MEDICAL GAS TERMINAL UNIT

Installation, Operation & Maintenance Manual

Japanese-Type Interface | GOJ03



Fig. 1 Oxygen terminal assembly – illustrative view

01 Intended Use

The GOJ03 medical gas terminal unit provides a point of connection at the end of a medical gas pipeline system. A gas-specific mating probe connects medical equipment or a hose assembly. Typical installation locations include bed-head units, operating theatres, intensive care areas and other healthcare spaces with medical gas pipelines.

Each outlet is dedicated to its designated gas service. The gas label, mechanical indexing and mating probe must match; outlets and probes for different gases are not interchangeable.

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02 Safety Instructions

2.1 Installation, testing, servicing and disassembly shall be performed by trained personnel. If medical gas service may be interrupted, follow the healthcare facility's isolation, notification and alternative supply procedures.

2.2 Never apply oil, grease or unapproved lubricants to the terminal, mating probe or gas-contact components. Oxygen service requires particular protection from combustible contamination.

2.3 Never force an incompatible probe into an outlet or modify the indexing components, locking mechanism, valve or seals. Do not strike or pry the outlet.

2.4 Keep the terminal away from open flames, excessive heat and sources of contamination. Cleaning liquids, brazing residue, metal particles and other foreign matter must not enter the gas passage.

2.5 Do not place an outlet into clinical service until gas identification, mechanical compatibility, pressure and leakage checks, and system commissioning have been completed by authorized personnel.

03 Technical Specifications

Parameter	Value
Ambient temperature	−20 °C to +60 °C
Relative humidity	10%-95% RH
Oxygen, medical air, N_2O and CO_2 – working pressure	0.4 MPa
Tools Air (instrument air) – working pressure	0.8 MPa
Medical vacuum – working pressure	−0.075 MPa
Gas supply flow (source manual)	> 100 L/min
Vacuum suction flow (source manual)	> 40 L/min
Terminal leakage criterion (JIS T 7101)	≤ 0.296 mL/min (0.03 kPa·L/min)

Operating figures are transcribed from the supplied product manual. Flow values must be interpreted with their defined test conditions; the leakage limit is the JIS requirement, not a substitute for the GOJ03 test report. Commission the complete system under the applicable medical gas procedures.

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04 Gas Services & Ordering Codes

Identify a gas service by its printed name, mechanical indexing and mating probe together. Do not rely on colour alone.

Gas service	Identification colour	Wall type	Console type
Oxygen		JIS-WAL-OXY	JIS-CON-OXY
Vacuum		JIS-WAL-VAC	JIS-CON-VAC
Medical Air		JIS-WAL-AIR	JIS-CON-AIR
Nitrous Oxide		JIS-WAL-N2O	JIS-CON-N2O
Carbon Dioxide		JIS-WAL-CO2	JIS-CON-CO2
Tools Air		JIS-WAL-AIR7	JIS-CON-AIR7

Table 1 Gas identification colours and ordering codes

The colour swatches follow the supplied product colour-identification chart; the Tools Air marking is shown in red, as on the supplied faceplate artwork. Always verify the gas name and gas-specific connector before connection.

05 Pre-installation Checks

5.1 Confirm the model, gas service, mechanical indexing and corresponding pipeline gas. Inspect the outlet, seals, inlet connection, protective caps and fasteners for damage.

5.2 Confirm the installation position, opening and mating-probe clearance against the project drawings. Avoid tensile or bending loads from the pipework.

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06 Supplied Bracket Drawing

Slotted Bracket — Dimensions in millimetres

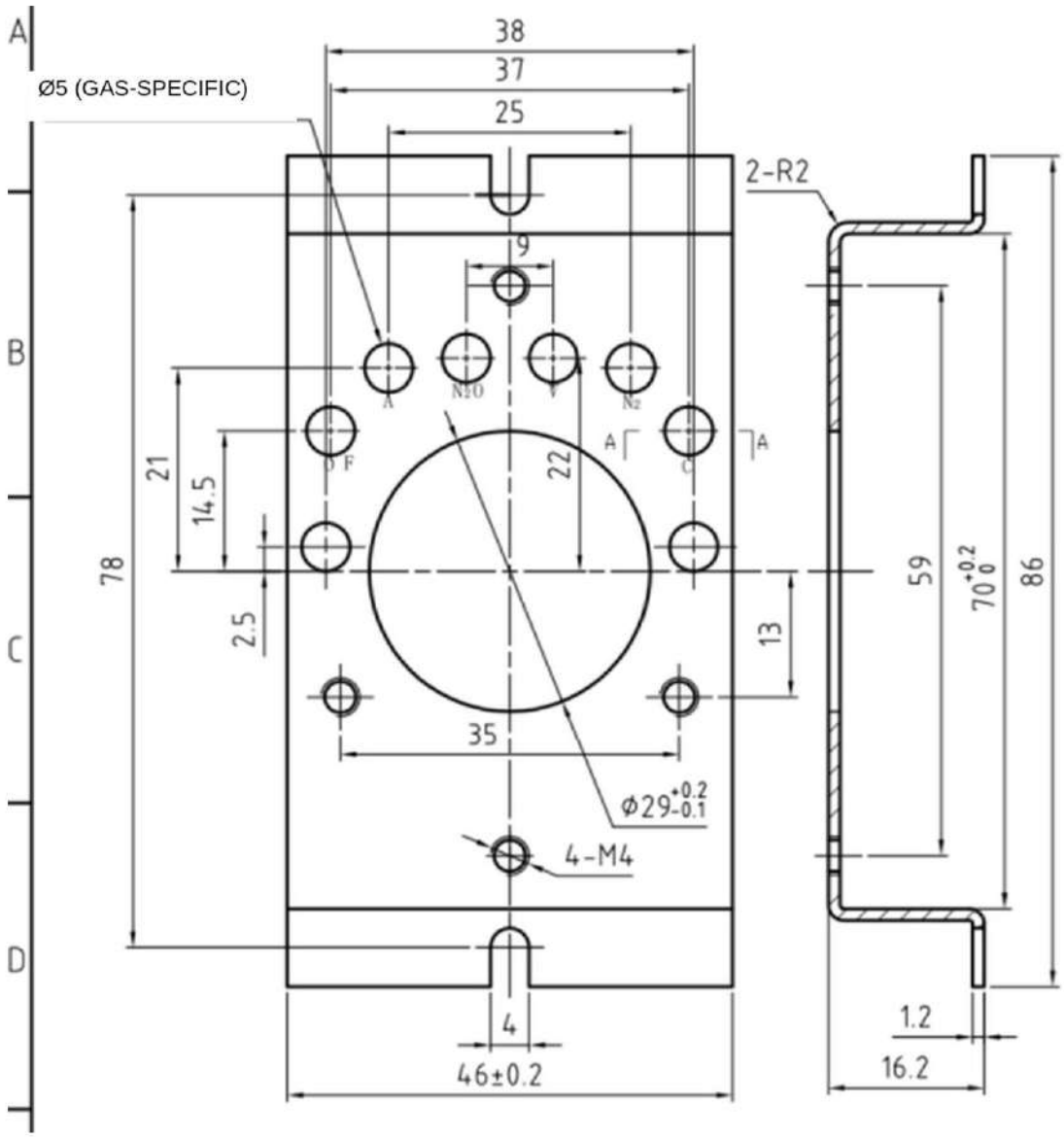
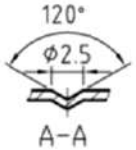


Fig. 2 Supplied slotted bracket drawing (mm)

The source drawing title identifies an Ohmeda-style bracket. Do not determine the GOJ03 wall opening or drilling pattern from this illustration unless its compatibility with the supplied outlet and mounting kit has been verified against the approved fabrication drawing.



Bracket Fabrication Notes

- Dimensional tolerance grade: IT14 unless otherwise specified.
- Remove sharp edges and burrs; plated finish.
- Machine the gas-specific Ø5 indexing hole for the gas service.
- Material: cold-rolled steel sheet; other surfaces Ra 3.2.

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07 Component Identification & Assembly Sequence

The figures below show the external relationship among the terminal body, gas-labelled faceplate, trim frame and finished outlet. Internal valve and seal disassembly is not part of on-site installation.



01 Inspect terminal body and inlet pipe

Inspect the copper inlet, metallic body and connection. Keep contact surfaces clean and prevent pipe strain.



02 Position gas-labelled faceplate

Align the gas-specific faceplate and fixing holes. The outlet must remain centred, with the gas label correctly oriented.



03 Fit external trim frame

Seat the trim frame evenly against the support without bending or compressing the faceplate.



04 Inspect completed assembly

Check alignment, gas marking, latch function and inlet connection. Perform commissioning checks before use.

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08 Pipe Connection & Terminal Mounting

8.1 When brazing copper pipework, use suitable dry, oil-free nitrogen for internal purging to minimise oxide formation. Protect the outlet valves, seals and housing from brazing heat.

8.2 After connecting the pipework, secure the outlet to its mounting structure. Align the outlet and faceplate; avoid overtightening, pipe twisting and connector strain.

8.3 Keep all pipe ends and outlet openings sealed against dust during installation. After installation, maintain clean interfaces and fit the protective cap.

09 Purging, Testing & Commissioning

9.1 Purge with clean, dry, oil-free test gas appropriate to the installation, using a compatible dedicated test connector. Never push open the internal outlet valve with a rod, screwdriver or another unsuitable tool.

9.2 Carry out pipeline pressure testing and terminal leakage checks separately under the applicable commissioning procedure. Do not expose the outlet valves or seals to pressures beyond their permitted limits.

9.3 Before commissioning, confirm that each outlet gas designation matches the pipeline gas. Test insertion, locking, retention and release with the matching gas-specific probe; confirm that incompatible probes do not engage.

9.4 Test leakage with the probe connected and removed, and check retention under the specified test conditions. Verify gas service identity, adequate flow, pressure drop and absence of cross-connections in accordance with the commissioning specification. Document the results for each outlet.

10 Operation

10.1 Before use, confirm matching gas labels and connector geometry on the outlet and equipment probe. Check that the probe is clean and undamaged and that the outlet marking is legible.

10.2 Connection: Remove the protective cap. Align the matching gas-specific probe with the outlet index and insert it straight until it latches. Gently pull to verify secure retention, then check supply or suction at the connected equipment.

10.3 Disconnection: Stop the connected equipment as directed by its instructions. Release the matching probe using the designated release control for the supplied outlet configuration, then withdraw by holding the probe body. Never pull the hose or force removal.

10.4 After disconnection, check that the self-closing valve has closed without persistent leakage. Replace the protective cap. Remove the outlet from service if engagement, locking or sealing is abnormal.

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11 Cleaning & Maintenance

11.1 Before each use, verify legible gas identification, the protective cap and correct probe engagement. Include each outlet in the healthcare facility preventive maintenance programme, with inspections for looseness, wear, corrosion, leakage and correct latching.

11.2 Clean exposed surfaces with a soft cloth and a cleaning agent compatible with the surface materials. Dry the outlet after cleaning. Do not immerse the terminal or spray liquid into its opening.

11.3 For leak detection, use a product compatible with the gas service and materials. Prevent liquid ingress into the gas passage and remove residue after the test.

11.4 If leakage, failure to latch, sticking, looseness or damage occurs, remove the terminal from service under the facility's gas-management procedure. Servicing must use compatible, gas-specific parts and the approved maintenance instructions; repeat leakage and functional tests before return to service.

12 Troubleshooting

Symptom	Action
Probe will not insert	Verify the gas designation, mechanical indexing and cleanliness. Never force insertion.
Probe will not latch	Remove the outlet from service and inspect the probe and locking mechanism.
Connection / disconnection is difficult	Stop forcing the probe and request inspection by qualified personnel.
Persistent outlet leakage	Isolate the outlet under the facility's gas supply procedure and arrange servicing.
Insufficient supply or suction	Check the source, pipeline system and terminal function.

Checks After Service

After servicing or replacement, verify gas identification, gas-specific indexing, probe locking and release, and leak tightness with the probe connected and removed. Record checks under the applicable acceptance procedure.

Storage & Transport

Store and transport in a clean, dry environment away from corrosive substances. Protect against impact, compression and moisture. Keep inlet and outlet openings capped and the gas-contact surfaces protected from contamination.

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