

Diode array detectors

AZURA Detector DAD 2.1L & MWD 2.1L

The AZURA DAD 2.1L is a highly competitive diode array detector which combines high performance with easy handling at an affordable price.

A wide range of easily exchangeable cartridge flow cells make this device the right choice for fast, standard analytical, semi-preparative and preparative separations with bio-inert or stainless steel wetted parts.

State-of-the-art total reflection flow cells (LightGuide technology) are available for this device providing maximum light throughput (due to total internal reflection) with minimal peak dispersion (due to the small cell volume) to guarantee an optimized S/N ratio.

An optional fiber optics adapter offers the possibility to separate the flow cell spatially from the device and thus provides enhanced security for hazardous, explosive or toxic work processes, as well as protecting the device from leakages at high flow rates.

The newly developed optical unit and intelligent temperature management ensure for maximum sensitivity combined with minimal baseline drift. Furthermore, easy frontal access and improved safety features enable effortless lamp replacement. This eases maintenance and guarantees short downtimes. The DAD 2.1L comes installed with a deuterium lamp which covers a wavelength range from 190 to 700 nm. This detector can be controlled with OpenLab® EZChrom and ClarityChrom® software, as well as from an optional touch display or Mobile Control (stand-alone operation), via LAN or through analog input/output, allowing it to be integrated into almost any LC system.



Detection

Detector type	DAD 2.1L, Diode array detector / MWD 2.1L, Multiwavelength detector
Number of diodes	256
Detection channels	8 (Digital) 4 (Analog)
Light source	Deuterium (D2) lamp with integrated GLP chip
Wavelength range	190 - 700 nm
Spectral bandwidth	< 8 nm at H α line (FWHM) Note: digital bandwidth 1 - 32 nm
Wavelength accuracy	\pm 0.5 nm
Wavelength precision	\pm 0.1 nm
Wavelength verification	Internal holmium filter and deuterium lines
Noise	\pm 5 μ AU at 254 nm
Drift	300 μ AU/h at 254 nm
Linearity	> 1.6 AU at 274 nm
Time constants	0.0 / 0.1 / 0.2 / 0.5 / 1.0 / 2.0 / 5.0 / 10.0 s
Flow cell	not included (see Accessories / Spare parts)
Integration time	automatic (5-1000 ms)

Communication

Maximum data rate	100 Hz (LAN) 12.5 Hz (Analog)
Inputs	Error (IN), Start (IN), Autozero
Outputs	Events 1 - 2, Error (OUT), + 5 V, Valve + 24 V, Valve (OUT)
Analog outputs	4 x 0 - 5 V, 16 bit
Control	digital: LAN-DHCP, remote connector manual: Control Unit (optional), or Mobile Control (optional)
Programming	Wake up

Technical parameters

GLP	Detailed report including lamp recognition, operating hours, lamp operating hours, number of lamp ignitions
Display	Mobile Control or Control Unit (optional)
Ambient conditions	Temperature range: 4 - 40 °C, 39.2 - 104 °F Humidity: below 90 % noncondensing

General

Power supply	100 – 240 V, 50 – 60 Hz, 75 W
Dimensions	361 x 158 x 523 mm (W x H x D)
Weight	12.8 kg
Leak sensor	Yes

Ordering details:

ADC01	AZURA Detector DAD 2.1L, Diode array detector 190-700 nm
ADB01	AZURA Detector MWD 2.1L, Multiwavelength detector 190-700 nm, 8 channel
AMC19	KNAUER LightGuide flow cell cartridge, 10 mm path length, 1/16", 2 μ l volume, biocompatible,
AMD59	KNAUER LightGuide flow cell cartridge, 50 mm path length, 1/16", 6 μ l volume, biocompatible
AMC38	KNAUER flow cell cartridge, 10 mm path length, 1/16", 10 μ l volume, stainless steel
AMB18	KNAUER flow cell cartridge, 3 mm path length, 1/16", 2 μ l volume, stainless steel
A5193	Deuterium lamp for AZURA UVD 2.1S, UVD 2.1L and Smartline 2520 detectors
AMKX8	Fiber optics adapter for DAD 2.1L
AMLX8	Test cell for DAD 2.1L