USE AND MAINTENANCE HANDBOOK FOR

# CARBUROS COMPATIBLE TERMINAL UNITS AND ACCESSORIES

CONFORM TO EN ISO 9170-1 STANDARD









93/42/EEC

# 1. General information

# 1.1 Introduction

Pres Block CARBUROS compatible terminal units and accessories are "CE" marked medical devices, built to comply with European Directive 93/42/EEC and standards EN ISO 9170-1.

Before using the device, please read this handbook and ensure it is read by authorized operators.

# 1.2 Intended purpose

Pres Block terminal units and accessories have been designed to connect in a safe way medical equipment to the medical gases distribution system.

# 1.3 Classification and information under 93/42/EEC Directive The medical device:

 is identified with class of risk IIb, according to rule 11 of Annex IX of Directive 93/42/EEC:

- is neither for single use, nor sterile;
- · does not intentionally contain latex;
- does not incorporate neither medicinal substances, nor biological or animal tissues, nor human blood:
- does not contain phthalates classified as carcinogenic, mutagenic or toxic to reproduction.

#### 1.4 Marking

Marks on every device are:

" PB" or "Pres Block"	Identifies Pres Block as the manufacturer		
" <b>C €</b> 0476"	Identifies the Notified Body that approved the CE certification for the device		
Symbol of the gas distributed	according to EN ISO 9170-1 standard		

Batch Numbers and other markings per component:

Sockets		
Referenced standard		
Batch number: as a date stamp [XXYY], followed by one or two letters identifying the gas [ZZ]. "XX" stands for the year of manufacture		
Name of the Customer	(optional)	
Base Blocks: Please refer to handbook FTGTD05Z		

# 2. Technical information

# 2.1 Components

Available components are:

Name	Code (initial part)	Description	
BASE BLOCK	ZARMOR	Part connected to the distribution system. Please refer to handbook FTGTD05Z.	
SOCKET	VGTC	Part connected to the base block by a gas- specific interface. It contains the gas-specific connection point with the probe.	

# 2.2 Technical and Operating characteristics

In compliance with the following standards:	EN ISO 9170-1		
Transport, storage and working temperatures range:	-20 ÷ +60° C		
Transport, storage and working humidity range:	½ 10 ÷ 90 %		
Atmospheric pressure limits:	700 ÷ 1060 hPa		
Materials used:	Brass (type CW614N) with and without nickel plating, Aluminium EN AW-2011, Zamak (zinc alloy), AISI (302/303/304/420), PA66, PE, EPDM		
Lubricants:	Compatible with distributed gases (especially for O2)		
Distributed gases and relative working pressures:	O2; N2O; CO2; Air; mixtures	from 320 kPa to 600 kPa	
	Vacuum	from -10 kPa to -60 kPa	
	N2; Air-800	from 560 kPa to 1200 kPa	

#### 2.3 Transport and storage

The original packaging is designed to guarantee the proper transport and storage of the product, in compliance with the requests of EN ISO 15001 standard.



The device must be transported and stored in its original packaging; any damage to the packaging may be detrimental to the functioning or safety of the product.



The device must be protected from atmospheric agents (rain, snow, etc.): water may cause malfunctioning.

# 3. Installation



The medical device must be installed only by expert and authorized operators. The installation must strictly follow these instructions and the requests of EN ISO 7396-1 standard.

The medical device must be installed at an easily accessible height, reducing as much as possible the risk of damages, due to furniture or other medical devices, and granting a distance ≥ 100 mm between 2 consecutive terminal units.

All the materials used during installation must be compatible with the gases supplied and the materials of the device.

Every precaution must be taken to guarantee and maintain the cleanliness of the device according to EN ISO 15001 standard.

Before installation, verify that the device is compatible with the devices it must be connected with, especially if supplied by different manufacturers.

Before use, connect the device to equipotential earth.

#### 3.1 Base blocks

Please refer to handbook FTGTD05Z.

# 3.2 Sockets VGTC-OR



Perform the following operations in succession:

- align the 2 fixing holes I/D 4,5 mm (1) with the 2 females M4 threaded of the base block.
- fix the socket onto the base block tightening at the same time the 2 M4 screws (supplied with the base block) with an Allen wrench;
- apply the red label "NOT OPERATIVE", taking it away only when all final tests of the system have been performed.



Once installation is completed, verify the tightness: no leakages are allowed.

Afterwards all the tests required by EN ISO 7396-1 standard must be run.

# 4. Use

### 4.1 Function

# **SOCKET / PROBE CONNECTION**

- 1. Verify that the socket and the probe are designed for the same gas and have the same profile;
- 2. Grasp the probe and turn it aligning its profile with the corresponding profile of the socket
- 3. Insert the probe into the socket applying sufficient force to overcome the upstream pressure:
- Release the probe verifying that it remains fully anchored into the socket.



# SOCKET / PROBE DISCONNECTION

- 1. Keep the probe, in order to prevent its quick projection;
- 2. Pull the probe release sleeve toward you, applying sufficient force to overcome the pressure upstream;
- 3. Remove the probe from the socket



# 4.2 Cleaning

For cleaning use only distilled water or diluted ethyl alcohol.

# 4.3 Safety

Before use, personnel must familiarize with the control devices and their operation.

If the medical device is out of order or in maintenance, disconnect the gas supply and place a visible sign stating "NOT IN SERVICE. DO NOT USE".



Do not use the medical device for gases or pressures different from those for which it is designed.

Do not try to insert probes designed for a different gas and/or different standard into the sockets. This may damage both devices.

# 5. Maintenance

The maintenance program must envisage a minimum of biannual inspections with particular reference to:

- easy coupling and disconnection:
- wear or damage;
- · contamination;
- marking labelling;
- · tightness;
- flow rate according to EN ISO 7396-1.

These operations must be recorded.



Every precaution must be taken to maintain the cleanliness according to the requests of EN ISO 15001 standard.

During maintenance and repair only original parts must be used.

Do not use lubricants that aren't compatible with the distributed gases at their operating pressures. Especially in the case of contact with oxygen there might be safety issues relating to fire or explosion, if an incompatible lubricant is used.

Once maintenance is completed, all the tests required by EN ISO 7396-1 standard must be run again.

