processor controlled stabilized AC/DC power supply. The AC output voltage has a pure sinusoidal waveform. The maximum voltage limit is password protected. The source state is saved before turning off. Control via keyboard or personal computer via RS232 interface and D-Control software. Time-dependent processes can be defined indefinitely with D Control. The set and measured voltage values are shown on the displays.

Parameters

supply voltage:	230 V / 50 Hz
max. output current:	2 A
voltage regulated, switchable	AC/DC: 0 ÷ 255 V
voltage regulation step:	1 V
output frequency:	50 Hz
dimensions (h x w):	200 x 240 mm

Measuring instruments modules

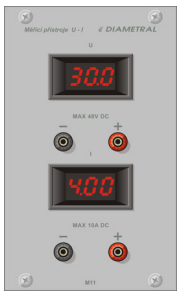
M10 – counter and function generator module

Description:
Two-channel programmable function generator with counter. Direct Digital Synthesis (DDS) reduces distortion and output signal noise, 100 MSa/s sampling and 14-bit D/A converter resolution; memory depth 4 k points; 5 standard and 48 preset programmable waveforms. AM, FM, PM, FSK, lin./log. sweep, burst, USB interface, USB host.

Parameters

supply voltage:	230 V / 50 Hz
frequency range:	1 µHz ÷ 20 MHz
signal shape:	sine, rectangle, triangle, saw, white noise, pulse, DC
output impedance:	50 Ω
output amplitude:	2 mV ÷ 10 V at 50 Ω
frequency measurement:	100 mHz ÷ 200 MHz
sampling channel:	1100 MSa/s
dimensions (h x w):	200 x 240 mm

M11 – orientation DC voltmeter and ammeter module

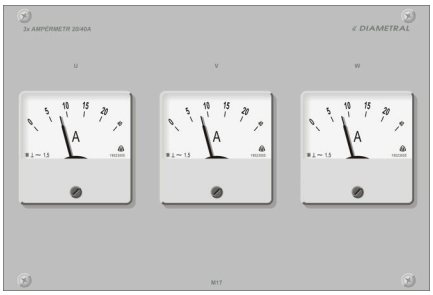


Description:
Orientation DC voltmeter and ammeter. Only for measuring battery powered connections.
Safety output terminals.

Parameters

voltmeter range:	0 ÷ 48 V DC
ammeter range:	0 ÷ 10 A DC
ammeter load capacity:	2 A max. 10 s
above accuracy class of measuring devices:	2, 5
dimensions (h x w):	200 x 120 mm

M17 – module 3 phase hand-held ammeters 3 × 20 A / 40 A



Description:
Module for measuring the three-phase current consumption of the entire superstructure, or for measuring the current on the connected module: M19, M20, M25, etc. Measurement range from 0 ÷ 20 A. Ammeters can be momentarily overloaded twice. The devices measure the effective value of the current in the frequency range of 40 Hz to 100 Hz, they are calibrated at a frequency of 50 Hz. The devices have a zero-position tumbler, for setting the pointer to 0. Outputs from the module and connection with the environment are inside the superstructure.

Parameters

maximum operating voltage:	400V AC
type of measuring devices:	analogue
ammeter load capacity:	20 / 40 A AC
accuracy class of devices:	1.5
measuring device:	magnetoelectric
operating frequency:	40 ÷ 100 Hz
dimensions (h x w):	200 × 300 mm

Measuring instruments modules

M23 – circuit ringer module

Description:

The buzzer allows finding a wire in a bundle, a broken connection, a short circuit, checking the connection, etc. Measurement with the supplied measuring tips. A short circuit is indicated by sound and an indicator light.

Self-powered: 2 AA batteries.

Parameters

supply voltage:	3 V DC (2 x AA)
dimensions (h x w):	200 x 60 mm

M26 - TrueRMS Digital Multimeter Module

Description:

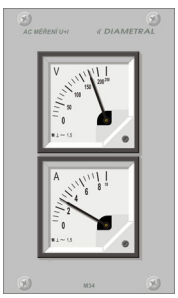
Professional multimeter module with True RMS classification and CATIII 600V protection. It meets the cETLis certification and contains a number of superior functions, for example low-impedance voltage measurement (LoZ), non-contact voltage measurement (NCV), measurement of capacitor capacity, frequency, resistance or temperature.

Dual LCD 6000 display with bar graph for analog display of values. Measurement of UDC, UAC, IDC, IAC, R, C, f, continuity, diodes. HOLD function, automatic range switching.

Parameters

power voltage:	6 x AA battery
AC voltage:	60 mV / 600 mV / 6 V / 60 V / 600 V
DC voltage:	60 mV / 600 mV / 6 V / 60 V / 600 V
AC current:	600 µA/ 6000 µA/ 60 mA / 600 mA / 6 A / 10 A
DC current:	600 µA/ 6000 µA/ 60 mA / 600 mA / 6 A / 10 A
resistance:	600 Ω / 6 kΩ / 60 kΩ / 600 kΩ / 6 MΩ / 60 MΩ
capacity:	10 nF / 100 nF / 1000 µF/ 100 mF
temperature:	- 40 °C - +1000 °C
frequency:	10 Hz - 10 MHz
dimensions (h x w):	200 x 120 mm

M34 – 250 VAC analogue U I meter module; 15 A



Description:

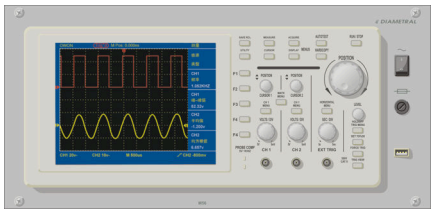
Module for immediate control of the single-phase input voltage of the superstructure and the total drawn current of all consumers. It is possible to order a connection for measuring only part of the superstructure or a single module, for example the M02 module.

Parameters

maximum operating voltage:	250 V AC [U]; 400 V AC [A]
type of measuring devices:	analogue
accuracy class of devices:	1.5
measuring device:	magnetoelectric
operating frequency:	40 ÷ 100 Hz
pointer deflection:	80°
scale length:	57.2 mm
dimensions (h x w):	200 x 120 mm

Measuring instruments modules

M56 – 30 MHz digital two-channel oscilloscope module with color LCD display



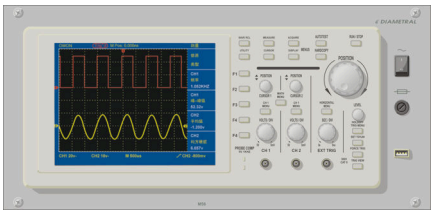
Description:

Digital two-channel real-time oscilloscope, Twenty automatic measurement functions. USB communication. Saving and viewing waveforms. Computational functions. Color LCD display with high resolution and contrast. Two measuring lines.

Parameters

bandwidth:	30 MHz
sample rate:	100 MS/s
input:	DC, AC, GND
Input impedance:	1 MOhm ± 2% in parallel with 20 pF ± 5 pF
max. Input voltage:	300 V sp - sp
recording length:	5000 points per channel
display size:	7.8”, 640 × 480 pixels
dimensions (h x w):	200 x 420 mm

M57 – 100 MHz digital two-channel oscilloscope module with color LCD display



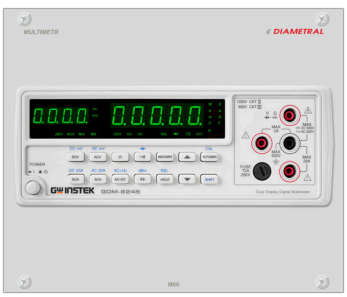
Description:

Digital two-channel real-time oscilloscope. Twenty automatic measurement functions. USB communication.Saving and viewing waveforms. Computational functions. Color LCD display with high resolution and contrast. Two measuring lines.

Parameters

bandwidth:	100 MHz
sample rate:	500 MS/s
input:	DC, AC, GND
input impedance:	1 MOhm ± 2% in parallel with 15 pF ± 5 pF
max. input voltage:	300 V sp - sp
recording length:	6000 points per channel
display size:	8”, 640 × 480 pixels
dimensions (h x w):	200 x 420 mm

M60 - TrueRMS Digital Multimeter Module



Description:

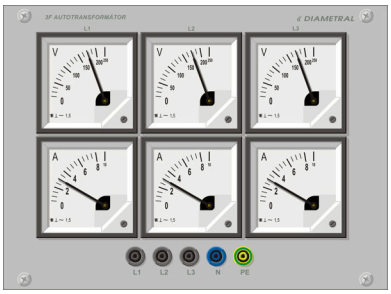
The multimeter module has high accuracy, 4 ¾ digit display and auto range function.++

Parameters

DC voltage (input resistance 10 Mohm)	500mV, 5V, 50V, 500V, 1000V
AC Voltage (TRUE RMS)	500mV, 5V, 50V, 500V, 1000V
DC current	500 uA, 5 mA, 500 mA, 2 A, 20 A
AC current (TRUE RMS)	500 uA, 5 mA, 500 mA, 2 A, 20 A
Resistance	500 Ohm - 20 MOhm
Capacity	5nF, 50nF, 500nF, 5uF, 50uF
Additional functions and parameters	acoustic continuity test - up to 5 Ohm
Frequency (input level - sine)	mV: 10 Hz - 50 kHz: >120 mV; 50 kHz - 150 kHz: > 200 mV 5 V - 50 V: 10 Hz - 200 kHz: >1.2 V 500 V: 20 Hz - 1 kHz: > 12 V
Power supply from the VarioLAB+	230 VAC / 50 - 60 Hz
superstructure dimensions (h x w):	200 x 240 mm

Measuring instruments modules

M82 – module of 3 phase analog voltmeters (230 V), ammeters (10 A) and output outlets



Description:

Module for measuring the voltage at the output of the autotransformer and taking the three-phase current. Ammeters can be momentarily overloaded. The devices measure the range 40 - 100Hz, they are calibrated at 50Hz.

The instruments have a zero position tumbler. The outlets are for safety outlets.

Parameters

maximum operating voltage:	250 V AC
type of measuring devices:	analog
ammeter load capacity:	10 / 15 A AC
accuracy class of devices:	1.5
measuring device:	magnetoelectric
operating frequency:	40 ÷ 100 Hz
dimensions (h x w):	200 x 270mm

M89 – programmable network analyzer module (A, V, W, f), RS-232 output

Description:

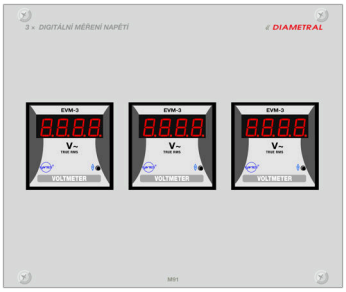
Universal AC VA meter with additional functions for network analysis: voltage, current, active power, frequency and with calculation of reactive power, apparent power and cos fi. The basis of the device is a single-chip microcontroller and a true RMS converter, which guarantees the device good accuracy, stability and easy operation. Insulation resistance, AC/DC voltage and resistance meter, large display 6000 units.

Powering the module from the instrument panel is subordinate to the M08 or M32 module.

Parameters

supply voltage:	80...250 V AC/DC
ranges:	0...10 / 120 / 250 / 450 V
data output:	RS232
dimensions (h x w):	200 x 120 mm

M91 – module of three digital voltmeters 10 – 600 V AC



Description:

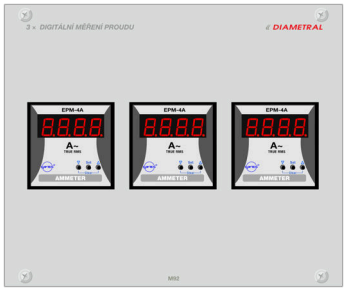
Three independent digital voltmeters for measuring AC voltage over a wide range of values. It measures the effective voltage value and stores the min. and max. values. In the event of a power failure, the measured data will remain in memory. Powered from the instrument panel, the module is subordinate to the M08 or M32 module.

Parameters

supply voltage:	230 V AC / 50 Hz
voltage measurement range:	10 - 600 V AC
accuracy:	1% +/- 1 digit
mains connection:	1 phase, two-wire (each device separately)
dimensions (h x w):	200 x 240 mm

Measuring instruments modules

M92 – module of three digital ammeters 70 mA - 200 A AC



Description:

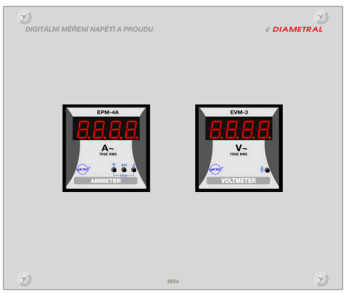
Three independent digital ammeters for measuring alternating current in a wide range of values. It measures the effective value of the current and stores the maximum, average and instantaneous value.

In the event of a power failure, the measured data will remain in memory. Power supply from the instrument panel, the module is subordinate to the M08 or M32 module.

Parameters

supply voltage:	230 V AC / 50 Hz
current measurement in the range:	70 mA - 200 A AC
accuracy:	1% +/- 1 digit
otherfunctions:	hysteresis function and adjustable limit values
dimensions (h x w):	200 x 240 mm

M94 – single-phase digital ammeter module up to 15 A AC and voltmeter up to 250 V AC



Description:

Digital ammeter and voltmeter for measuring alternating current and voltage in a wide range of values with memory storage even in the event of a power failure. Power supply from the instrument body, subordinate to the M08 or M32 module.

Parameters

supply voltage of both devices:	230 V AC / 50 Hz
current measurement in the range:	70 mA - 200 A AC
other functions of the ammeter:	hysteresis function and adjustable limit values
voltage measurement in the range:	10 - 600 V AC
accuracy:	1% +/- 1 digit
network connection:	1 phase, two-wire (each device separately)
dimensions (h x w):	200 x 240 mm

M95 – 3 phase programmable digital multimeter module

Description:

The three-phase network analyzer displays up to 22 electrical network parameters. 4 separate displays. 6 methods for energy calculation, two electricity meters, two digital inputs, two impulse outputs, display of maximum and minimum measured value, communication via RS-485.

Power from the instrument panel, it is subordinate to the M08 or M32 module.

Parameters

supply voltage of both devices:	230 V AC / 50 Hz
current display in the range:	50 mA - 10 kA AC
ammeter range:	50 mA - 5.5 A AC
voltage measurement in the range:	10 - 300 V AC (LN), 10 - 500 V AC (LL)
accuracy:	1% +/- 1 digit
data communication:	RS-485 MODBUS RTU
dimensions (h x w):	200 x 180 mm

Micro soldering iron module

M12 – micro soldering iron module 80 ÷ 450 °C / 35 W

Description:

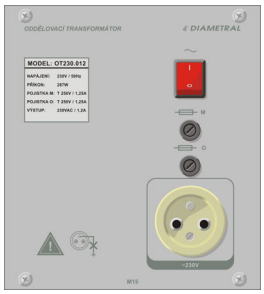
Micro soldering iron with stepless temperature regulation 80 ÷ 450 °C. Display of real and set temperature by LED display with automatic switching. Operating states are indicated by means of three LEDs. The switching of the heating body of the soldering tip is done electronically when the alternating voltage passes through zero. The micro soldering iron is equipped with logic for connecting the SBL530.1B automatic switch-off.

Parameters

supply voltage:	230 V / 50 Hz
Input power:	35 W
heating element switching:	in zero
pen weight:	120 g
dimensions (h x w):	200 x 120 mm

Modules of separating transformators

M15 – separating transformator module 230 V / 230 V / 1.2 A



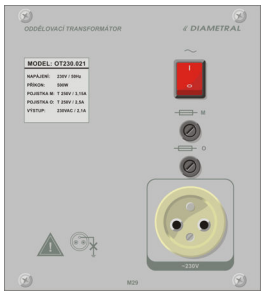
Description:

separating transformator for separating the mains voltage from the connected device. The output through the 230 V outlet is protected by a fuse. The transformer is dimensioned for continuous supply of maximum power to theload.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	1.2 A
galvanic isolation of the output from the supply network:	yes - 4 kV
outputprotection:	T 250 V / 1.25 A
dimensions (h x w):	200 x 180 mm

M29 – separating transformator module 230 V / 230 V / 2.1 A



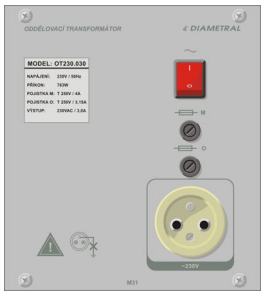
Description:

separating transformator for separating the mains voltage from the connected device. Output via a 230V outlet protected by a fuse. The transformer is dimensioned for continuous supply of maximum power to the load.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	2.1 A
galvanic isolation of the output from the supply network:	yes - 4 kV
output protection:	T 250 V / 2.5 A
dimensions (h x w):	200 x 180 mm

M31 – separating transformator module 230 V / 230 V / 3.0 A



Description:

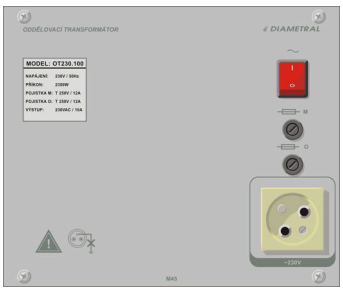
separating transformator for separating the mains voltage from the connected device. The output through the 230 V outlet is protected by a fuse. The transformer is dimensioned for continuous supply of maximum power to the load.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	3.0A
galvanic isolation of the output from the supply network:	yes - 4 kV
output protection:	T 250 V / 3.15 A
dimensions (h x w):	200 x 180 mm

Modules of separating transformators

M45 – separating transformator module 230 V / 230 V / 10 A



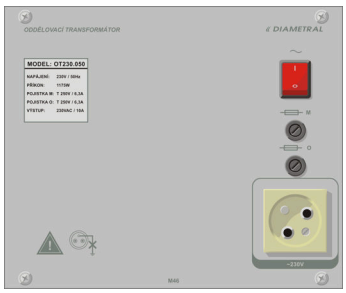
Description:

Separating transformer for separating the mains voltage from the connected device. The output through the 230 V outlet is protected by a fuse. The transformer is dimensioned for continuous supply of maximum power to the load.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	10 A
galvanic isolation of the output from the supply network:	yes - 4 kV
output protection:	T 250 V / 12.5 A
dimensions (h x w):	200 x 240 mm

M46 – separating transformator module 230 V / 230 V / 5 A



Description:

Separating transformer for separating the mains voltage from the connected device. Output via a 230 V outlet protected by a fuse. The transformer is dimensioned for continuous supply of maximum power to the load.

Parameters

supply voltage:	230 V / 50 Hz
maximum output current:	5 A
galvanic isolation of the output from the supply network:	yes - 4 kV
output protection:	T 250 V / 6.3 A
dimensions (h x w):	200 x 240 mm

M98 – 3 phase separating transformator module 3 × 230 / 400 V, 3 A

Description:

Three-phase separating transformator for separating the modules in the superstructure from the external network located inside the instrument superstructure.

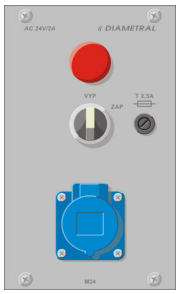
Power supply from the instrument body, the module is subordinate to the M32 module.

Parameters

supply voltage:	3 x 230 V / 400 V AC / 50 Hz
output voltage:	3 x 230 V / 400 V AC / 50 Hz
output current:	3 x 3 A AC
protection fuses:	T 250V / 3.15 A
dimensions (h x w):	200 x 120 mm

Fixed AC (alternating current) voltage source modules

M24 – AC source module 24 V / 2 A 1 F 1 × outlet + indicator light + switch



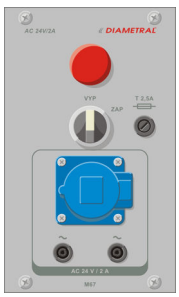
Description:

Drawer under the hinged lid. Indicator light, fuse and switch. The module is subordinate to the M08 or M32 module, it is switched off when the superstructure is switched off.

Parameters

supply voltage:	230 V / 50 Hz
output voltage:	24 V / 50 Hz
maximum output current:	2 A
dimensions (h x w):	200 x 120 mm

M67 – AC source module 24 V / 2 A 1F 1 × outlet + safety outlets + indicator light + switch



Description:

Power supply with safety outlets and one outlet under a hinged lid. The module contains an indicator light, a fuseand a switch. The module is subordinate to the M08 or M32 module. It is turned off when the superstructure is turned off.

Parameters

supply voltage:	230 V / 50 Hz
output voltage:	24 V / 50 Hz
maximum output current:	2 A
dimensions (h x w):	200 x 120 mm

M87 – AC source module 6 - 12 - 24 V / 2A

Description:

A fixed source of small alternating voltage with the possibility of switching the output voltage value with a rotary switch. Switch and LED signaling. The voltage is output to the safety terminals. Protection with an input fuse.

Parameters

supply voltage:	230 V / 50 Hz
output voltage:	6 - 12 - 24 V DC
fixed current:	2 A
input fuse:	fuse T 250 V / 0.4 A
dimensions (h x w):	200 x 120 mm

Fixed AC (alternating current) voltage source modules

M102 – AC source module 6 - 12 - 24 - 48 V / 2.0 A

Description:
Fixed source of small alternating voltage with switching of the output voltage value with a rotary switch. Switch and signaling of the output voltage with a light. The voltage is output to the safety terminals. Protection with an input fuse.

Parameters

supply voltage:	230 V / 50 Hz
output voltage:	6 - 12 - 24 - 48 V DC
fixed current:	2 A
input fuse:	fuse T 250 V / 0.4 A
dimensions (h x w):	200 x 120 mm

Variable autotransformer modules

M51 – three-phase autotransformer module 3 × 230 V / 400 V / 2 A

Description:

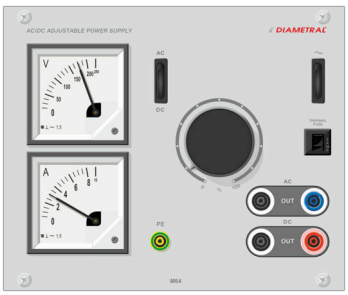
Three-phase variable non-separated AC voltage source. Securing with reversible fuses. Illuminated switch to indicate when the device is turned on. Each phase has its own indicator light. Source output with safety terminals. Output voltage and current values are displayed by analog measuring devices. The transformer is dimensioned for continuous supply of maximum power to the load.

Parameters

supply voltage:	3 x 230 V / 50 Hz, Y
output voltage:	3 × < 5 ÷ 230 V, Y
maximum output current:	3 x 2.0A
protection: reversible	2.5 A
fuse dimensions (h x w):	200 x 450 mm

The source output is not galvanically isolated!

M52 – 230 V / 2 A autotransformer module with AC/DC switching option



Description:

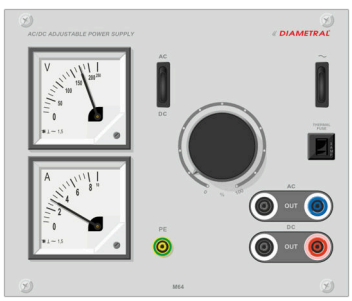
Single-phase adjustable, non-separated source of alternating voltage with the possibility of switching to a DC unfiltered source. Reversible fuse protection. Power-on indication with backlit switch and regulated voltage indicator light. Output via safety terminals. Output voltage and current values are displayed by analog measuring devices. The transformer is dimensioned for continuous supply of maximum power to the load

Parameters

supply voltage:	230 V / 50 Hz
output voltage:	<5 ÷ 230 V AC / DC
maximum output current:	2.0A
fuse:	2.5 A reversible fuse
dimensions (h x w):	200 x 240 mm

The source output is not galvanically isolated!

M64 – 230 V / 3 A autotransformer module with AC/DC switching option



Description:

Single-phase adjustable, non-separated source of alternating voltage with the possibility of switching to a DC unfiltered source. Reversible fuse protection. Power-on indication with backlit switch and regulated voltage indicator light. Output via safety terminals. Output voltage and current values are displayed by analog measuring devices. The transformer is dimensioned for continuous supply of maximum power to the load

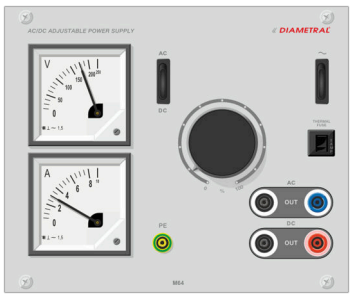
Parameters

supply voltage:	230 V / 50 Hz
output voltage:	<5 ÷ 230 V AC / DC
maximum output current:	3.0A
fuse:	fuse T3.15 A
dimensions (h x w):	200 x 240 mm

The source output is not galvanically isolated!

Variable autotransformer modules

M75 – 230 V / 6 A autotransformer module with AC/DC switching capability



Description:

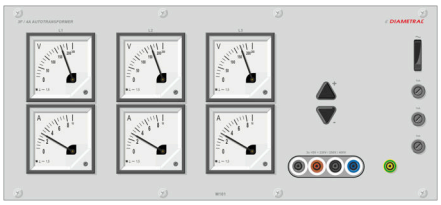
Single-phase adjustable, non-separated source of alternating voltage with the possibility of switching to a DC unfiltered source. Securing with a tube fuse. Illuminated switch and regulated voltage indicator light. Source output on safety terminals. Output voltage and current values are displayed on analog instruments. The transformer is dimensioned for continuous supply of maximum power to the load.

Parameters

supply voltage:	230 V / 50 Hz
output voltage:	<5 ÷ 230 V AC / DC
maximum output current:	6.0A
fuse:	fuse T 6 A
dimensions (h x w):	200 x 240 mm

The source output is not galvanically isolated!

M101 – 3 phase autotransformer module, 0 - 100% Uprim / 4A



Description:

Three-phase autotransformer with variable output voltage, protected against short circuit and overload of the output terminals by a three-phase circuit breaker. Setting the output voltage of the adjustable autotransformer using the + / - buttons.

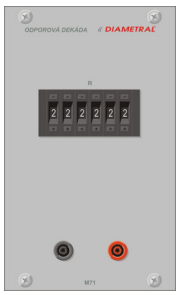
Parameters

supply voltage:	any voltage up to 3 × 400 / 230 V / 50 Hz
output voltage:	0 - 100% of input voltage
output current protection:	4 A max
dircuit breaker	3×4 A/C
dimensions (h x w):	200 x 450 mm

The source output is not galvanically isolated!

Modules of decades

M71 – resistance decade module



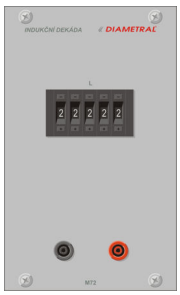
Description:

A decade of resistance. The resulting value is selected with the "+" and "-" buttons on the switch row. The value is shown on the mechanical display. Output through safety outlets.

Parameters

range:	1Ω ÷ 999999 Ω
smallest value change:	1 Ω
maximumsupply voltage:	30V DC / 50V AC
maximum power:	1W
dissipation tolerance:	<1%
temperature coefficient:	50ppm/K
dimensions (h x w):	200 x 120 mm

M72 – induction decade module



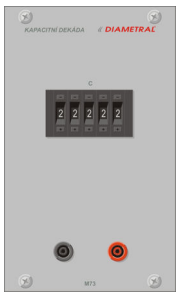
Description:

Induction decade. The resulting value is selected with the "+" and "-" buttons on the switch row. The value is shown on the mechanical display. Output through safety outlets.

Parameters

range:	1 µH ÷ 99.999 mH
smallest value change:	1 µH
maximum supply voltage:	30V DC / 50V AC
maximum current:	0.1 A
tolerance :	1 µH - 999 µH: <10%
	1 mH - 99 mH: <5%
dimensions (h x w):	200 x 120 mm

M73 – capacity decade module



Description:

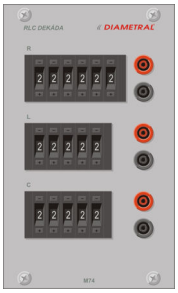
Capacity decade. The resulting value is selected with the "+" and "-" buttons on the switch row. The value is shown on the mechanical display. Output through safety outlets.

Parameters

range:	10 pF ÷ 999.99 nF
smallest value change:	10 pF
maximum supply voltage:	50V DC / 50V AC
tolerance:	<10%
dimensions (h x w):	200 x 120 mm

Modules of decades

M74 – resistance, inductance and capacitance decade module



Description:

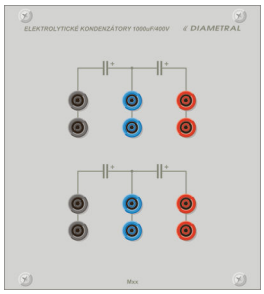
Decade with three independent sections for resistance, inductance and capacitance. Individual quantities are galvanically separated and have separate outputs. The resulting value is selected with the "+" and "-" buttons on the switch row. The value is shown on the mechanical display. Output through safety outlets.

Parameters

resistive decade:	see module M71
inductive decade	see module M72
resistive decade:	see module M73
dimensions (h x w):	200 x 120mm

Modules of passive elements

M77 – 1000 µF + 1000 µF / 500 µF / 400 V series capacitor module with lead-out center



Description:

Capacitors for laboratory experiments with rotating machines. Lines of clamps in black, blue and red colors. The module can be used for mains voltage up to 400V. This module is completely autonomous, without direct electrical connection to other devices or table modules.

Parameters

maximum voltage:	400 V
included elements:	capacitors 2 × 1000 µF and 1 × 500 µF/ 400 V
dimensions (h x w):	200 x 240 mm

M79 - 1000 µF / 100 V capacitor module

Description:

Capacitor for laboratory experiments with rotating machines. Clamps in black and red design. Due to the capacitor used, the module can be used for mains voltage up to 100V. This module is completely autonomous, without direct electrical connection to other devices or table modules.

Parameters

maximum voltage:	100 V
included elements:	capacitor 1000 µF
dimensions (h x w):	200 x 60 mm

M80 - 3 phase rectifier module 600 V / 20 A (six-pulse)

Description:

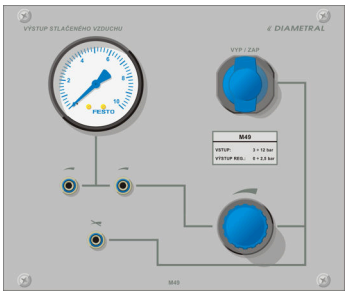
Six-pulse rectifier (6 diodes) with 5 terminals. Clamps in black, red design. The voltage is applied through the input terminals. The module is autonomous, without direct electrical connection to other devices or table modules.

Parameters

maximum voltage:	600 V AC
maximum current:	20 A (maximum current on the diodes)
dimensions (h x w):	200 x 60 mm

Modules of air outlets

M49 – compressed air outlet module with a precise 2.5 bar reduction valve



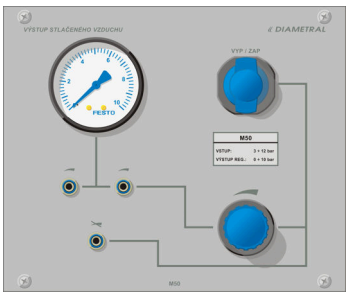
Description:

Regulated compressed air outlet with precise control valve for connecting pneumatic components, for example: pneumatic tools, spray guns, etc. Precision reduction valve, pressure gauge, outlet without regulation and two outlets for adjustable air. The main air shut-off can be used to shut off the compressed air supply. The module is connected to the local compressed air distribution.

Parameters

air inlet pressure:	3.0 ÷ 12.0 bar
outlet pressure unregulated:	dependent on inlet pressure
outlet pressure regulated:	0 ÷ 2.5 bar
outlet design:	quick coupling for hoses dia. 6 mm
dimensions (h x w):	200 x 240 mm

M50 – compressed air outlet module with precision 10.0 bar pressure reducing valve



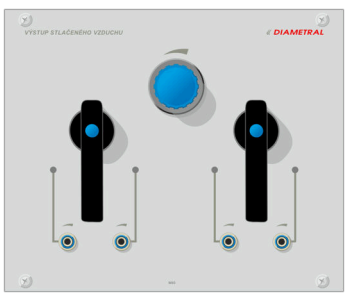
Description:

Regulated compressed air outlet with precise control valve for connecting pneumatic components, for example: pneumatic tools, spray guns, etc. Precision reduction valve, manometer, outlet without regulation and two outlets for regulated air. The main air shut-off can be used to shut off the compressed air supply. The module is connected to the local compressed air distribution.

Parameters

air inlet pressure:	10 ÷ 12.0 bar
outlet pressure unregulated:	dependent on inlet pressure
outlet pressure regulated:	0 ÷ 10 bar
outlet design:	quick coupling for hoses dia. 6 mm
dimensions (h x w):	200 x 240 mm

M93 – compressed air outlet module, two valves, nominal flow rate 600 l/min



Description:

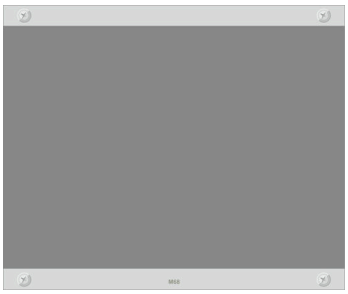
Two independent compressed air valves with upstream control valve 0.1 bar to 10 bar.
Each of the valves is connected to two outlets with switching.

Parameters

nominal air flow rate:	600 l / min
fange of output pressure of the reducing valve:	0.1 bar - 10 bar
range of air supply pressure:	10 - 12 bar
valve function:	output "A", off, output "B"
dimensions (h x w):	200 x 240 mm

Storage spaces

M68 – storage space 240 mm continuous



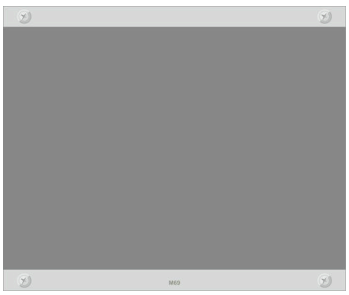
Description:

Storage space for items up to A4 size included. Can only be used in conjunction with M69 modules. By combining them, you can create a space of different widths.

Parameters

internal height:	161 mm
internal depth:	285 mm
dimensions (h x w):	200 x 240 mm

M69 – storage space 240 mm outermost



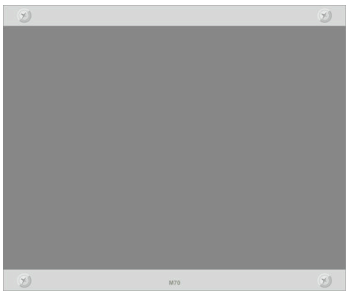
Description:

Storage space for items up to A4 size included. It can only be used in conjunction with the second M69 module, or with the M68 module. By combining them, you can create a space of different widths.

Parameters

internal height:	161 mm
internal depth:	285 mm
orientation:	left and right
dimensions (h x w):	200 x 240 mm

M70 – storage space 240 mm closed



Description:

Lockable storage space for items up to and including A4 size, for separate installation in the superstructure.

Parameters

internal height:	161 mm
internal depth:	285 mm
dimensions (h x w):	200 x 240 mm

This catalog was written on the basis of current knowledge and experience and does not fully describe all the possibilities of the VarioLab+ system. Due to the continuous expansion of the VarioLab+ system, the catalog only contains components that were known at the time of printing the catalog. Diametral products are constantly being developed and improved. Technical parameters and design may be changed without prior notice. Images are illustrative only. For up-to-date information or help with workplace design, please contact the Diametral® salespeople.

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