

*Technology for a better future*



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No. 303160121 A1.

## 381XE Series Terminal Unit Operating Instruction



☞ please read and understand all the safety and operating instructions before using this product and store it for future reference

## Genstar Technologies

Batch Number:

Manufacturing Date:

## 1. SAFETY WARNING

According to national regulations, manufacturers must inform users the safety warnings about installations to ensure safety of medical instruments and products. Gentec is not responsible for damages or injuries caused by misuse of this product or application other than the intended use.

- This device can only be used for the specific medical gas. Do not use pressure greater than the specified maximum pressure.
- Before usage, check to see if the device is in working order and none of the parts are damaged. Any damaged parts might result injuries and should not be used.
-  Before using this product, make sure that the device, its environment, and its gas source are not contaminated with oil. If cleaning and testing is required, mild home use detergent can be applied. Do not use any detergent containing organic solvent, synthesized fat, and oil chemical reagents. These may cause combustion and serious injuries.
-  When using this product, make sure that no flame or flammable sources are present to avoid explosion or serious injury (fire combusts rapidly under the present of oxygen).

## 2. Intended Use

381XE series terminal units are used by the central medical gases and vacuum supply systems to provide fast connectors for pendants in hospital wards, and operation rooms.

## 3. Features

The terminal unit complies to CE and ISO 9170-1 standard. German standard terminal unit complies to DIN 13260-2 with sliding bolt-lock to ensure locking safety. You may push down the outer cap gently to remove the connector. British standard terminal unit complies to BS5682. All terminal units share the integrated structures with same base block. Maintenance is possible without turning off the

gas supply.

German standard terminal unit utilizes pressure relief check valve. When removing the connector, pressure would be relieved first to prevent connector shooting out to injure user.

## 4. Specification

4.1 Temperature -20°C~60°C, humidity 10%~95%;

4.2 Working pressure:

Oxygen、Compressed Air, Nitro-Oxide, Carbon-Dioxide: 0.4 MPa

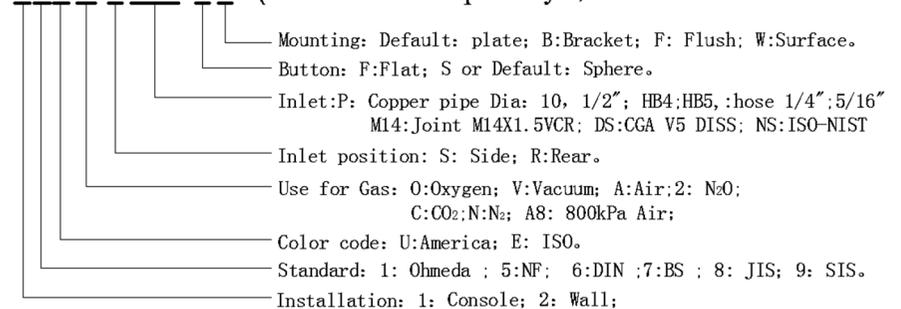
Nitrogen, Instrument Air: 0.8 MPa

Vacuum: -0.1 MPa

4.3 Maximum flowrate larger than 100L/min; Inhaling flowrate larger than 40L/min.

4.4 Model number

38?XU-O-S XXX-F/B (Last tow for European style)



## 5. Installation and Operation

5.1 Precaution before installation

All gas terminal types have same installation size, however, different gases are distinguished by different color, names, gas specific connectors to eliminate the possibility of using wrong gas.

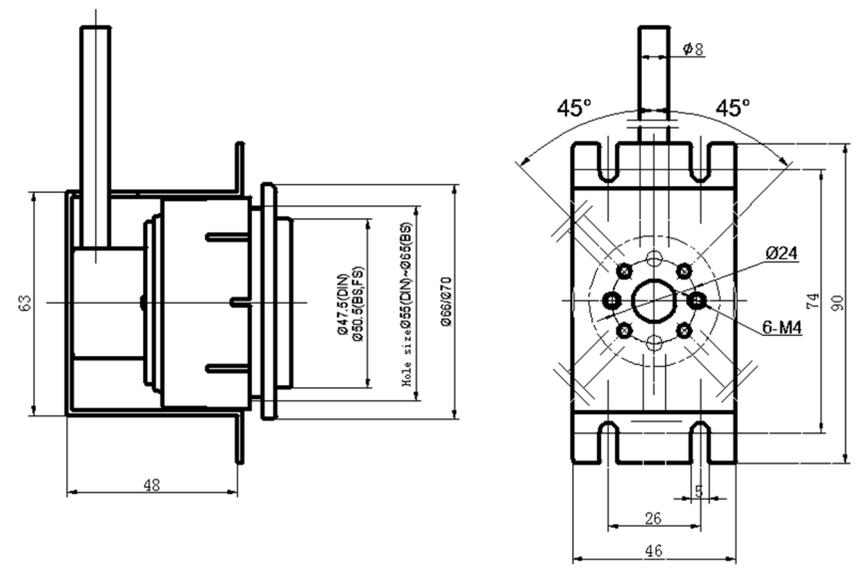
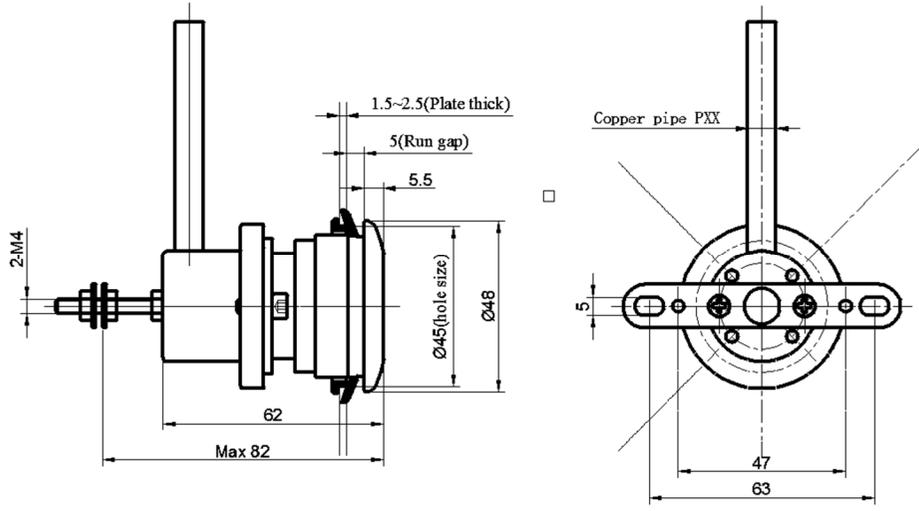
5.2 Configuration and installation dimensions

See figure 1 for installation dimensions

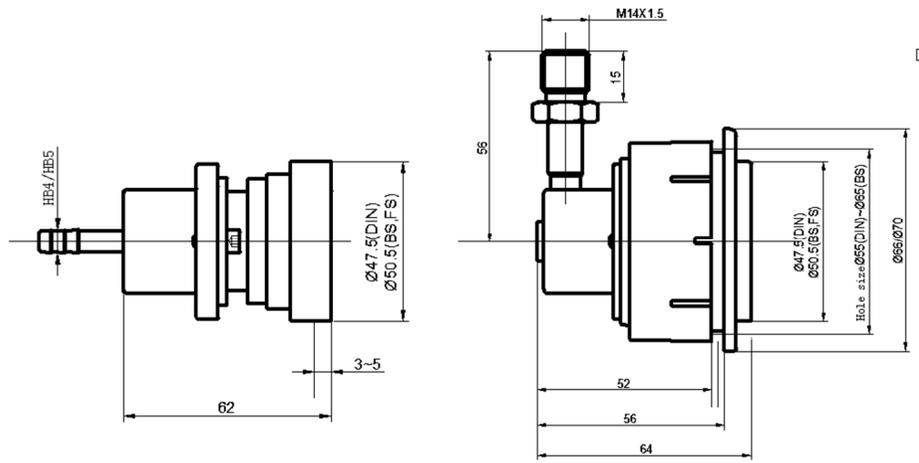
Inlet for terminal unit:

Welding inlet is deoxidized  $\phi 8$  TYPE K copper tube;

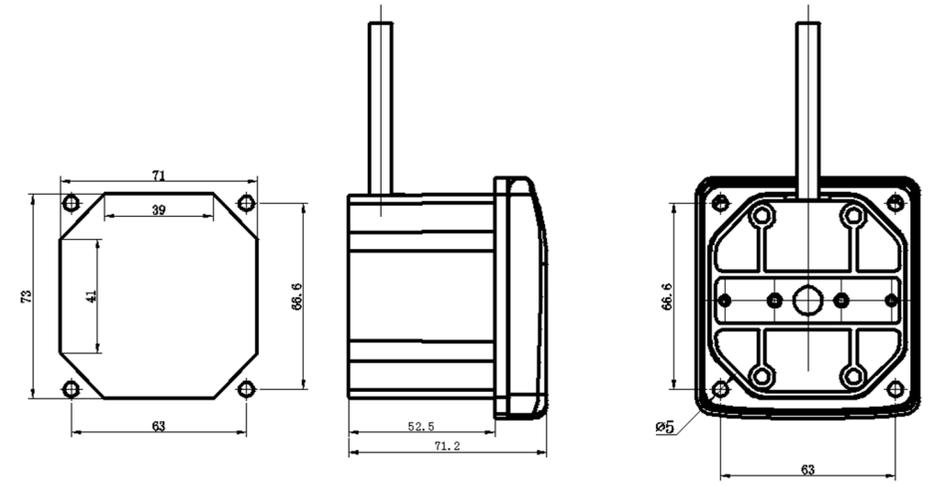
Flexible hose for vacuum is  $\phi 8$ ; Others air  $\phi 6$ .  
 Nipple connection M14X1.5 spherical connector.



Sphere Button and Copper pipe

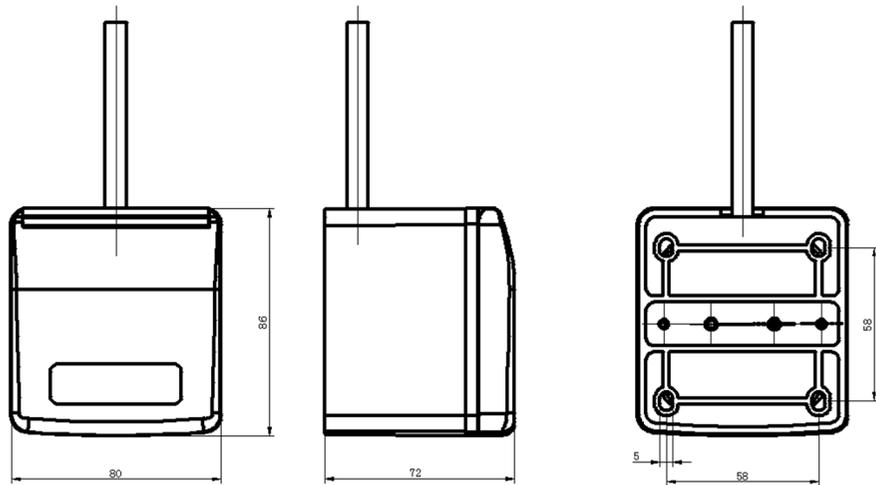


Flat Button and Bracket mounting



Flat button and Joint M14x1.5 and hose

Flush Mounting with box and copper pipe



Surface mounting with box and copper pipe  
Figure 1 Installation dimension

### 5.3 Installation

The terminal unit should be installed horizontally on a flat surface. Leave enough space between pressure lid and faceplate to ensure the connection to be effective.

Station terminals on brackets (provided by the installer), remove protective cover and inspect for dirt or debris in the outlet body. Clean out the contaminants, if required. Solder the terminal inlets with the system pipeline. When soldering the pipe connection take care not to heat up the body, since that could damage the secondary check valve and the terminal. When installing, make sure that no contaminants enter the system. To prevent oxidation during soldering, nitrogen gas should be purged during soldering.

The system should be purged by dry air or nitrogen after installation. Terminal nipple or soft rod can be used to open up the check valve inside the terminal unit to purge waste gas. The pipeline should be pressurized for leakage test. Each terminal unit leakage shall not be greater than 0.296ml/min.

**Do not inspect the terminal units before the connection hole to avoid accidents**

**or injuries.**

The labels on terminal units to indicate that the system is under test and do not use don't be rip off until system test done.

### 5.4 Operation

Before usage, make sure the terminal unit and connector are not contaminated and check if they are for compatible gas type.

- Connecting: point the connector to the hole of terminal unit for quick connection. When you the clicking sound, the connection is complete. When connecting, do not hold down the pressure lid else the connection cannot be complete.
- Disconnecting:
  - a. Press down the pressure lid and the connector will be pushed out slightly. At the moment, the pressure inside the connector will be vented out. The connector cannot be pulled out at this stage.
  - b. After depressurized, let go of the pressure lid and pull out the connector. **Note: connector cannot be pulled out if pressure lid is not let go.**

### 6. Maintenance

When the terminal unit is contaminated or malfunctioned, maintenance or repair is possible. **Do not inspect the terminal units before the connection hole to avoid accidents or injuries.** Maintenance should be performed as follow:

- a) Take off circlip (See figure 2);
- b) Take off the pressure lid; (See figure 2);
- c) Loosen the screws but do not remove them. (See figure 3); Turn off the maintenance valve to cut off the gas source. Small leakage may happen during maintenance. If the procedure is long, the source should be cut off from outside. Turn the body counterclockwise to remove it (See figure4).
- d) Turn the body and remove the body from the installation opening (See figure 5);
- e) Maintain the parts after disassembling.

Assembly procedures are reverse. The gas-specific dowel pins are different in sizes.

Wrong type of base blocks and valves cannot be interchanged.



Figure 2

Figure 3



Figure 4

Figure 5

## 7. Troubleshooting

Only people that have been properly trained and certified can perform repairs on this device. Please do the following:

Problem	Probable Cause	Corrective measure
Terminal units leaks when the connector is removed.	Malfunction in the terminal check valve due to foreign objects into the terminal unit.	Follow 6. Maintenance to remove and clean.
Connector cannot be removed after cap is held down.	The terminal unit is installed too low, hence not enough space to operate	Readjust the height of terminal unit.
Connector cannot be inserted into the terminal units	Wrong type of connector is used.	Check the terminal units and connector are matching.
Body cannot be locked into position	Body and base block are not match	Use the correct body.

## 8. Technical Support

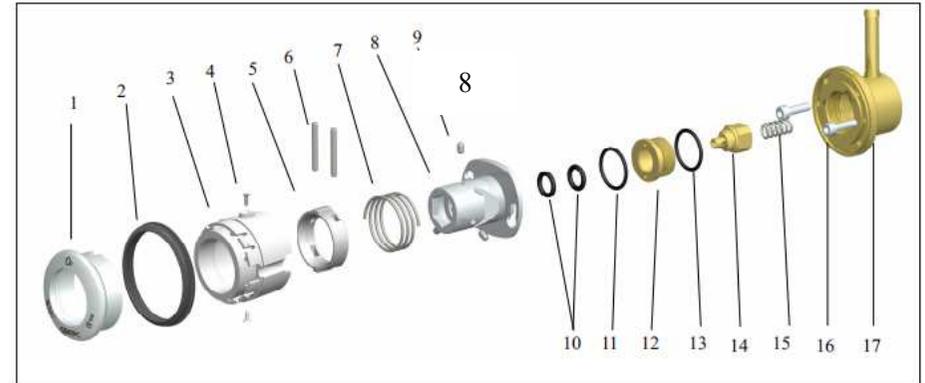
If by taking the trouble shooting measures listed above still cannot fix your problem,

please contact Gentec customer service. Gentec will assign experienced technician or engineer to assist you. When contacting us, please provide the following information:

Product model number, usage related information, defect description, and actions taken before contacting use.

One year warranty is provided under normal storage and usage.

## 9. Repair Parts



Repair Parts											
Nº	Description	Part No.	Mode No.	Material	Nº	Description	Part No.	Mode No.	Material		
1	Button	Oxygen	304763714	3816E-O-16D	ABS or Aluminum	9	Short pins(O <sub>2</sub> & Air)	302060370	3826E-O-02	304	
		Vacuum	304763724	3816E-A-16D			Short pins( Vac)	302060360	3826E-V-07A		
		Air	304763734	3816E-O-16D			10	Socket O rings	300760330		3816E-V-16
2	Dust ring	302960042	3816-H-208B	Rubber	11	O rings for body	C62300430	RE70-13X2	EPDM		
3	Jacket	Oxygen	305216714	3816E-T04B-W	PC+ABS	12	Valve seat	305216640	3816E-T-09	C3602	
		Vacuum	305216724	3816E-T04B-Y			13	O ring for block	300760930	RS70-16X1.8	Silicon
		Air	305216734	3816E-T04B-BK				14	Valve(O <sub>2</sub> & Air)	305216610	3816E-O-08A
4	Screws M4x8	300661140		ST2.2X6.5-F	304	14	Valve(Vac)		305216620	3816E-O-08B	
		5	Action ring (O <sub>2</sub> & Air)	3028602211	3826E-H-04A2		PA	15	Spring	Vacuum	300460280
5	Action ring (Vac)	3028602211		3826E-H-04A2	304	16				Bolts	300660830
		6	Long pins (O <sub>2</sub> & Air)	302060100			3816E-A-04	17	Base block		305216418
6	Action ring (Vac)	302060380		3816E-V-05A	304	17	Base block			Vacuum	305216428
		8	Socket	Oxygen				30026611	3816E-O-01A	C3771+ Plating	17
Vacuum	30026621			3816E-V-01A							
8	Socket	30026631		3816E-A-01A	C3771+ Plating	17	Base block				