

## ***SAP = Stand Alone Potentiometer***

The Muses boards each contain a Muses 72320 or 72323 chip.

Allow me to say a few sentences about pricing:

Programming the many options was very time consuming. The boards are hand assembled and extensively tested. This takes time. So you get a flawless and high quality device.

In addition, electronic components have risen sharply in price. The Muses chip was not available at all for months. At the moment it is also only available in small quantities.

Thank you for your understanding.

### ***Muses 72320:***

SAP SE (Cinch) no Display - 110€

SAP SE 1,5Zoll Oled - 144€

SAP SE 2,4Zoll TFT IPS (Digole) - 153€ (stronger power supply included)

SAP XLR no Display - 159€

SAP XLR 1,5Zoll Oled - 190€

SAP XLR 2,4Zoll TFT IPS (Digole) - 199€ (stronger power supply included)

Additional Muses board for multi-channel SAP - 49€.

The board size is 35x35mm.

### ***Muses 72323:***

SAP SE (Cinch) no Display - 120€

SAP SE 1,5Zoll Oled - 154€

SAP SE 2,4Zoll TFT IPS (Digole) - 159€ (stronger power supply included)

SAP XLR no Display - 179€

SAP XLR 1,5Zoll Oled - 210€

SAP XLR 2,4Zoll TFT IPS (Digole) - 215€ (stronger power supply included)

Additional Muses board for multi-channel SAP - 59€.

The board size is 30x30mm.

### ***Available extensions:***

An "extended" power supply unit is available. This offers an improved noise/voltage ratio in "almost" battery quality. This has nothing to do with the stronger power supply mentioned above. The stronger power supply offers a significantly higher power in the digital 5V range, as the TFT display requires more current than the Oled.

The extra charge for this variant (improved noise/voltage ratio) + 12€.

Digital isolator. This completely separates digital and analogue voltages. The corresponding power supply generates an additional fourth voltage. + 12€

All sets contain the necessary parts to get the SAP up and running.

Simply connect the mains voltage, connect the input and output and enjoy the music.

Each set contains (at least):

- IR receiver
- Power supply standard
- Cable set for all connections
- Display (if included)
- microprocessor board
- one or two Muses boards (2 channels SE each)

The prices for shipping in Europe is 5€ with DHL and don't includes tracking and insurance. For 8€ is tacking and insurance included.

***Preamplifier module SE (only available with Muses 72320):***

[https://www.audio-perfect.de/pre\\_modul.html](https://www.audio-perfect.de/pre_modul.html)

The functionality includes all possibilities of the SAP.

In addition, 4 inputs can be selected via FB or selector switch. These are shown in the display.

***Preamplifier module*** with 2,6 inch, RGB TFT IPS display (alternatively 2,4 inch), power supply, cable set, completely assembled: 260€

***Standby mode***

The unit consumes 500 (350) mW in standby mode and can be woken up by remote control or by pressing a button: +12€

***Switchable 230V output (1600VA)***

A time delay (separate) for switching on and off can be set for the 230V output: +12€

***Preamplifier Module XLR: -CURRENTLY NOT AVAILABLE-***

The module corresponds to the SE module, but is only available with the Muses 72323.

It provides up to three XLR and two RCA inputs.

Price: 280€ (295€ incl. Standby mode)

Shipping within Europe is normally 7€. Please ask for shipping costs before making a purchase.

The sets do NOT include a remote control. All sets can be programmed to existing remote controls. All pots and also the pre-module do not contain any coupling capacitors in the signal path.

***Explanations of the differences between the two Muses Chips:***

There are no major differences. Since I work with both chips, I allow myself to pass judgement on them.

Sometimes I have the impression that the channel separation is slightly better with the Muses 72323.

However, I think this is a subjective perception, as the channel separation on both chips is -120dB.

The biggest change is probably that the volume can be changed in 0.25dB instead of 0.5dB steps.

That's a nice thing. Whether you need it in individual cases is another question. The control range at 0.5 dB is already 223 steps. I must point out that usually only a small part of the control range is used.

THD1 - 0.0005 % new -> 0.00024%

THD2 - 0.001% new -> 0.0007%

Even though the THD2 value (1VRMS / 10kHz) is clearly better, I doubt that you can hear the difference in the sound.

The output voltage of the new chip is 10.3 Vrms compared to 9.5Vrms.

There are still some changes in the addressing of the chip and the amplification function. But this is irrelevant for the stand-alone pots.