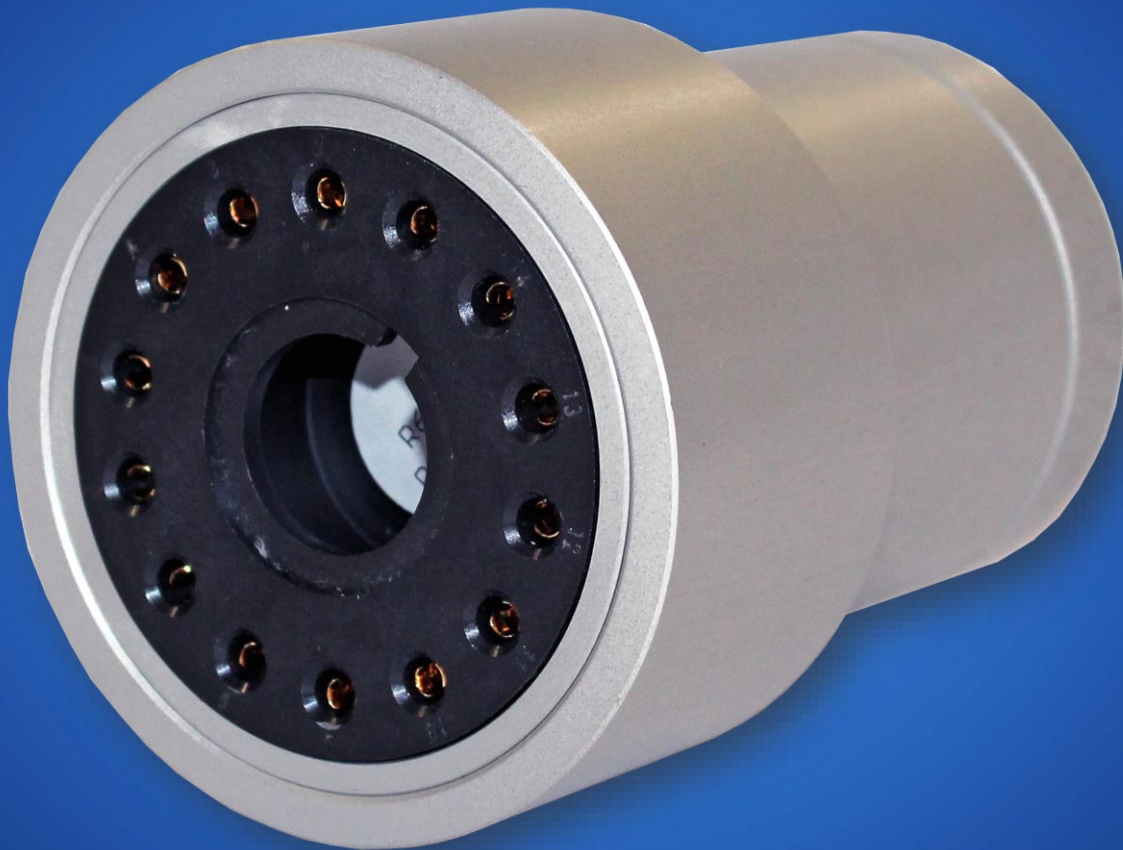




MCA for scintillation detectors MCABase

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DESCRIPTION

Together with a detector, the MCABase are complete spectrometer with integrated bias supply and preamplifier for PMT based detectors. It may be used for gamma-ray spectroscopy applications with NaI, CeBr, LaBr, Srl2 or similar scintillation detectors.

The MCABase modules are suitable for detectors with 14-pin (standard version) or 12-pin photomultiplier tubes like the Hamamatsu R6231, R1306 (Jedec B14) or R9420, 9102B, XP2060B (Jedec B12).

FEATURES

- Up to 4k channel resolution
- Various PMT socket variants upon request
- Very low power consumption of 0.4W
- Data acquisition done with 14bit ADC @10MS/S
- Bias supply 0V to 1000V, software controlled
- Throughput >100.000 cps
- Power over Ethernet, USB or wall adapter (depends on version)
- Fixed cable versions upon request available
- Ethernet, USB or RS485 interface versions
- Integrated temperature sensor
- Solid anodized aluminum body

Parameter	Value
Number of maximal channels	4096
Throughput into memory (input rate 150kcps, 0.2µs shaping time)	> 100.000cps
Operation Modes	PHA, MCS, Sample Mode, Oscilloscope Mode, Firmware Repeat Mode
Differential non-linearity	<1% (for 2k, @ 1µs shaping time)
Shaping Time	0.1µs to 2µs, step 0.1µs
Flat Top Time	0µs to 15µs, step 0.1µs
Fine Gain Adjustment	0.5 to 6.5, step 0.0001
Base Line Restorer	BLR with fixed averaging
Pole Zero Adjustment	Decay time down to 40µs can be compensated
Peak Stabilization Modes	standard mode
Power supply	via USB PC-Port, ≤500mA
Power consumption (running, without detector, HV off)	0.4W
Operation Temperature Range	0°C – 50°C
Humidity	≤90%, non-condensing