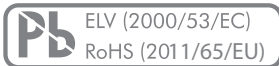


Product description

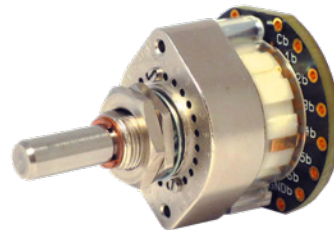
MAIN FEATURES

HIGH PERFORMANCE AUDIO SELECTOR SWITCHES AND SERIES TYPE ATTENUATORS

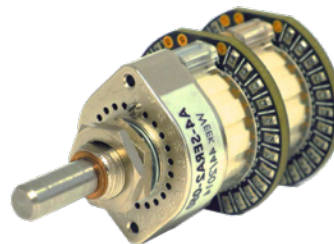
- › Exceptional sonic performance with precise switch feel
- › Low-bounce contact system



SERIES A4 single-wafer selector



SERIES A4 two-channel SMT series type attenuator



PRODUCT VARIETY SELECTOR SWITCHES

- 1 pole x 12 positions, 2 poles x 6 positions, 3 poles x 4 positions and 4 poles x 3 positions per wafer
- Non-shorting
- With selectable end stops
- Up to 8 wafers

PRODUCT VARIETY SERIES TYPE ATTENUATORS

- 24 positions, with selectable end stops
- Up to 8 channels
- Available with pre-populated thin-film SMT resistors or non-populated THT versions to be populated by the customer
- 600 ohm, 5 k, 10 k, 25 k, 100 k and 250 k ohm versions available as standard values
- Free Excel resistor calculator tool available

POSSIBLE CUSTOMIZATIONS

- Shafts, concentric construction

TYPICAL APPLICATIONS

- Mixing desks and outboard studio equipment
- Home audio and home theater

Product description

DESCRIPTION

The A4 audio switch series offers a comprehensive range of attenuators and selector switches. These high performance audio switches incorporate a PCB based switch contact system that is specifically designed to meet audiophile requirements for superb sonic performance.

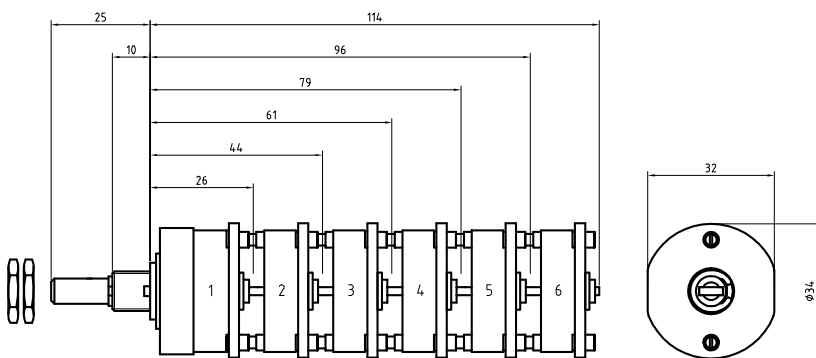
The selector switches feature switch torques from 1.5 to 15 Ncm and are available in up to 8 wafer versions. The switch functionality can be 1 pole x 12 positions, 2 poles x 6 positions, 3 pole x 4 positions or 4 pole x 3 positions per wafer, with non-shorting contacts. All switches feature selectable end stops.

The series type attenuators are available with up to 8 channels and offer feature switch torques from 1.5 to 15 Ncm. They are available either populated with low-noise, high precision SMT resistors (standard impedances are 600 ohm, 5 k, 10 k, 25 k, 50 k, 100 k or 250 k ohm), or non-populated THT versions which can be populated by the customer.

All switches feature Elma’s hallmark indexing feel for superior tactile feedback.

Dimensions, pin assignment and circuit diagram

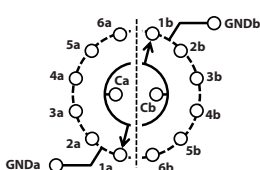
SWITCH DESIGN



PIN ASSIGNMENT AND CIRCUIT DIAGRAM

PIN ASSIGNMENT

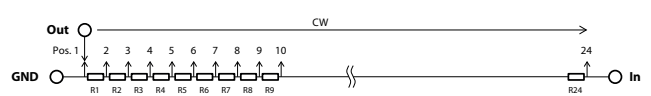
Example for the selector switch



GND, GND-surface on the printed circuit board. Printed circuit board with soldering eyelets.

PIN ASSIGNMENT AND CIRCUIT DIAGRAM

Example for the series type attenuator

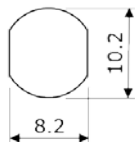


Dimensions in mm

Tolerances according to DIN ISO 2768-1 (m), unless otherwise specified

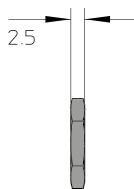
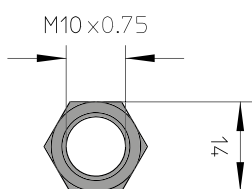
Dimensions, pin assignment and circuit diagram

FRONT PANEL CUT OUT

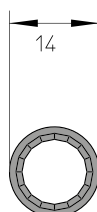


NUT

HEX NUT



LOCK WASHER



Ordering information

ORDERING CODE

| | | | | | | | |
|----|---|-----|---|---|---|-----|---|
| A4 | - | --- | - | - | - | --- | - |
|----|---|-----|---|---|---|-----|---|

TYPE

SLV Selector switch vertical
SER Series type attenuator

SWITCHING MODE

For selector switches only | leave blank for attenuators
N Non-shorting

SWITCHING TORQUE

A 1.5 Ncm (not recommended for > 2 wafers)
B 4 Ncm
C 8 Ncm
D 15 Ncm

FUNCTION (per wafer)

Selector switches
E.g. 206 2 poles, 6 positions (30° indexing)

Attenuators
THT THT, non-populated
0k6 600 ohm impedance
005 5 k ohm impedance
010 10 k ohm impedance
025 25 k ohm impedance
050 50 k ohm impedance
100 100 k ohm impedance
250 100 k ohm impedance

NUMBER OF WAFERS

X Number of wafers (max. 8, SER have one wafer per channel)

Dimensions in mm
Tolerances according to DIN ISO 2768-1 (m), unless otherwise specified

Ordering information

PACKAGING

Single piece packed, two nuts are included

ACCESSORIES AND SPARE PARTS

Spare nuts: 10 pieces / bag, part number 4124-41
 Stop screws: 10 pieces / bag, part number 4124-21

Specifications

GENERAL

| | |
|----------------------|--|
| Indexing resolution: | 12 positions (30° indexing 330° total switch travel) 24 positions (15° indexing 345° total switch travel) |
| Switching torque: | 1.5, 4, 8 or 15 Ncm ($\pm 30\%$ over temperature range and life) |
| Rotational life: | 25'000 cycles (over temperature range, at 120 RPM) |
| Contact system: | Low-bounce wiper with 3 micron hard gold plated PCB |
| SMT resistors: | Attenuators only, 0805 package, thin-film, $\pm 0.1\%$, TCR, ± 25 ppm / °C |
| Input impedance: | Attenuators only, 600 ohm, 5 k, 10 k, 25 k, 50 k, 100 k or 250 k ohm |
| Electrical load: | Selector switches only, max. 42 VDC, max. 500 mA (resistive load, over temperature range and life) |

DB ATTENUATION (SERIES TYPE ATTENUATORS)

| SWITCH POSITION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|
| Attenuation (dB) | Off | -62 | -53 | -46 | -41 | -37 | -34 | -32 | -30 | -28 | -26 | -24 | -22 | -20 | -18 | -16 | -14 | -12 | -10 | -8 | -6 | -4 | -2 | 0 |
| Step size (dB) | | 9 | 7 | 5 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

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