USE AND MAINTENANCE HANDBOOK FOR

AFNOR NF S 90-116 / FD S 90-119
TERMINAL UNITS / PROBES AND ACCESSORIES

CONFORM TO EN ISO 9170-1 STANDARD

CE 0476
93/42/EEC

1. General information

1.1 Introduction

Pres Block NF S 90-116 / FD S 90-119 terminal units, probes and accessories are medical devices "CE" marked, built to comply with 93/42/EEC European directive and EN ISO 9170-1 and NF S 90-116 / FD S 90-119 standards.
Before using the device, please read this handbook and ensure it is read by authorized operators.

1.2 Destination of use

Pres Block terminal units, probes 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
"CE 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 standards	
Batch number: either as a data stamp [XXYY], followed by one or two letters identifying the gas [ZZ] or as "LOT XXYYZZ". In both cases "XX" stands for the year of manufacture	
Name of the Customer	(optional)
Base Blocks: Please refer to handbook FTGTD05Ze and FTGTI05e	
Probes and Adaptors	
"LOT XXYYZZ"	Batch number, where XX identifies the year of manufacture
Referenced standard	(optional)

2. Technical information

2.1 Components

Available components are:

Name	Code (initial part)	Descriptions
BASE BLOCK	ZARMOR ZARM	Part connected to the distribution system. Please refer to handbook FTGTD05Ze for ZARMOR and to handbook FTGTI05e for ZARM.
SOCKET	VGTF…-OR	Part integrated in or connected to the OR-base block by a gas-specific interface. Contains the gas-specific connection point with the probe.
	VGTF	Part connected to the base block by a gas-specific thread. Contains the gas-specific connection point with the probe.
PROBE	IGTF / IGTGF	Male component which is connected into and retained by the socket.
ADAPTOR / SET	AGTF	Component for special applications / Set made up of several components intended as a single device

2.2 Technical and Operating characteristics

In compliance with the following standards:	NF S 90-116 / FD S90-119 and EN ISO 9170-1	
Transport, storage and working temperatures range:	-20 ÷ +60° C	
Transport, storage and working humidity range:	10 ÷ 90 %	
Atmospheric pressure limits:	700 ÷ 1060 hPa	
Materials used:	Brass (type CW614N or CW617N) with and without plating (chrome or nickel), Zamak (Zinc alloy), AISI (302/304/420), ABS, PA66, PE, POM, 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.

33.1 Base blocks

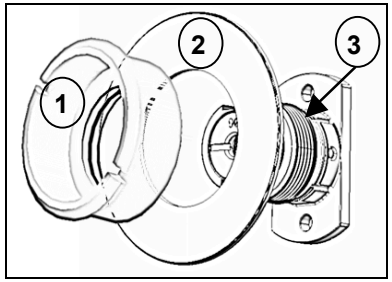
Please refer to handbook FTGTD05Ze for ZARMOR base blocks and to handbook FTGTI05e for ZARM base blocks.

3.2 Sockets

Socket model VGTF…-OR…

Perform the following operations in succession:

- align the 2 fixing holes I/D 4,5 mm. with the 2 females M4 threaded of the OR base block;
- fix the socket onto the ZARMOR base block tightening at the same time the 2 M4 screws (supplied with the base block) with an Allen wrench;
- fix the terminal unit into the box with the metal nuts, if supplied;
- place the gas identification disc (2) on the cassette, securing it by means of a special plastic nut (1) that is screwed on the socket body (3).
- point out that the socket cannot be used, because final tests on the system must be run before its use.



Socket model VGTF…
Perform the following operations in succession:
- screw the socket on the ZARM base block (always threaded right, apart from air and nitrogen outlets with left thread);
- fix the terminal unit into the box with the metal nuts, if supplied;
- place the gas identification disc (2) on the cassette, securing it by means of a special plastic nut (1) that is screwed on the socket body (3).
- point out that the socket cannot be used, because final tests on the system must be run before its use.

3.3 Probes

Probe with barb end terminal IGTF…PG… and IGTGF...PG...
Perform the following operations in succession:
- fix the barb end to the flexible hose (I/D 6 or 8 mm.) with a suitable single-use clip or crimped ferrule, according to EN ISO 5359 standard.

Probe with threaded terminal IGTF…F… and IGTF…M…
Perform the following operations in succession:
- fix the threaded terminal granting the tightness with a suitable O-ring or PTFE tape.

3.4 Adaptors

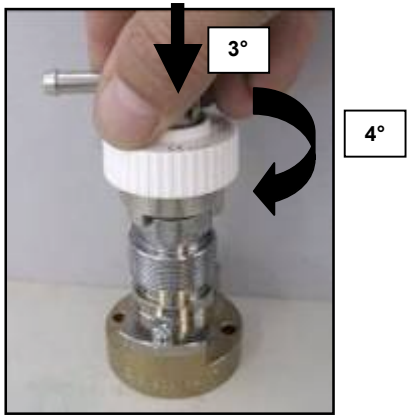
Perform the following operations in succession:
- fix the adaptor to the panel using suitable screws;
- fix the barb end to the flexible hose (I/D 6 mm.) with a suitable single-use clip or crimped ferrule, according to EN ISO 5359 standard.

Once installation is completed, verify the tightness: no leakages are allowed.
Afterwards testing required by EN ISO 7396-1 standard must be run.

4. Use

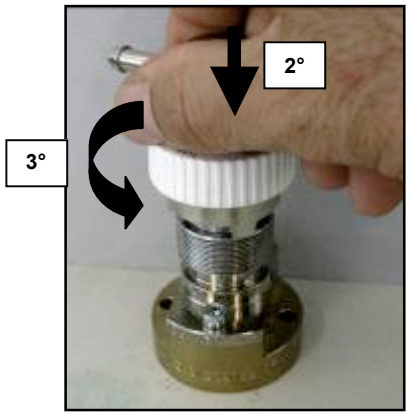
4.1 Functioning

SOCKET / PROBE CONNECTION
1. Verify that the socket and the probe are designed for the same gas and that they refer to the same standard;
2. Grasp the probe and turn it aligning its profile with the corresponding profile of the socket;



3. Insert the probe into the socket with enough force to oppose the upstream pressure;
4. Rotate clockwise the probe;
5. Release the probe verifying that it remains anchored into the socket.

SOCKET / PROBE DISCONNECTION
1. Keep the probe, in order to prevent its quick projection;
2. Push the probe towards the base block with enough force to oppose the upstream pressure;
3. Rotate anticlockwise the probe;
4. Pull out 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 operations.
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 crash the probe, in order not to spoil its functionality.
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.
The following maintenance kits are available for the sockets:
- VGTF-RIC (for all gases except VAC and AIR-800);
- VGTF-A8-RIC (only for AIR-800);
- VGTF-V-RIC (only for VAC).

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, testing required by EN ISO 7396-1 standard must be run again

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