JENWAY

Fluorimeters

Fluorimetry has applications in water and environmental testing, food analysis and life science research, amongst others. The detection of fluorescence offers one of the most sensitive measurements in the laboratory with concentrations of less than 1ng/ml being routinely detected.

Fluorimeters

Feature	62 Series Fluorimeter
Wavelength selection	Intelligent Filter Modules (IFM)
Light source	Pulsed Xenon lamp with press-to-read operation
Expected life of lamp	No replacement required in normal operation
Raw fluorescence readings	Yes
Concentration standard curve	Blank + up to 6 standards
Kinetics, timed option	In both raw fluorescence and concentration modes
Kinetics options	1 reading every 3 to 999 seconds
No. methods stored	20
No. results stored	100 per method
GLP	Method lock with password access
	Time and date stamped results
	Last calibration date and time stored
	Calibration interval set
	Calibration due reminder
	User ID
Outputs	RS232
PC software	Compatible with DataWay (option)
Sample handling	10mm square cuvette holder (standard)
	Heated sample holder (option)
	Sipper pump (option)
Power supply	90 to 230V universal mains adapter
	12V DC input
Size (w x d x h)	365 x 272 x 160mm
Weight	6kg

6270 with Sipper Pump

Technical Specification

	6270	6280	6285
Wavelength range	190 to 1100nm	190 to 650nm	190 to 850nm
Sensitivity*	1µg /ml	<1ng/ml	<1ng/ml
Dynamic range*	$5.2x10^4$	$5.2x10^6$	$5.2x10^6$
Detector	Photodiode	PMT#	PMT#

* Using quinine sulphate
# Photomultiplier tube

6270

62 Series Fluorimeters

- High quality optics: pulsed xenon lamp and Total Energy Transfer (TET)
- Intelligent Filter Modules ensure correct filters are fitted for selected method
- Intuitive programming allows fast program creation
- Raw fluorescence or concentration values options
- Standard curve and kinetic functions
- Heated sample holder and sipper pump accessories
- Compatible with DataWay PC software

Three models are available to cover a wide range of applications. The 6280 model is ideal for the most sensitive determinations with emission wavelengths up to 650nm. When higher emission wavelengths are required the 6285 with its red-enhanced detector is the unit of choice. For less sensitive applications and a broader wavelength range up to 1100nm the low cost 6270 unit is more suitable.

With press-to-read operation and Total Energy Transfer (TET) technology the output of the high-energy xenon lamp is maximised and its expected life extended so that it should never need replacing within the normal lifetime of the unit. The high quality optics are complemented by the Intelligent Filter Modules (IFM) that are identified by the unit, generating error messages should the wrong filters be fitted or their positions be incorrect.

Each model offers intuitive operation with a user interface based on logical menus that can be navigated from the simple keypad. Up to 20 methods can be created without restriction and saved for future use. They can also be locked against accidental change by password entry. The permanent time and date tag on every stored reading supports Good Laboratory Practice, while calibration reminders and operator identity can also be entered to support conformance and traceability of results.

All models are powered from an external, universal mains adapter suitable for use from 90V to 230V, while the 12V DC input enables use in vehicles or from suitable battery packs.

Ordering Information

Part Code	Description
627 001	6270 fluorimeter supplied with 100 disposable cuvettes and mains adapter for use on 90 to 230V supply with UK, Euro and US mains leads
628 001	6280 fluorimeter supplied with 100 disposable cuvettes and mains adapter for use on 90 to 230V supply with UK, Euro and US mains leads
628 501	6285 fluorimeter supplied with 100 disposable cuvettes and mains adapter for use on 90 to 230V supply with UK, Euro and US mains leads

Note: Excitation and emission filters are not included and should be purchased as separate items. Please refer to the filter section.

Fluorimeter Accessories

Sipper Pump

The programmable peristaltic sipper pump can be adjusted by the operator to inject a repeatable volume of sample or standard into the chamber of a flow-through cuvette. Other options are:

- Add an air gap to separate samples
- Wash cycle
- Move sample to waste container or return to original vessel
- Pump sample continuously for monitoring a bulk or flowing sample

Technical Specification

Continuous aspiration mode	Flow rate dependant on tubing bore: 12ml/min with supplied tubing
Timed aspiration mode	Sample/air gap/wash
Sample volume	75µl to 9.5ml
Segment run time	Up to 48 seconds
Size (w x d x h)	205 x 190 x 160mm
Weight	1.5kg

Sipper Pump

Heated Cell System

The electrically heated cell holder with its digital control unit ensures samples are always at the same temperature. This can be very important as fluorescence is inversely proportional to temperature, so care must be taken if comparing samples at different ambient temperatures. Temperature can also affect other sample properties, for example the rate of enzymatic reactions.

Technical Information

Temperature range	Ambient +2°C to 60°C
Resolution	0.1°C
Regulation	±0.1°C
Accuracy	±0.5°C
Temperature control	PID
Size (w x d x h)	205 x 165 x 85mm
Weight	0.9kg for controller
	0.4kg for heated block

Heated Cell Block Controller

Ordering Information

Part Code	Description
632 001	Sipper pump, supplied with inlet and outlet tubing (230V/50Hz)
628 200	Heated cell system comprising heated cell holder (628 202), controller (633 004) and connection leads (100 to 240V/ 50/60Hz)

Fluorimeter carry case

Fluorimeter Accessories

PC Software

DataWay PC software allows unlimited storage of programs, results and graphs. It has powerful graphing functions that allow overlays of data for comparison of results. Alternatively data can be exported to other analysis programs such as Excel™.

Ordering Information

Part Code	Description
050 501	DataWay software on a CD-ROM, includes spectrophotometer/fluorimeter interface cable (013 210) and electrochemistry interface cable (013 203)
037 551	RS232 to USB convertor for connection to PCs without serial ports

Field Analysis

When portability or field analysis is important any 62 fluorimeter can be accommodated in the tough carry case.

All the Jenway fluorimeters can be powered from any mains supply (100 to 230V) or a 12V DC supply. When being used in a vehicle an optional cable with a vehicle auxiliary socket (cigarette lighter) can be used. A number of independent battery packs are also available.

Cuvettes

Ordering Information

Part Code	Description
035 120	100µl quartz cell (3 windows)
035 121	500µl glass cell (minimum 320nm, 4 windows with PTFE lid)
035 122	500µl quartz cell (minimum 200nm, 4 windows with PTFE lid)
060 253	10x10mm macro glass cell (UV, 4 windows)
060 254	10x10mm macro glass cell (visible, 4 windows)
060 255	Semi-micro flow cell (UV, 3 windows)
060 247	Pack of 100 (10mm) macro plastic (3ml) cuvettes (visible, 4 windows)

Printers

Ordering Information

Part Code	Description
037 701	40 column serial printer supplied with paper, protective sleeve, serial lead, power supply and UK, EU and US power leads
037 702	Roll of thermal paper

Miscellaneous

Ordering Information

Part Code	Description
033 290	Fluorimeter carry case
021 057	12V connection lead
630 028	Dust cover

Fluorimeter Accessories

Fluorimeter Filters

There are 3 types of filter for the Jenway fluorimeters. The bandpass filters are ideal as excitation filters as they allow only the light between the specified wavelengths through to the sample. For example, UG1 allows all the light between 320 and 380nm through and excludes the light below 320nm and above 380nm. The cut-off and interference filters are normally used as the emission filters where a much narrower range of wavelengths is required. The cut-off filters block all light below the specified wavelength and the interference filters allow the specified wavelength and light +5nm of this through to the sample.

Ordering Information

Part Code	Description
627 126	UG1, 320 to 380nm bandpass filter
627 124	BG28, 380 to 500nm bandpass filter
627 125	VG9, 480 to 580nm bandpass filter
627 131	Glass, 305nm cut-off filter
627 130	Kodak 2B, 395nm cut-off filter
627 129	Kodak 8, 475nm cut-off filter
627 128	Ilford 201, 545nm cut-off filter
627 127	Kodak 29, 610nm cut-off filter

Interference Filters

Ordering Information

Part Code	Wavelength	Part Code	Wavelength
627 141	250nm	627 167	460nm
627 132	254nm	627 136	470nm
627 142	260nm	627 168	480nm
627 143	265nm	627 169	490nm
627 144	270nm	627 170	500nm
627 145	280nm	627 171	510nm
627 146	290nm	627 137	515nm
627 147	295nm	627 172	520nm
627 148	300nm	627 173	530nm
627 149	305nm	627 174	532nm
627 150	310nm	627 175	540nm
627 151	313nm	627 176	546nm
627 152	320nm	627 177	550nm
627 153	326nm	627 178	560nm
627 154	330nm	627 179	570nm
627 155	334nm	627 180	577nm
627 156	337nm	627 181	580nm
627 133	340nm	627 182	590nm
627 140	350nm	627 183	600nm
627 157	360nm	627 184	610nm
627 138	365nm	627 185	620nm
627 158	370nm	627 186	630nm
627 134	380nm	627 187	633nm
627 159	390nm	627 188	640nm
627 135	400nm	627 189	650nm
627 160	405nm	627 190	656nm
627 161	410nm	627 191	660nm
627 162	415nm	627 192	670nm
627 163	420nm	627 193	680nm
627 164	430nm	627 194	690nm
627 165	436nm	627 195	694nm
627 166	440nm	627 196	700nm
627 139	450nm		