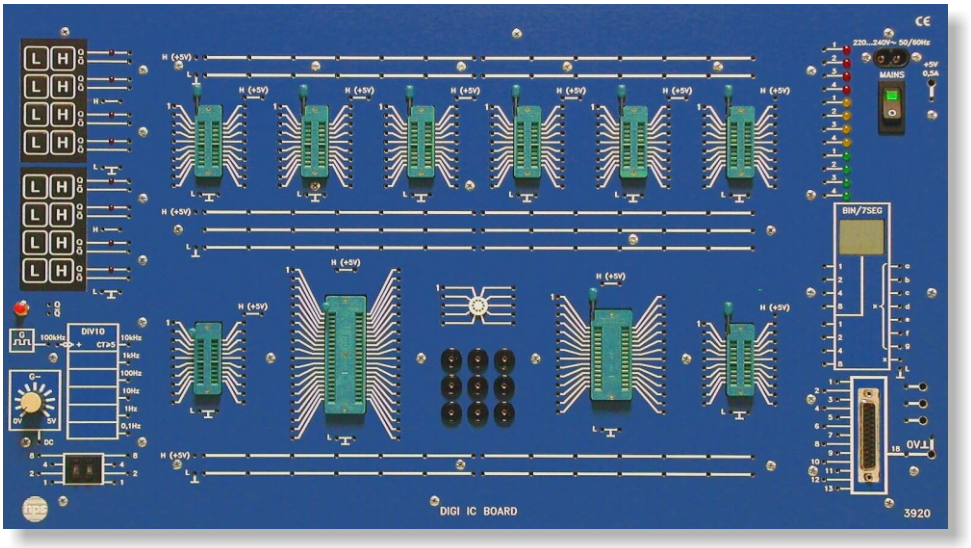
DIGI IC BOARD

Type 3920



DIGI IC BOARD (Type 3920)

- **Universal exercise unit for assembling circuits with commercial IC components**
- **Fast experiment setup without soldering**
- **Contains all input and output units and power supply for fast experiment setup**
- **All DIL-IC sockets with quick-action clamp**
- **Combinable with external equipment**

With the DIGI IC BOARD hps SystemTechnik offers a universal device ideally suitable for setting up experiments with commercial components in the fields of

- **digital technology** and
- **microprocessor Technology**.

Function groups of the DIGI IC BOARD

- **2 input keyboards**
  with 4 pairs of keys each for generating and resetting high and low states. High states are indicated by red LEDs.
  When key „L“ is kept pres-sed and key „M“ is shortly pressed at the same time, „keying“ is allowed (not debounced in keying mode).
- **Pushbutton**
  bounce-free, with the outputs Q and $\overline{Q}$
- **Clock generator**
  100 kHz, frequency divider can be connected
- **Frequency divider**
  6-fold, with 10s division: 10 kHz, 1 kHz, 100 Hz, 10 Hz, 1 Hz, 0.1 Hz. The frequency divider can also be operated with an external clock generator.
- **Signal source**
  e. g. for operating an A/D converter
- **26 jacks (2 mm)**
  for tapping off high states. All jacks are connected directly to +5 V.
- **25 jacks (2 mm)**
  for tapping off low states. All jacks are connected directly to ground (GND).
- **8 IC sockets (24-pin)**
  for DIL-ICs with quick-action clamps
- **IC socket (28-pin)**
  for DIL-ICs with quick-action clamps
- **IC socket (40-pin)**
  for DIL-ICs with quick-action clamps
- **Round socket (10-pin)**
  for ICs and transistors
- **9 branching points**
  for setting up experiments with commercial components such as LEDs, resistors and capacitors
- **Coding switch**
  2-digit hexadecimal/dual coding switch with push-buttons for counting up (+) and down (-). The outputs are designated 1, 2, 4 and 8 according to their valence.
- **LED display**
  12-fold LED display with driver, divided into three groups with the colours red, yellow and green

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Competence in Training

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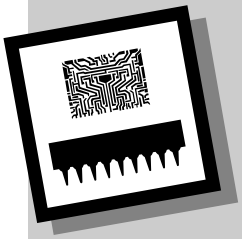

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- **7-segment display**
  2-digit 7-segment display with dual/7-segment decoder. Two 4-bit binary numbers can be entered through inputs 1, 2, 4 and 8 and displayed in hexadecimal form.
- **Adapter**
  for adapting 2 mm connections to 25-pin SUB-D connector (e. g. connection of a PC)
- **4 adapter fields**
  for adapting 4 mm to 2 mm connections
- **14 jack rows**
  2 mm jacks for supplying the ICs used with high and low states. Furthermore these jack rows can be used as distributors for assembled circuits and as through-connection to other units.
- **2 DC voltage sources**
  for internal power supply and for connecting external units, e. g. UNIVERSAL BOARD 1 (Type 8175) and UNIVERSAL BOARD 2 (Type 8176)

All IC sockets and function groups are wired to 2 mm connecting leads and plugs.

To conduct the experiments, the DIGI IC BOARD is placed on a table or suspended in an hps rack for demonstration purposes. The DIGI IC BOARD can be converted into a portable training unit by simply screwing it into a Box:
All the experiments can be conducted directly in this Box. Dust-free storage and protection against transport damages are further advantages of the Box version.

Accessories Recommended

- Set of Accessories (Type 3920.1), consisting of 2 mm connecting leads (120 pcs.)
- Box for DIGI IC BOARD (Type 3920.20)
- Set of ICs (Type 3920.5)

Expansion possibilities

- UNIVERSAL BOARD 1 (Type 8175)
- UNIVERSAL BOARD 2 (Type 8176)
- Module System for Digital Technology (Series 9400)

Technical data

Mains connection
- 220 V AC ... 240 V AC / 115 V AC (110 V AC); ca. 30 VA; 50 ... 60 Hz

Signal source
- Output voltage and current: approx. 0 ... 5 V DC / 10 mA, short-circuit-proof

DC voltage source for internal power supply
- Output voltage and current: +5 V / 3 A, short-circuit-proof, also for power supply of the plugged IC components

DC voltage source for external units
- Output voltage and current: +5 V / 0,5 A, short-circuit-proof

Clock generator
- Frequency: 100 kHz

Frequency divider
- Frequencies: 10 kHz, 1 kHz, 100 Hz, 10 Hz, 1 Hz, 0.1 Hz

TTL level
- At all high and low jacks and on the clock generator, frequency divider, 7-segment display, coding switch, pushbutton, input keyboard and LED displays

Mechanical data

The front panel of the DIGI IC BOARD is made of 5 mm thick Laminate, matt blue in colour with white engraving representing the built-in function groups.
The rear of the Board is protected with a grey plastic cover. Its shape allows the Board to be placed at an ergonomically favourable angle for example on a table.

Dimensions and weights
- Board version (Type 3920): 532 x 297 x 110 mm (w x h x d); weight: approx. 3.5 kg
- Box version (Type 3920 and Type 3920.20): 580 x 450 x 155 mm; weight: approx. 7 kg

Subject to technical modification.