

TEKLABNet workstation



Workstation Frames		
TABSYSL18	Concept workstation frame, low model, 1800 x 900 mm	1 x
Equipment Panels		
PANCONL18	Concept device panel, 1.8 m, low model	1 x
Power Supply Units		
(S1) SU1	1-phase supply unit, 230 V	1 x

Modules		
(1) ELPSL2	1-phase schuko socket outlets, 2 pcs	1 x
(2) AFG1022	Arbitrary function generator, 25 MHz	1 x
USB1BT	USB-interface back side of the panel	1 x
(3) FLUKE8845A	Digital precision multimeter, 6.5 digits	1 x
(4) TBS1052C	Digital oscilloscope, 50 MHz, 1 GS/s, 2 channels, education model	1 x
USB1BT	USB-interface back side of the panel	1 x
(5) ACP40	1 phase programmable AC power supply, 0-250 V, 0-4 A	1 x
ACPETHERNET	Ethernet connection and control software for ACP power supply	1 x
(6) DCACPX400S	Variable DC power supply, 0-60 V, 20 A, 420 W	1 x
(7) TLMB12	Constant DC power supply, 2x12/15V,1A; 5/3.3V,3A; 1.5/3/4.5/5/6/9V,1A	1 x
(8) ELPSL2	1-phase schuko socket outlets, 2 pcs	1 x
(9) LAN-8	LAN switch, 8 ports	1 x
Accessories		
CPULUKIT	PC rack, lockable, keyboard tray, 230 x 430 x 430 mm	1 x
C20PU	Chair, black, polyurethane	1 x
C20PU	Chair, black, polyurethane	1 x

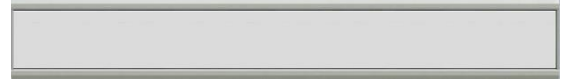
TABSYSL18 Concept workstation frame

- ESD-painted steel frame
- L-shaped ergonomic legs
- Table top with laminate surface, durable rounded plastic edges, colour light speckled grey
- Adjustable height: 670-1120 mm
- Adjustment screws to eliminate the roughness of the floor
- Load capacity 500 kg, evenly loaded
- Table top dimensions: 1836 x 900 mm



PANCONL18 Concept device panel

- Panel for integrated electrical equipment
- Installed on the table top
- Structure of the panel made of ESD powder painted steel
- Panel equipped with modular device system: devices can be easily added and removed
- Integrated modules are covered with polyester film to ensure long lifetime for the markings in the front panel
- Panel top can be opened
- All connectors are located at the bottom of the panel which enables placing the panel against a wall
- Panel width: 1830 mm, max 7 modules



SU1 1-phase supply unit

- Operating voltage: 230 V \pm 10 % AC, 50-60 Hz
- Main switch for the workstation with START position
- Green indicator light
- Integrated emergency switch, reset from the main switch
- Automatic restart prevention system e.g. after power failure
- 16 A thermal overload protector
- Fault current protection 0.03 A for all devices connected to the supply unit
- Earth terminal screw
- Outlets for the device modules
- Dimensions: 1/2-module, 125(W) x 200(H) mm



ELPSL2 1-phase socket outlets

- 2 pcs earthed schuko socket outlets
- Dimensions: 1/4-module, 62.5(W) x 200(H) mm



AFG1022 Arbitrary function generator

- Dual-channel, 25 MHz sine waveforms, 12.5 MHz square waveforms
- 14 bits, 125 MS/s arbitrary waveforms with 8 k points record length
- Display: 3.95-inch, resolution 480 by 320, colors 65,536
- Waveforms Sine, Square, Pulse, Ramp, Noise, and 45 frequently used arbitrary waveforms
- Amplitude 1 mVp-p to 10 Vp-p into 50 Ω loads
- Continuous, sweeping, burst, and modulation modes (AM, FM, PM, ASK, FSK, PSK, PWM)
- Frequency setting resolution: 1 μ Hz or 12 digits
- Arbitrary waveform vertical resolution: 14 bits
- 64-MByte internal non-volatile memory for arbitrary waveform storage



- Standard USB host/device for memory expansion and remote control
- Free ArbExpress makes user defined waveforms editing extremely easy through an external USB memory stick
- Standard accessories: Safety and Compliance Instructions, Documentation CD, Certificate of calibration; USB cable x 1, Type A to Type B, BNC cable x 2, Fuse, cartridge (5 x 20 mm, 0.5 A, 250V, time-delay) Fuse, cartridge (5 x 20 mm, 1 A, 250 V, time-delay)
- Dimensions: full module, 250(W) x 200(H) mm

USB1BT USB connection

- Single USB-connection for connecting PC to a panel device
- Type B connector at the back of the device panel

FLUKE8845A Digital precision multimeter

- 6.5 digit dual display, graphics
- 2 x 4 ohms 4-wire measurement technique
- Math functions: zero, dBm, dB, MX+B, of set, DCV ratio and TrendPlot, histogram, statistics (min/max/average/standard deviation) and limit test
- Decibels (dB and dBm) with variable reference impedance and audio power measurement capability
- Remote operation via IEEE 488, RS-232 and Ethernet interface
- Trendplot™ paperless recorder mode, statistics, histogram
- Standard accessories: Manuals, TL71 test lead set, FlukeView Forms basic
- Dimensions: Full module, 250(W) x 200(H) mm



DC voltage

Range	100 mV...1000 V
Best resolution	100 nV
Best accuracy	$\pm(0.0035 \% \text{ rdg} + 0.0005 \% \text{ range})$

AC voltage

Range	100 mV...750 V
Best resolution	100 nV
Best accuracy	$\pm(0.06 \% \text{ rdg} + 0.03 \% \text{ range})$

DC current

Range	100 μ A...10 A
Best resolution	100 pA
Best accuracy	$\pm(0.05 \% \text{ rdg} + 0.005 \% \text{ range})$

AC current

Range	10 mA...10 A
Best resolution	1 nA
Best accuracy	$\pm(0.1 \% \text{ rdg} + 0.04 \% \text{ range})$

Resistance

Range	100 Ω ...100 M Ω
Best resolution	100 $\mu\Omega$

Best accuracy $\pm(0.01 \% \text{ rdg} + 0.001 \% \text{ range})$

Frequency

Range 3 Hz...300 kHz

Best resolution 0.1 μHz

Best accuracy $\pm(0.01 \% \text{ rdg})$

TBS1052C Digital storage oscilloscope

- Bandwidth: 50 MHz
- 2 channels
- Sample rate (each channel): 1 GS/s
- Record length (each channel): 20 k points
- Vertical resolution: 8 bits
- Vertical sensitivity: 1 mV - 10 V / DIV
- Time base range (s/div): 2 ns - 100 s
- 7 inch WVGA (800X480) Active TFT Color Display
- 32 automated measurements
- Dual window FFT, simultaneously monitors both the time and frequency domains
- Integrated Courseware feature: Lab content can be loaded directly onto the oscilloscope, Students can review lab content, perform step-by-step instructions, record lab results and create lab reports all on the scope
- Dual channel frequency counter
- Zoom Function
- Advanced triggers including pulse and line-selectable video triggers
- Autoset and signal auto-ranging
- Autoset enable/disable feature with password protection
- USB 2.0 host port on the front panel for quick and easy data storage
- USB 2.0 device port on rear panel for easy connection to a PC
- Multiple language user interface
- Dimensions: 1 $\frac{3}{4}$ module, 437.5(W) x 200(H) mm
- Standard accessories: passive probes (one per channel), OpenChoice software, Traceable certificate of calibration - NIM/NIST, CD including: Courseware Editor software, Example Courseware labs, oscilloscope tutorials



USB1BT USB connection

- Single USB-connection for connecting PC to a panel device
- Type B connector at the back of the device panel

ACP40 Programmable 1-ph. AC power supply

- Output values: 0-250 V, 0-4 A, max. 900 VA
- Galvanic isolation
- Digital display for viewing output voltage, current and settings
- Setting accuracy and display resolution: 1 V / 0.1 A
- Measuring accuracy: voltage ± 2 V, current ± 0.1 A
- Overvoltage protection setting 0-250 V, overcurrent protection setting 0-4 A with OFF-position
- Short-circuit protected
- Output from 4 mm safety terminals or from unearthed socket (one output active at a time)
- Output ON / OFF -buttons with indicator lights
- Automatic self-test and line voltage measurement when starting
- Stability feature for stabilizing output voltage
- Firmware update possibility
- Dimensions: 1/2-module, 125(W) x 200(H) mm



ACPETHERNET Ethernet connection and software for ACP power supply

- Ethernet connection for ACP power supply
- Control program
 - Fast two-way communication
 - Versatile user interface enables e.g. automatic measurements without programming
 - Advanced datalogging function enables e.g. simultaneous follow-up and saving of several quantities, or saving of an individual value by the snapshot function
- LabView-driver
 - Advanced TCP/IP based LabVIEW driver speeds up making own applications

DCACPX400S Adjustable DC power supply

- Output values: 0-60 V, 0-20 A, 420 W
- PowerFlex design gives variable voltage and current combinations within a maximum power range
- PowerFlex or fixed-range operation plus custom limits
- Constant voltage or constant current operation
- Variable OVP trips
- True analogue controls
- Voltage Setting: By coarse and fine controls
- Current Setting: By single logarithmic control
- Settings locking
- Independent digital voltage and current meters for each output with 4 digit resolution
- Voltage meter:
 - Resolution: 10 mV
 - Accuracy: 0.1 % of reading ± 2 digits
- Current Meter:
 - Resolution: 10 mA



- Accuracy: 0.3 % of reading \pm 20 mA
- Ripple & noise: Typically < 3 mV rms (CV mode)
- Switchable local or remote sensing
- View Settings
- LED indication of Output On, V/I Limits, CV, CI, Power Limit
- Silent fan-free cooling
- DC output on/off switch
- All outputs are intrinsically short circuit proof, and are protected against external voltages and reverse currents
- Output terminals: Universal 4mm safety binding posts on 19mm (0.75") spacing. Terminals can accept fixed shroud 4 mm plugs, standard 4 mm plugs, fork terminals and bare wires
- AC Input: 110 to 240 volts \pm 10 % 50/60Hz
- Dimensions: 1/2 module, 125(W) x 200(H) mm

TLMB12 Fixed DC power supply

- Linear power supply
- 4 outputs, floating with respect to each other
- Outputs can be connected in series or in parallel
- Output values:
 - Output 1: 1.5 V / 3 V / 4.5 V / 5 V / 6 V / 9 V, 1 A
 - Output 2: 5 V / 3.3 V, 3 A
 - Output 3: 12 V / 15 V, 1 A
 - Output 4: 12 V / 15 V, 1 A
- Current limitation indicated by a LED
- Ripple: < 10 mVpp
- All outputs are short-circuit protected
- Voltage accuracy better than 100 mV
- Output from 4 mm safety terminals
- Dimensions: 1/2-module, 125(W) x 200(H) mm



ELPSL2 1-phase socket outlets

- 2 pcs earthed schuko socket outlets
- Dimensions: 1/4-module, 62.5(W) x 200(H) mm



LAN-8 Ethernet switch

- 8-port 1 G Ethernet switch
- 1 x RJ45 at the front panel for an optional device
- 1 x RJ45 at the table frame for laboratory network connection
- 6 x RJ45 inside the module for panel equipment
- Dimensions: 62.5(W) x 200(H) mm



CPULUKIT PC rack

- PC rack for desktop computer
- ESD-painted steel frame
- Shelf for storing keyboard
- Lockable, lock not included
- Maximum dimensions for PC: 230(W) x 430(D) x 430(H) mm



C20PU Chair

- User-friendly and quick adjustability
- Large, ergonomically designed seat and backrest and lumbar support
- Black
- Polyurethane
- Height/backrest/tilt adjustment
- Castors with load-sensitive brakes
- Seat height: 440-620 mm

