ORTEC

ORTEC 584

Constant-fraction discriminator

Timing discriminator for semiconductor and scintillation detectors, with constant-fraction, leading-edge and slow-rise-time rejection modes.



Input amplitude range	Threshold range	Input impedance
0…−5 V [1]	**−5 mV…−1 V** [1]	**50 Ω** [1]

Specifications

Input amplitude range	0…−5 V	[1]
Threshold range	−5 mV…−1 V	[1]
Input impedance	50 Ω	[1]
Minimum pulse-pair resolution	≤20 ns	[1]
Blocking output width	Adjustable from ≤10 to ≥1000 ns	[1]
Nominal constant fraction	0.2 (internally set; can be changed on request)	[1]
Nominal propagation delay	25 ns with approximately 2 ns external CF delay	[1]
Time walk	≤±100 ps, −20 mV…−2 V; 2 ns external CF delay, ≤1 ns rise time, 10 ns width	[1]

Sources

[1] **584 Constant-Fraction Discriminator (A4)**
RTEC (AMETEK) · datasheet · p. 1, Specifications – Performance; p. 1, Performance; p. 1, Controls (Timing Mode Switch) · checked 2026-10-16
https://web.archive.org/web/20251016025606/https://www.ortec-online.com/-/media/ametekortec/brochures/5/584-...

Every value is taken from the manufacturer’s own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer’s published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.