

417 Detection Electronics Mainframe Brochure



Overview

The 417 Detection Electronics Mainframe represents a customisable, all-in-one optical detection system designed for optimal operation and automation of high-performance light measurement systems.

Serving as housing, power supply and USB 2.0 communications hub for 400 series modules, the 417 is at the heart of our modular approach to signal recovery.

Core benefits

- ✓ Versatile self-contained system, tailored to application
- ✓ Wide selection of high-performance electronic units
- ✓ Easy-to-use via front panel or USB 2.0 interface
- ✓ Modular, upgradable design to expand and reconfigure as requirements adapt

Features

- ◆ 417 mainframe offers eight single width modules
- ◆ Optional reduced size 417T
- ◆ Provides power, housing and shielding for the modular 400 detection electronic series
- ◆ Includes an LCD display
- ◆ Communication via I2C in series from USB board.
- ◆ Available as stand-alone unit or with a rack mounting kit (standard 19" width)



417 Detection Electronics Mainframe Specifications

Electrical	Model	417 Detection Electronics Mainframe
	Mains Input Voltage	220/240V or 110V AC
	Mains Frequency	50/60 Hz
	Fuse Rating	315mA anti-surge (220 V)/ 630mA anti-surge (110 V)
Interface, Mechanical	Interface	USB 2.0/ I2C between modules
	Dimensions	417: 450L x 310W x 130H (mm)
		417T: 350L x 310W x 130H (mm)
	Mounting	Stand-alone format and 19" rack mounting kit available

Configuration

	Module	Function
Module Range	Double width 487	Programmable DC amplifier with integrating ADC used as main detection electronic in DC systems using current generating photodetectors
	Double width 497	Programmable AC & DC amplifier with integrating ADC used as main detection electronic in DC systems and pre-amplifier in AC systems using current generating photodetectors
	Single width 477	Programmable AC pre-amplifier for use with current generating photodetectors in chopped light systems
	Single width 218M	Optical Chopper with modular control electronics
	Double width 496	DSP lock-in amplifier for use in chopped light systems
	Single width 474	Fixed gain voltage amplifier for transformer used in PVE300 chopped light systems
	Single width 415/ 415D	High voltage power supply for use with photomultipliers, lead sulphide and lead selenide detectors
	Single width 275	Ultra-Low Noise Pre-amplifier for use with mercury cadmium telluride detectors
	Double width CPS1M / 2CPS1M	Single/Dual Detector Peltier cooler controller for solid state detectors
	Double width CPS20M	Peltier cooler controller for side window PMT
	Single width DH_PY_PSU	Power supply for DH-Py detector
	Options	417 Detection Electronics Mainframe
417T Subrack		Compact 417 (5-unit width)

Ordering Information

S400_417	417 detection electronics mainframe (8 module capacity)
S400_417T	417T detection electronics mainframe (5 module capacity)