

PHYSICS BASEL
 ELECTRONIC LAB 2.17
 KLINGELBERGSTR. 82
 CH-4056 BASEL

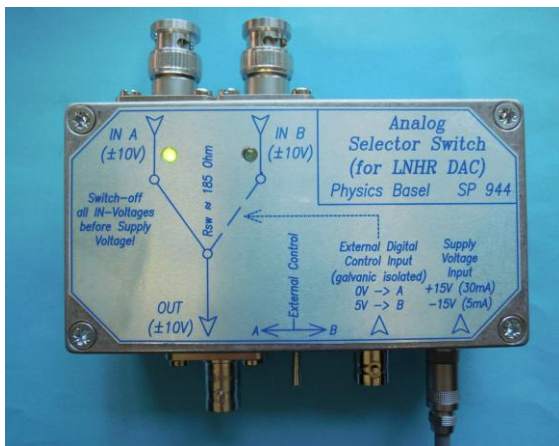
SWITZERLAND

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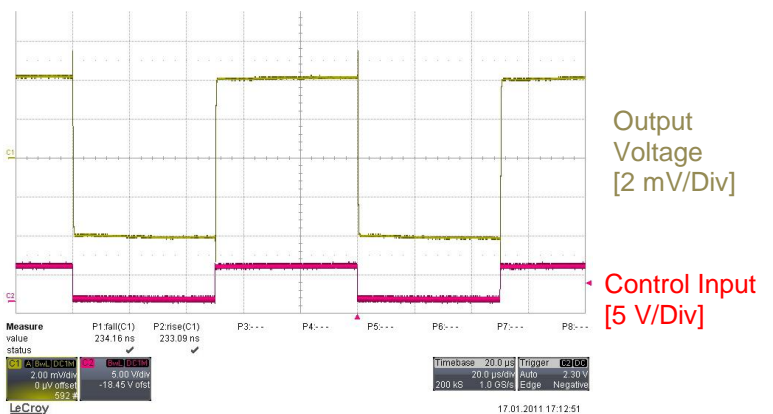
ANALOG SELECTOR SWITCH, SP 944 (FOR LNHR DAC, SP 927)

PHYSICS BASEL

DATASHEET VERSION 1.0 / JANUARY 2011



Switching ± 4 mV at a frequency of 10 kHz

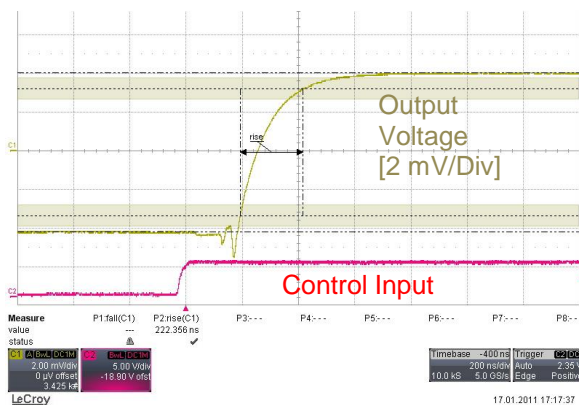


FEATURES

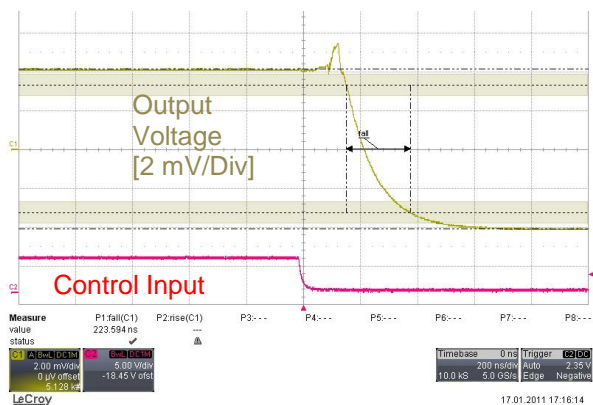
- Wide switching-frequency range: DC up to 100 kHz
- Low charge-injection during switching: < 1 pC
- Small glitch voltage during switching: typ. 3 mV peak-peak @ BW=20 MHz
- Fast fall- and rise-time (10% / 90%): typ. 240 ns
- Low noise: typ. 2 nV/sqrt(Hz) @ 1 kHz and < 30 nVrms (0.1 Hz...100 Hz)
- Wide linear input/output voltage range: ± 10 V
- Switch-resistance: typ. 185 Ohm (see also graph)
- Galvanic isolated and TTL-compatible *External Digital Control Input*
- Manual selection switch to override the *External Digital Control Input*
- LED indicator for actual switch position
- Fits direct onto the LNHR DAC (SP 927); see photo on the right



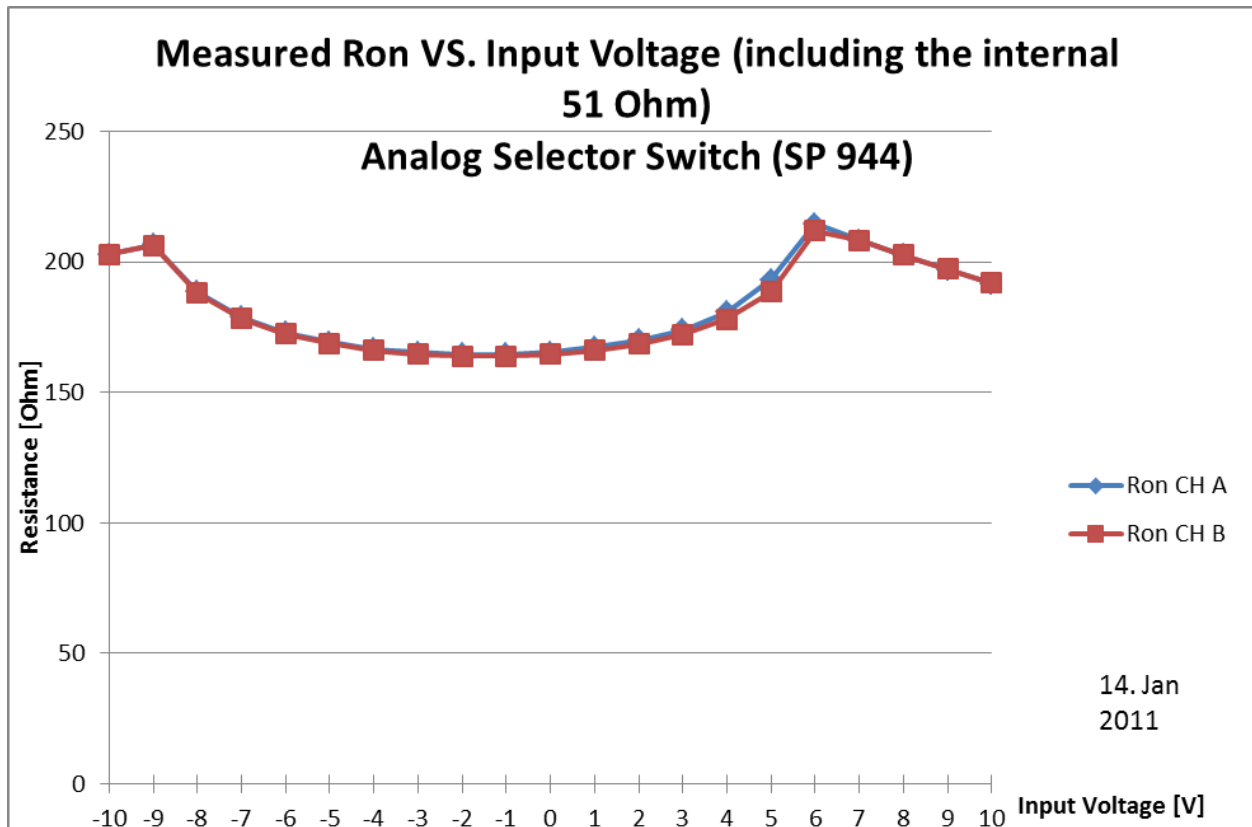
Rising-edge from -4 mV to +4 mV (BW=20MHz)



Falling-edge from +4 mV to -4 mV (BW=20MHz)



SWITCH-RESISTANCE VERSUS INPUT VOLTAGE



EXTERNAL DIGITAL CONTROL INPUT

- 0 V (or open): IN A → OUT / +5 V: IN B → OUT
- Current on *External Digital Control Input* @+5 V: typ. 10 mA
- Current on *External Digital Control Input* @+2.5 V: typ. 2.6 mA
- Threshold voltage at *External Digital Control Input*: typ. +2.5 V
- *External Digital Control Input* can internally be jumpered to 50 Ohm termination

SUPPLY VOLTAGE, CURRENT

- Connector: LEMO FFA.0S.304.CLAC44
- +15 V, 30 mA (PIN 1) / -15 V, 5 mA (PIN 2) / GND (PIN 4)
- Compatible to our ±15 V *Floating Supply* (SP 874)

REMARK

Switch-off or disconnect the input voltages (IN A and IN B) before switching off the ±15 V supply voltages of the device!