

An ever-continuing development of the product range is a fundamental activity at ELFA. One example is the new agreement with the big supplier Honeywell. This agreement means among other things that ELFA now can offer you a completely new line of products: ultrasound sensors.

Today we have inductive and capacitive sensors, although by other manufacturers.
Honeywell is a renowned, world-leading name in this field. The new agreement entails advantageous access
"directly from the source", which in turn will benefit you, the customer.

We also offer you a range of limit switches with durable encapsulated models. Honeywell has managed to acquire a strong brand in industrial and production applications. You can find these products in conveyor belts, electromechanical units, ski lifts, aerospace and defence systems and control systems the world over.

You will find a number of their best products directly at ELFA.

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## Combination wall outlet

Eljo Trend Kombi wall outlet offers new possibilities when furnishing. Wall outlet with two types of outlet wells - 1 earthed mains plug and 2 for class 2 Euro mains plug.

| Example: <br> Type | Description | Stock no. | Price/each |
| :--- | :--- | :--- | ---: |
| E18 3087100 | Quick connection | $43-229-05$ | 13.50 |



## Better late than never!

Box for after mounting of forgotten switches and outlets. Fits bot single and dual plasterboards.


## Overvoltage protection for electric and telephone/data networks

ELFA stocks a large number of different interference suppression products for electrics and telephone/data, both for fixed installations and for direct connection to wall outlets.

| Example: |  |  |  |  |
| :--- | :--- | :--- | :--- | ---: |
| Type | Use | Mounting | Stock no. | Price/each |
| QTS4112 | Analogue telephony/data | DIN | $69-708-83$ | 34.20 |
| QTS38 | Mains 250 V/16 A | DIN | $69-709-09$ | 40.40 |
| QTS4062-1 | Data, ADSL modem | Chassis/wall | $69-708-67$ | 38.90 |
| QTS52 | Equipment protection |  |  |  |
|  | 250 V/16 A | Directly in wall outlet | 69-709-17 | 28.10 |

## Connect - allot - distribute

Distribution terminal blocks for practical solutions for connection and distribution of voltages in equipment and equipment cabinets. See www.elfa.se for complete range, technical data and prices.

Distribution terminal block flat blade/flat blade
Each pole has 6 outgoing flat blades 4 in, 24 out. Stock no.: 48-384-39
Price/each: 4.01

For cabinets
Multi-outlet extension leads made from aluminium profile, low profile, only 1 unit high, designed for mounting in 19" cabinets. Available in many different models, with overvoltage protection, filter and automatic fuses. Now also with IEC320 outlets. For further information and data see stock number 43-375-07 on www.elfa.se.

| Example: <br> Type | Description | No. of outlets | Stock no. | Price/each |
| :--- | :--- | :--- | :--- | ---: |
| 333.408 | IEC 320 m 10 A fuse 8 | $43-375-80$ | 93.90 |  |

## For desks

Combination multi-outlet extension lead for electric/ telephone/data with 4 angled earthed outlets and 2 RJ45 modular outlets. Mounting brackets.



## Industrial Ethernet switch with 5 ports

Ethernet switch with 5 ports for industrial applications. Supports both MDI and MDI-X. The ports are individually insulated and are set up automatically but can also be configured manually and separately. Wide input voltage and temperature range.

| Type | Description | Stock no. Price/each |  |
| :--- | :--- | :--- | :--- |
| SDW-550 | Ethernet-switch $10 / 100 \mathrm{Mbit} / \mathrm{s}, 5$ ports | $25-615-87$ | 183.00 |



Control/monitor voltage, current and phase - Carlo Gavazzi
A series of control and monitor relays for mounting in a standard central.

| Type | Detection | Stock no. Price/each |
| :--- | :--- | ---: | ---: |
| DPA51 Phase sequence, phase break (3-phase) | $37-542-07$ | 71.40 |
| DPB71 Over/under voltages, phase sequence, |  |  |
| phase break, (3-phase) | $37-542-15$ | 140.00 |
| DIA53 Overcurrent (1-phase) | $37-542-23$ | 66.00 |
| DIB71 Over/undercurrent (1-phase) | $37-542-31$ | 110.00 |
| DUB71 Over/undervoltage (1-phase) | $37-542-56$ | 110.00 |
| DUA52 Undervoltage (DC, 8-28 V) | $37-542-49$ | 57.70 |

## Terminal box

For splicing and distribution of mains cables, max $1.5 \mathrm{~mm}^{2}$.
Stock no.: 48-384-21
Price/each: 5.70

## Grommet with integrated

 terminal blockStraight, with earth connection Stock no.: 55-014-24
Price/each: 1.40

Distribution terminal block screw/flat blades 40 A
Each pole, screw connection, has 3 outgoing flat blades. 3 in,
9 out Stock no.: 48-384-13. Price/each: 1.48



## UNI-T UT33D

Small and handy with basic functions. Diode test. Manual ranging. Scale length 2000.
Stock no. 76-043-33
Price/each: 13.50

## UNI-T UT58B

Full size display. Also measures capacitance and temperature. Diode and transistor test. Automatic/ manual ranging. Scale length 2000. Stock no. 76-045-49
Price/each: 42.70

## UNI-T UT60E

Large display, TRMS display and RS232 port. Also measures capacitance, temperature, frequency and pulse ratio. Diode test. Automatic/ manual ranging. All inputs are fused. Scale length 4000.
Stock no. 76-084-17
Price/each: 97.00

## Brilliant!

High quality LED lamps from American INOVA. All lamps are supplied with batteries.

## Microlight

Key ring torch with LED producing a light beam up to 10 metres and visible light up to 1500 m . Withstands water. Stock no.: 80-955-15. Price/each: 8.46


X5
Instrument torch with five LEDs where each LED has an individual reflector. Produces a powerful light beam up to 45 metres and visible light up to 3500 metres. Watertight. Stock no.: 80-955-31. Price/each: 56.50

## Mighty Mouse 800

Circular connector series in small dimensions with very high performance for extreme weather and environmental conditions ( -65 to $+200^{\circ} \mathrm{C}$ ). For further information about the 800-series see stock number 44-300-05 on www.elfa.se.


Manufactured by Glenair


## Flexible solutions with a low profile

FFC flexible cables and FPC connectors for innovative solutions regarding connections in cramped spaces, or between fixed and mobile units. Double-sided contacts simplify connection, only one type of contact is needed. Application examples: printers, scanners, and monitors. Stocked with pole numbers from 10 to 50 . For other pole numbers and data see www.elfa se.


## Equipped tool case

Easy to bring along. For the home, school or work. Fore more information about the tools see stock number 80-103-10 on www.elfa.se.


Example: Contact. No. of poles 30 Stock no.: 43-500-39. Price/each: 1.72

Example: Cable. No. of poles 30
Stock no.: 55-615-68. Price/each: 2.07

## Mean Well power supply now at ELFA

ELFA introduces the manufacturer Mean Well, one of Taiwan's largest manufacturers of power supplies. The wide range includes open-frame power supplies with power outputs from 60 to 1000 W , power supplies for DIN rail 45 to 480 W, DC-/DC converters 25 to 100 W and lead-acid battery chargers. See www.elfa.se for the complete range.

| Example <br> Type |  |  |  |  |
| :--- | :--- | :--- | :--- | ---: |
| S-150-12 | Open-frame power supply | $12 \mathrm{~V}, 12.5 \mathrm{~A}$ | $69-260-83$ | 54.20 |
| DRP-24024 | Power supply for DIN rail | $24 \mathrm{~V}, 10 \mathrm{~A}$ | $69-770-94$ | 111.00 |
| SD-50A-24 | DC-/DC converter | $9.2-18 \mathrm{~V} / 24 \mathrm{~V}, 2.1 \mathrm{~A}$ | $69-060-85$ | 49.80 |
| PA-120P-13C | Lead-acid battery charger | $12 \mathrm{~V}, 7.2 \mathrm{~A}$ | $69-772-01$ | 68.80 |




## Industry multimeters Fluke 80 V-series

The Fluke 80 V-series replaces the earlier III-series. Extended scale length, larger display with higher digits and contrast with two positions, expanded resistance and capacitance ranges and protective holster of new design. Fluke $87-\mathrm{V}$ displays TRMS and also measures pulse width modulated signals (PWM motor controls) and temperature.

Fluke 83-V
Stock no.: 76-087-22. Price/each: 322.00
Fluke 87-V, TRMS
Stock no.: 76-087-55. Price/each: 386.00

## Accessories

| Type | Description | Stock no. | Price/each |
| :--- | :--- | :--- | ---: |
| ToolPak | Suspension device | $76-089-95$ | 25.40 |

## Upgraded ScopeMeter

Extended measuring and analysis capacity in the handheld oscilloscopes in the 190 -series. All models have an expanded waveform memory, 1200 to 3000 samples per channel. The 190C-models (colour display) have received a function for frequency spectrum analysis (FFT), two new trigger modes and possibility for automatic cursor measurements.

|  |  |  |
| :--- | :--- | :--- | :--- |
| Example b/w display |  |  |
| Description |  |  |
| Type Stock no. Price/each  <br> Fluke 192B (V.7) ScopeMeter $60 \mathrm{MHz}, 500 \mathrm{MS} / \mathrm{s}$ $76-235-27$ 2615.00 |  |  |

## Example colour display

Type Description Stock no. Price/each

Manufactured by Fluke
Fluke 196C (V.7) ScopeMeter 100 MHz, 1 GS/s $\quad 76-235-57 \quad 3462.00$

## Expanded Metcal range

ELFA has now expanded the Metcal range with the soldering system MX500. For further information about the MX-500-series see stock number 82-005-03 on www.elfa.se.

## MX-500S-21

Soldering station. Comprises a HFgenerator, soldering iron, stand, sponge and tip extractor.

MX-500TS-21
TALON soldering and repair system for SMD. Comprises a HFgenerator, desoldering tweezer iron, soldering pen, 2 stands, sponge and tip extractor.

## MX-500DS-21

Soldering/desoldering and repair system. Comprises a HFgenerator, desoldering handpiece, soldering pen, 2 stands, sponge and tip extractor.

## News on the bookshelf! <br> What's DVD?

A genuine reference work about DVD and similar technologies from all aspects. English text. 691 pages. Here you find descriptions of how to produce DVD titles for home use, education and professional use. Stock no.: 84-101-10. Price/each: 51.00

## PIC Robotics



A book containing a number of PIC-based building projects. Everything from programming to manufacture of mechanical parts is described. Among the projects you will find e.g. walking robots. All projects are explained step-by-step. English text. 274 pages. Stock no.: 84-166-53
Price/each: 32.70


## Communicate with Stamp

With Basic Stamp 2 as base 24 communication projects are thoroughly described step-by-step. On the enclosed CD you will find all software needed to complete the projects. English text. 361 pages. Stock no.: 84-101-28. Price/each: 41.40


News from IR
International I $\boldsymbol{i}$ R Rectifier

IGBT gate driver IR2184
Popular driver circuit, now for surface 目 mounting
IR2184S SO8. Stock no.: 71-006-88. Price/each: 4.29


| Heat resistant HEXFET Tj $=175{ }^{\circ} \mathrm{C}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| Automotive |  |  |  |
| VDSS=55 V | $\mathrm{ID}=51 \mathrm{~A}$ |  | 目 |
| RDS(on) $=13.5$ mohm |  |  |  |
| Type | Stock no. Pricer | /each |  |
| IRLZ44Z/TO220AB | 71-006-54 | 2.55 |  |
| IRLZ44ZS/D2PAK | 71-006-62 | 2.66 |  |

## IGBTs

Effective motor controls

| VCE $=600 \mathrm{~V}$ | IC=7.0 A |  |
| :--- | :--- | :--- |
| VCE(on)=1.8 V | VGE(th)=3.5-5.5 V |  |
| $\operatorname{td}($ on $)=28 \mathrm{~ns}$ |  |  |
| Type | Stock no. Price/each |  |
| IRGB6B60K/TO220 | $71-007-04$ | 2.34 |
| IRGS6B60K/D2PAK | $71-007-12$ | 1.93 |

## Process control regulator E5CN- series - New design

Process control regulator series with front dimensions $48 \times 48 \mathrm{~mm}$. Larger and clearer digits with 3 digit colours, expanded functions, improved properties, simpler programming and option modules for communications. Three types of regulation outputs: relay, logic and current (4-20 mA).

## Example:

## Temperature regulator

(Pt-100, thermoelement,
IR-sensor, mV)
Type: E5CN-R2MT-500. Reg. output: Relay
Stock no.: 76-679-00. Price/each: 249.00

## Example:

## Process regulator

(0-20 mA, 4-20 mA, 1-5 V,
$0-5 \mathrm{~V}, 0-10 \mathrm{~V})$
Type: E5CN-R2ML-500. Reg. output: Relay Stock no.: 76-679-34. Price/each: 249.00



## Charger 12/24 V

- Three-step charger for lead-acid batteries $12 \mathrm{~V} / 2.5 \mathrm{~A}, 24 \mathrm{~V} / 1.3 \mathrm{~A}$
- Suitable for motorcycle batteries and other lead-acid batteries with a capacity of 7-25 Ah
- Protected against short-circuit and wrong polarity

| Voltage/current | Stock no. | Price/each |
| :--- | :--- | ---: |
| $12 \mathrm{~V} / 2.5 \mathrm{~A}$ | $69-367-02$ | 34.80 |
| $24 \mathrm{~V} / 1.3 \mathrm{~A}$ | $69-367-10$ | 34.80 |



## 衫P\|-1EF

| Example: |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Type N15-TV (PCB)  Price/each   <br> Resistance Stock no. $1-$ $25-$ $200-$ <br> $5 \mathrm{k} \Omega$ $64-300-03$ 2.50 1.56 1.15 |  |  |  |  |  |

## 1-turn trimmer type N15

Potentiometer with small dimensions and $340^{\circ}$ turning angle (no mechanical stop) that is suitable as position sensor in cramped spaces. With a temperature range -40 to $+120^{\circ} \mathrm{C}$ it is also suitable for use in mobile applications. Lead-free. Versions for hole mounting and surface mounting kept in stock.


## Trimmer type 3386P-0T1

Trimmer potentiometer with fixed zero. Suitable e.g. for use in applications with op-amps. The additional outlet reduces the risk of drifting in the circuit.

| Example: <br> Exach | Price/each |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Resistance | Stock no. | $1-$ | $10-$ | $50-$ |
| $1 \mathrm{k} \Omega$ | $64-203-01$ | 4.92 | 4.31 | 3.45 |

## Precision resistors type RN73 size 0603

Precision resistors size 0603 for surface mounting. With a tolerance of $0.1 \%$ these resistors are used where exact values are needed. The resistors are lead-free and are stocked in the E6-series and values that are suitable for voltage distribution. Other values are offered against lead-time.

| Example: | Price/each |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Resistance | Stock no. | $1-$ | $10-$ | $100-$ | $5000-$ |
| $100 \Omega$ | $60-318-27$ | 0.53 | 0.45 | 0.22 | 0.11 |

## A full roll at the right price

Ceramic capacitors in the sizes 0402, 0603, 0805 and 1206 for surface mounting. Supplied bound on 12 mm tape $7^{\prime \prime}$ rolls in the E6-series, from 1 pF up to $22 \mu \mathrm{~F}$ with dielectric C0G (NP0), X7R and Y5V. Leadfree. Sold in unbroken rolls only.

Example size 0402:

| Capacitance | Dielectric/ <br> Voltage | Tolerance | Size/no. | Stock no. | Price per 10000- | $\begin{array}{r} 100 \text { pcs. } \\ 30000 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 pF | COG (NPO)/50 V | $\pm 5$ \% | 0402/10 | 65-532-34 | 0.50 | 0.32 |

Example size 0603:

| Dielectric/ |  |  |  | Price per $100 \mathrm{pcs}$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Capacitance | Voltage | Tolerance | Size/no. | Stock no. | $4000-$ | 12000 - |
| 1 pF | $\mathrm{COG}(\mathrm{NPO}) / 50 \mathrm{~V}$ | $\pm 5 \%$ | $0603 / 4000$ pcs. | $65-533-90$ | 0.55 | 0.39 |

Example size 0805:

| Capacitance | Dielectric/ Voltage | Tolerance | Size/no. | Stock no. | $\begin{aligned} & \text { Price } p \\ & 4000 \end{aligned}$ | $\begin{aligned} & 100 \text { pcs. } \\ & 12000- \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 pF | COG (NPO)/50 V | $\pm 5$ \% | 0805/4 000 pcs. | 65-537-21 | 0.82 | 0.59 |
| Example size 1206: |  |  |  |  |  |  |
| Capacitance | Dielectric/ <br> Voltage | Tolerance | Size/no. | Stock no. | $\begin{aligned} & \text { Price } p \\ & 4000- \end{aligned}$ | $\begin{aligned} & 100 \text { pcs. } \\ & 12000- \end{aligned}$ |
| 1 pF | COG (NPO)/50 V | $\pm 5 \%$ | 1206/4 000 pcs. | 65-540-75 | 2.20 | 1.54 |

