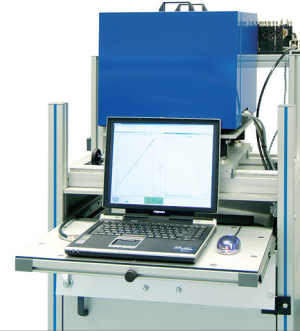


Q-MACS Process plus



technical specification

The Q-MACS Process plus is an extended measurement and monitoring device for industrial processes. It bases on the Q-MACS Basic and features a three channel setup to improve the signal-to-noise ratio and to achieve long-time stability. The system uses infrared absorption spectroscopy to measure absolute molecular concentrations and comes additionally either with a Herriot cell or White cell.

head	description	three path infrared spectrometer with IR-light source and on board long path cell
	sensitivity	up to ppt range [1]
	time resolution	up to millisecond
	size	710 mm x 440 mm x 1390 mm
	weight	155 kg
components	parts	optical board laptop with external PCI-card box Herriot cell or White cell vacuum pump system water cooling system
parameter	power	230 V, max. 2 A (switch-on current 6 A)
	working range	+5 °C to +40 °C
QCL	tuning method	inter pulse mode (laser sweep mode) intra pulse mode (single pulse mode)
	pulse width	8 ns* ... 256 ns** * depends on the QCL and QCL-voltage used ** longer pulses on request
	pulse frequency	up to 1 MHz
	QCL temperature range	-35 °C to +40 °C
	QCL	tested and installed

[1] depends on species, temperature and pressure