GASTEC

Automatic Air Sampling Pump

GSP-501FT

Compact, lightweight, and reliable automatic air sampling pump for GASTEC detector tubes and sorbent tubes.

Quiet operation with low noise

Large screen displaying suction flow rate, sampling time, and integrated volume simultaneously

Automatic Air Sampling Pump

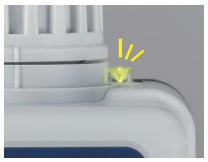
GSP-501FT

- Flow range 50-500mL/min
- 10-500mL/min is available when volume mode (When set to 10-49 mL/min, the intermittent operation is performed at 50mL/min)
- Fixed flow function automatically regulates load changes
- Flow rate, sampling time, and integrated volume are displayed on the same screen simultaneously
- Automatic start enables sampling to begin after a preset time
- 5 sampling settings can be saved with the program mode
- Real-time flow volume and integrated flow volume are automatically corrected to the values for 20ºC(68ºF) or 25ºC(77ºF)

Displays selected operating mode

Easy-to-read, large LCD displays flow rate, sampling time, and integrated volume simultaneously

Two LED lamps blink during the sampling operation. The operating status is visible from a distance.



Side

Set two AA alkaline batteries or AA nickel-metal hydride batteries.

• Specifications

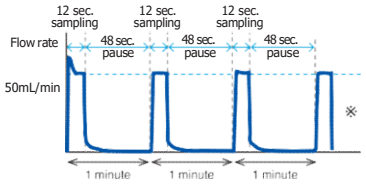
Name / Model	Automatic Air Sampling Pump GSP-501FT
Sampling mode	Timer Mode: Air pump automatically stops at set time Settable time: 1 minute to 30 hours Volume Mode: Air pump automatically stops at set volume Settable integrated volume: 0.010 to 900L
Settable instantaneous flow rate	Timer Mode:50-500mL/min Volume Mode:10-500mL/min (When set to 10–49 mL/min, the intermittent operation is performed at 50mL/min)
Constant flow rate operating range	10-49mL/min:0.0-5.0kPa　300mL/min:0.0-23.0kPa 50mL/min:0.0-40.0kPa　400mL/min:0.0-16.0kPa 100mL/min:0.0-37.0kPa　500mL/min:0.0-10.0kPa 200mL/min:0.0-30.0kPa
Display	Liquid crystal digital display (with backlight), Display range: 0-600mL/min
Structure and function	Constant flow rate function (built-in set flow rate holding circuit), Autostart function (autostart after set standby time in standby mode), Diaphragm type air pump, Program Mode (5 sampling settings)
Accuracy of instantaneous flow measurement	Instantaneous flow rate: 50-500 mL/min ±5%
Accuracy of integrated flow Measurement	[When set flow rate: 50 to 500mL/min] ±5%. <Volume Mode only> [When set flow rate: 10 to 49mL/min] ±(2.5×sampling time [min]) mL.
Operating temperature range	0-40℃
Operating humidity range	10 to 90% RH (non-condensing)
Power supply	2 AA alkaline batteries (standard accessories, commercially available) 2 AA nickel-metal hydride batteries (commercially available)
Continuous operation time	2 AA alkaline batteries (Standard Accessories): 20 hours (Set flow rate: 200 mL/min, suction pressure: 2kPa or less, ambient temperature: 25°C)
Dimensions and weight	80(W)×40(D)×126(H) mm 280g (including batteries)
Standard accessories	2 AA alkaline batteries, detector tube adaptor, tube tip holder, dust filter (5pcs), instruction manual, warranty certificate, inspection certificate
Directives and regulations	EU Directive:2014/30/EU(EMC), 2011/65/EU,(EU)2015/863(RoHS)
	UK Regulation:2016 No. 1091(EMC),2012 No.3032(RoHS)
EMC harmonised standards	EU:EN 61326-1:2013
	UK:BS EN 61326-1:2013
RoHS designated standards	EU:EN IEC63000:2018
	UK:BS EN IEC63000:2018

Intermittent Operation

When the instantaneous flow rate is set to 10 - 49mL/min in the Volume Mode,the intermittent operation is performed by sampling at an instantaneous flow rate of 50mL/min.

Example of Intermittent Operation

When the Volume Mode is selected and the flow rate is set to 10 mL/min and the set volume is 0.1L,
after the sampling is started, the pump will pause for about 48 seconds after about 12 seconds of sampling
at a flow rate of 50mL/min (samples until the sampled volume per minute reaches 10mL, then pauses).
Sampling at a flow rate of 50 mL/min for about 12 seconds and pausing for about 48 seconds are repeated
until the set volume of 0.1 L is reached, taking about 10 minutes.



(Example)
Volume Mode
Flow rate: 10mL/min
Integrated volume:0.1L

※Repeat until the sample volume reaches 0.1L

＊ If there is a sudden change in the gas concentration or if sampling is performed for a short period of time, the error of the sampling result may be large.

Options

Gas sampling pump tripod stand GSP-TRIPOD

Mount GSP-501FT to use at the desired height.

Belt loop pump holder GSP500FT-30

Case for personal exposure measurement

Rubber caps DTP-2-20

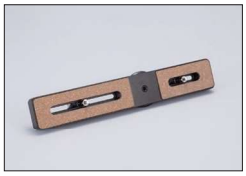
Reusable rubber caps can be attached to the broken tip of the detector tubes as an extra precautionary safety measure. One (1) package contains 20 caps.

Protective cover for detector tube GSP300-14

Enables the detector tube to be securely set up for measuring and helps to avoid possible injury to the user as well as damage to the detector tube itself.

Sampling tube holder 730

Tube holder for personal exposure measurement



Tripod mounting plate PLATE 2

2 pumps can be mounted on the same tripod

Example

Sorbent tubes

Sorbent tubes are glass tubes filled with sorption agents such as activated charcoal or silica-gel,
and are used to adsorb toxic gases in various environments.
Both ends of the tube are broken off and connected to a sampling pump for sample collection.
The adsorbate is then extracted using a solvent and analyzed using gas chromatography.

Product name/code		Layer	Filling quantity	Dimensions (mm)	Tubes/box	Shelf life (months)
Activated charcoal tube	251S-20	2	100／50	5.6×100	20	60
	251S2-20	1	150	5.6×100	20	60
Activated charcoal tube (Bead-shaped)	258-20	2	100／50	5.6×100	20	60
	258A-20	2	400／200	7.0×105	20	60
	258S2-20	1	150	5.6×100	20	60
Silica-gel tube	252S-20	2	400／200	7.0×105	20	60
	252S2-20	1	600	7.0×105	20	60
	252S3-20	2	150／75	5.6×100	20	60
	252S4-20	1	300	5.6×100	20	60

▪ Detector tubes for Automatic Air Sampling Pump

Gas or Vapour to be Measured	Chemical Formula	Tube No. & Name		Measuring Range (ppm)	Flow Rate (mL/min)	Sampling Time (min)	Colour Change		Note	Shelf Life (month)
							Original	Stain		
Acetone	CH_3COCH_3	151TP	Acetone	25-800	100	10	Yellow	Red	T	27*
Acrylonitrile	CH_2:CHCN	191TP	Acrylonitrile	3.0-12.6 0.2-3.0	50 100	10 10	Yellow	Pink	+T	24
Ammonia	NH_3	3S	Ammonia	0.5-5	150	5	Pink	Yellow		36
Benzene	C_6H_6	121P	Benzene	250-3000μg/m³	50	60	White	Brown	+	30
		121TP	Benzene	5-14.5 0.1-5	50 100	10 10	White	Brown	+	27
Chlorine	Cl_2	8TP	Chlorine	0.05-0.6	100	10	Pink	White		30
p-Dichlorobenzene	$C_6H_4Cl_2$	127P	p-Dichlorobenzene	100-3000μg/m³	100	30	Yellow	Pale reddish purple	+T	24
N,N-Dimethylacetamide	$CH_3CON(CH_3)_2$	183TP	N,N-Dimethylacetamide	3.0-57.5	100	10	Pink	Yellow	T	24
N,N-Dimethylformamide	$HCON(CH_3)_2$	183TP	N,N-Dimethylformamide	15-30 0.5-15	50 100	10 10	Pink	Yellow	T	24
Ethyl benzene	$C_6H_5C_2H_5$	122P※	Toluene	110-2750μg/m³	200	30	White	Pale brown	+	24
Ethylene oxide	C_2H_4O	163TPM	Ethylene oxide	1-50	50	10	Yellow	Reddish brown	+T	12*
		163TP	Ethylene oxide	0.1-5	50	10	Yellow	Pale orange	+T	12*
Formaldehyde	HCHO	91P	Formaldehyde	0.4-1.44 0.02-0.4	200 200	10 30	Yellow	Pink	T	12*
		91PL	Formaldehyde	0.20-0.80 0.01-0.20	200 200	10 30	Pale Yellow	Pink	T	12*
		91TP	Formaldehyde	0.50-1.75 0.01-0.50	50 100	10 10	Yellow	Pale orange	T	12*
Hexane	$CH_3(CH_2)_4CH_3$	102TP	Hexane	2-80	100	10	Yellowish brown	Greenish brown		36
Hydrogen cyanide	HCN	12TP	Hydrogen cyanide	4.5-9.0 0.3-4.5	50 100	10 10	Yellow	Pink		12
Hydrogen fluoride	HF	17TP	Hydrogen fluoride	3.0-9.0 0.05-3.0	50 100	10 10	Yellow	Brown	TH	30
Hydrogen sulphide	H_2S	4TP	Hydrogen sulphide	1.6-2.88 0.1-1.6	50 100	10 10	Yellow	Pink		24
		4S	Hydrogen sulphide	10-200ppb	150	5	Yellow	Purple	+T	18
Isopropyl alcohol	$CH_3CH(OH)CH_3$	113TP	Isopropyl alcohol	20-200	100 100	5 10	Pale vermilion	Pale blue	T	36
Methanol	CH_3OH	111TP	Methanol	20-300	50	10	Pale vermilion	Pale blue	T	24
Methyl ethyl ketone	$CH_3COC_2H_5$	152TP	Methyl ethyl ketone	20-300	100	10	Yellow	Red	T	24*
Nitrogen dioxide	NO_2	9P	Nitrogen dioxide	0.02-0.20	100	30	White	Orangish brown	T	30
Styrene	C_6H_5CH:CH_2	124S	Styrene	0.2-4	200	5	White		+	36
Tetrachloroethylene	Cl_2C:CCl_2	133P	Tetrachloroethylene	300-720μg/m³ 20-300μg/m³	100 100	15 30	Yellow	Purple	+T	24
		133TP	Tetrachloroethylene	40-84 2.5-40	50 100	10 10	Yellow	Reddish purple	+T	24
Toluene	$C_6H_5CH_3$	122P	Toluene	2500-7000μg/m³ 100-2500μg/m³	200 200	10 30	White	Pale brown	+	24
		122TP	Toluene	2-80	100	10	White	Brown	+	36
Trichloroethylene	Cl_2C:CHCl	132P	Trichloroethylene	500-1200μg/m³ 20-500μg/m³	100 100	15 30	Yellow	Purple	+T	24
		132TP	Trichloroethylene	15-33 1-15	50 100	10 10	Yellow	Reddish purple	+T	24
Vinyl chloride	CH_2:CHCl	131P	Vinyl chloride	50-1500μg/m³	100	30	Yellow	Pale reddish purple	+T	24
		131TP	Vinyl chloride	3.0-9.6 0.2-3.0	50 100	10 10	Yellow	Reddish purple	T	36
Xylene	$C_6H_4(CH_3)_2$	123TP	Xylene	2-80	100	10	White	Brown	+	24
		122P※	Toluene	540-13500μg/m³	200	30	White	Pale brown	+	24

T: Temp Correction H: Humidity Correction +: Twin Tubes * Refrigerated Storage ※Correction Factor

SCANTEC Industries NV
Westkaai 7•B-2170 Merksem - Antwerpen•België
Tel. : +32 (0)3/646 99 44•Fax : +32 (0)3/644 04 05
e-mail : info@scantecnv.be

BGI