

## BUD-GAS Multiple function gas blending system

### 1. Product introduction

BUD-GAS Multiple function gas blending system, using 10.1 inch bright intelligent large screen, equipped with 24 high-precision digital to analog conversion chip, can perfectly replace the current mainstream control instrument, and with the instrument can not achieve digital conversion and intelligent statistical functions. The system can be equipped with multiple groups of mass flow controllers and multiple electromagnetic valves. The installation platform reserves fixed installation holes and communication interfaces for different types of mass flow controllers, and users can add and expand them independently.



**BUD-GAS3H High pressure gas blending system**

The BUD-GAS series is divided into two types of ambient and high pressure gas blending system to achieve precise control and measurement of a single component and mixed components. It plays an important role in the scientific research and production of semiconductor and integrated circuit industry, special materials discipline, chemical industry, petroleum industry, medicine, environmental protection and vacuum and other fields.



**BUD-GAS -8A ambient pressure gas blending system**

Equipped with a variety of scientific research equipment, provide online gas distribution (tube furnace/thermogravimetric/infrared/test equipment/chemical adsorption instrument)



## 2. Product advantages

Through gas metering coefficient conversion, a gas factory calibration controller can be realized to accurately control a variety of different gas.

According to the actual use, select the control gas type in the gas type setting, the mass flow controller (MFC) identifies the gas calibration type when leaving the factory. For example, nitrogen calibration factory MFC, to control hydrogen, did not consider the conversion coefficient, then the flow meter set 30ml/min, in fact, H2 flow rate is 28.57ml/min.



The screenshot shows a software interface for a mass flow controller (MFC) calibration. The main part of the screen is a table titled '气体质量流量转换系数表' (Gas Mass Flow Rate Conversion Coefficient Table). The table lists various gases and their conversion coefficients. The columns are labeled '气体类型' (Gas Type) and '转换系数' (Conversion Coefficient). The rows are numbered 1 to 8. The table includes the following data:

通道	1	2	3	4	5	6	7	8
1	氮气	100	无	0	0	0	0	升
2	氢气	100	无	0	0	0	0	升
3	甲烷	100	无	0	0	0	0	升
4	无	0	无	0	0	0	0	升
5	无	0	无	0	0	0	0	升
6	无	0	无	0	0	0	0	升
7	无	0	无	0	0	0	0	升
8	无	0	无	0	0	0	0	升

Below the table are buttons for '参数设置加亮' (Parameter Setting Highlight), '累计清零' (Accumulated Clearing), '转换系数' (Conversion Coefficient), and '触摸校准' (Touch Calibration). To the right of the table is a smaller window titled '气体质量流量转换系数表' with a similar table structure. This window includes buttons for '设置' (Setting), '清洗' (Cleaning), and '关' (Off). The bottom of the screen has a note: '备注: 最大设定流量 = 流量控制器量程 \* 转换系数' (Note: Maximum set flow = Flow controller range \* conversion coefficient) and buttons for '返回' (Return) and '触摸校准' (Touch Calibration).

With mixed component gas control function, can accurately control a variety of components of the gas blending

The type and concentration of mixed components can be directly input on the interface to achieve accurate control. When the proportion of one component is input, the other component automatically completes the input to avoid input errors.



### Intelligent control and statistics

- (1) The working state of the mass flow controller and electromagnetic valve can be manually controlled according to the demand
- (2) Working hours can be set to achieve intelligent control
- (3) The system can record the running time and accumulated traffic of each working channel

### 3. Main technical parameters

Control system	Intelligent touch control system can be equipped with up to 8 mass flow controllers, and 2 to 3 control units can be reserved (Supports the replacement of MFCS of different ranges)
Digital-to-analog conversion	Advanced 24-bit digital-to-analog conversion circuit, much higher than the meter, to achieve digital flow meter conversion accuracy
Intake control	Manual switch valve or electric valve; It can expand 1 ~ 8 24V solenoid valves to achieve effective cutoff of air intake source
Control scheme setting	The working time can be set, the mixed component gas can be controlled, the cumulative working flow can be obtained, and the

	different component gas can be controlled by changing the conversion coefficient.
Working time setting	Each channel can be independently set, the setting range is 0-60000 minutes, and supports uninterrupted operation.
Flow control range	Customized, support 1 decimal place setting, 0.0 ~ 100.0 mL/min Year-round stock.
Application gas	Refer to mass flow controller parameters.
Intelligent control	Automatic memory scheme, easy to call; Automatic statistics of time and gas volume.
Repeatability	±0.2%F. S.
Operating temperature	5~45°C

BUD-GAS8A ambient pressure gas blending system	
Five-way gas distribution	L33cm×W27cm×H68cm, contain MFC
Two way gas distribution	L33cm×W 27cm×H 48cm, contain MFC
Single control system	Port groups 2 to 8, customized as required
Working pressure differential	10ml/min~5L/min: 50~300KPa (d) 10L/min~30L/min: 100~300KPa (d)
Working voltage withstand	3MPa
BUD-GAS3H High pressure gas blending system	
High-pressure storage cylinders	On-demand customization
Working pressure	On-demand customization
Safety pressure	<3MPa
Specification and size	Aluminum frame, customized on demand