

Sensor [MPA7 / SMPA7]		
Sensor Type	Analyzer [Sensor Type : 7-2/65]	Analyzer [Sensor Type : 5-2/100]
Maximum Output rising pressure (N2)	0.5Pa	0.2Pa
Maximum Operating Pressure (N2)	0.9Pa	0.6Pa
Minimum Detectable Partial Pressure (N2)	5×10 ⁻⁶ Pa (70eV)	5×10 ⁻⁶ Pa (70eV)
Resolution (FWHM: N2)	1.2±0.3 AMU	1.0±0.3 AMU
Maximum Bake out Temperature (SG removed)	350 degC	
Maximum Operating Temperature (SG installed)	150 degC	
Mounting Flange	MPA : [C] CF34 (ICF 34) SMPA : [C] CF34 (ICF 34), [K] ISO-KF16 (NW 16)	
Weight	MPA : CF34 Flange 50 g SMPA : ISO-KF16 Flange 50 g SMPA : CF34 Flange 70 g	
Filament	Y ₂ O ₃ /Ir 2pcs	
RoHS	Compliant	
*Micropole Analyzer has 2 types (MPA/SMPA). SMPA is protected by a mesh on the vacuum fitting, designed to extend the lifetime of sensor in harsh environment such as plasma processes.		

Spectrum Generator [QL-SG01-065-1A] [QL-SG01-100-1A]		
Spectrum Generator Type	QL-SG01-065-1A	QL-SG01-100-1A
Mass Range	2-65 AMU	2-100 AMU
Mass Filter Type	Quadrupole	
Detector	Faraday cup	
Measurement Scan Speed (Data Update at Baseline Scan)	1 sec/scan for 1 gas (10 sec/scan for 10 gases)	
Ionization Voltage	43eV or 70eV selectable	
Operating Temperature	15 - 45 degC	
Operating Humidity	30 - 80 %RH (not condensing)	
Weight (with Special Clamp for SMPA type sensor)	575 g	
Dimension	W150 x H62 x D47 (mm)	
Communication and Baud rate	RS485, 9.6K / 19.2K / 38.4 Kbps	
Power Input	DC 24V +/-5%, 100mVpp, 70VA	
Connector type (Power supply)	Round Type Connector: PRC03-23A10-4M	
Monitor / Control	Monitor controller (QL-MC01-1A) or Application Software (QL-MS01)	
CE Marking	EMC directive: EN61326-2-3	
RoHS	Compliant	

Monitor Controller [QL-MC01-1A]		
Model	QL-MC01-1A	
Display	3.5" color LCD	
Main body buffer memory capacity	4MB *1	
Expanded memory	Special CF card MCF10P-512MS(recommended product) *2	
QL-SG01 control	Only one unit of QL-SG01 Series can be controlled.	
Working temperature range	15-45°C *3	
Working humidity range	30 to 80%RH (non condensing)	
Connectors	External input/output connector	DX10-28S
	DC connector	PRC03-23A10-4M
	SG connector	PRC03-23A10-4F
	Ethernet connector	P02-B01-P1A9
Input	External control	DC 0-24V 1ch (OFF: 1.5 V or less ON: 12 to 24 V)
	Analog output	Output range: 0 to 10 VDC 5gases Load resistance: 10 kΩ or more Accuracy: ±100 mV
Output	Logic output	Open collector system 5 gases (upper/lower limit alarm)
		Operating voltage: 12 to 24 V Rated current: 50 mA Residual voltage specification: 2.0 V or less
Weight	920g	
Supply voltage	DC 24V ±5%	
Power consumption	70VA MAX *4	
Ripple	100mVpp	
PC interface	Ethernet 100Base-TX	
System wiring	Total length of cables connecting PS, MC and SG must be 10.2 m or less.	
Max. number of connectable units	Up to 8 units can be connected to one PC.	
CE marking	EMC directive: EN61326-1	
FCC regulation	FCC Part15 classA	
Conformity to RoHS directive	Conforming	

*1: When the power is off data is not backed up.

*2: Please understand that we are not liable for any damage or trouble caused by using other manufactures CF card.

When the product of other manufacturers is used, 512MB or less is recommended.

*3: When QL-MC01-1A and QL-SG01 series are combined use them at a temperature lower by 5°C than the upper limit of the operating temperature of QL-SG01 series.

LCD is placed in the form of upward, please adjust the working temperature to 35°C or less and use it.

*4: It is power consumption for the combination of QL-MC01-1A with QL-SG01 series.

Power Supply Unit [QL-PS01-1A]		Special Cables	
Input	AC : 100~240 V, 50/60Hz	(QL-CR01-※M-1A) between SG and MC	Length ※ : 0.19, 3, 5, 10 m
Output	DC : 24V	(QL-CR01-※M-1A) between SG and Power supply	Length ※ : 0.19, 3, 5, 10 m
Operating Temperature	15 - 45 degC	(QL-CR01-※M-1A) between MC and Power supply	Length ※ : 0.19, 3, 5, 10 m
Operating Humidity	30 - 80 %RH (not condensing)	(SC-EBR) between SG and PC (RJ45 connector)	Length : 3, 10 m
Dimension	W70 x H92 x D130 (mm)		
Weight	700 g		

Special Clamps	
(QL-LC) : CF34 (ICF34) flange for MPA sensor	Weight : 140 g
(QL-LS) : For SMPA sensor	Weight : 190 g

Software [QL-MS01]	
Software (for PC)	"MICROPOLE SCANNER" QL-MS01
OS	Windows® XP, Vista (.NET Framework Ver.2 or higher is required)
Interface	RS485 (QL-SG01) / Ether Net (QL-MC01)
Simultaneously controllable systems (by PC)	Maximum 8 units from a single PC
Display	Bar, Trend, Analog, 3D (Analog+Time scale)
Measurement mode	Full, Selected, Single
Display unit	Pa, Torr, mBar, Ampere
Display scale	Linear, Logarithmic
Data save	It can be converted to CSV file format.
Recommendation of PC	Pentium 1.6GHz or higher, RAM : 1GB or more, HDD : 2GB or more