

RTM3

1.3

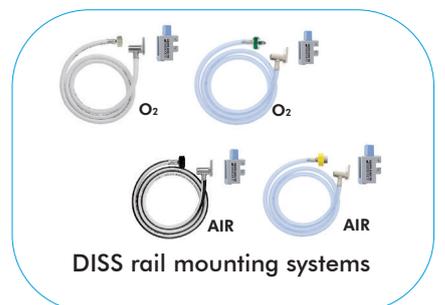
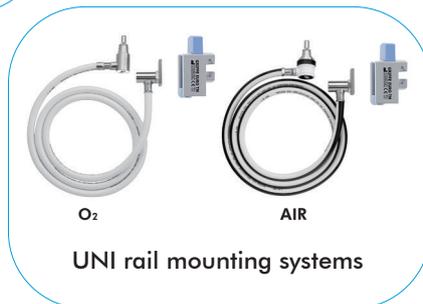
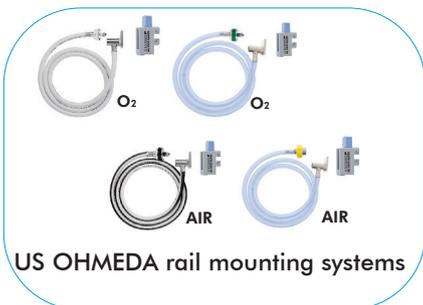
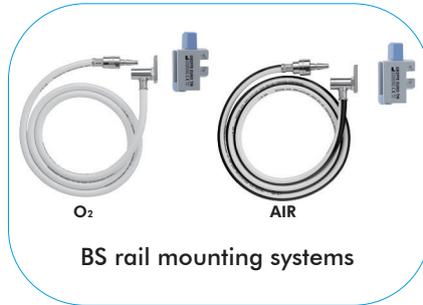
OXYGEN-THERAPY
FLOWMETERS WITH
FLOATING BALL



TECHNOLOGIE
MEDICALE

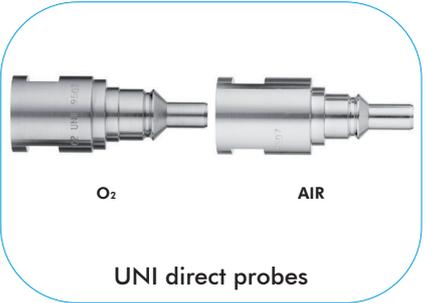
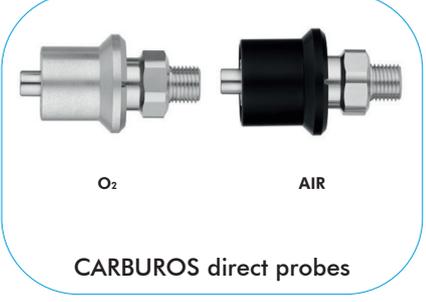
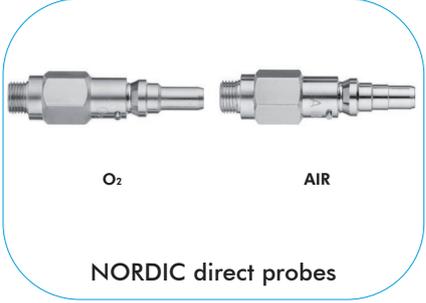
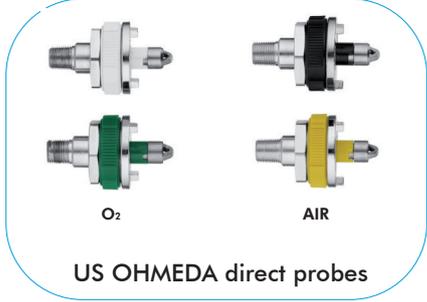
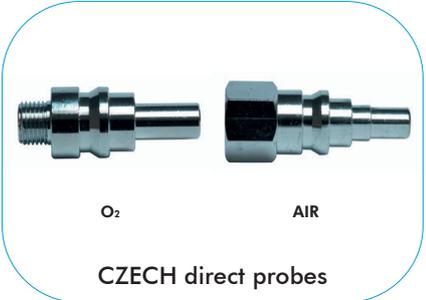
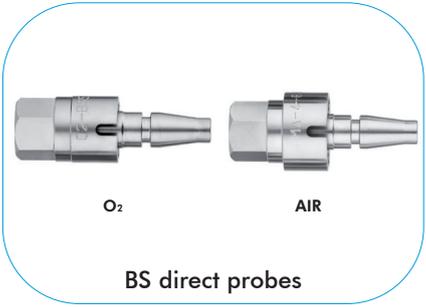


RAIL MOUNTING SYSTEMS



Others standards available upon request.

DIRECT PROBES



Others standards available upon request.

RTM3

1.1

The RTM3 flowmeter with floating ball is used to adjust and measure the flow of a gas that is to be delivered to patients through the respiratory tract. The RTM3 should be connected to a source of pressured gas either using a direct probe or a rail mounting system. It must be fitted at its outlet either with a humidifier/nebulizer or with an outlet tubing nipple.

Main technical features:

Medical device of class IIa.

In compliance with the EN ISO 15002.

Inlet pressure : 4.5 bar +/- 0.5 bar (O₂)
4.5 bar +/- 0.5 bar (Air)

- **Flowmeter with compensated pressure** ensuring perfect flowrate stability and accuracy. The scale working pressure is the same as the pressure of the network so that the scale is not affected by any counter-pressure.
- **New type of "cartridge" knob**, extremely reliable, easy-to-clean and ensuring an optimized adjustment. Perfect tightness of the knob thanks to its polyamide seat.

The knob was tested under pressurized working conditions during more than 10,000 cycles (which corresponds to 5 openings / closings every day during more than 5 years) without showing any leakage after closing. This allows us to guarantee the closing of the knob during 5 years without any leakage.

- **Monoblock scale cover made of polyamide** for a higher sturdiness and a greater safety. The inopportune unscrewing of the monoblock scale cover is not possible. Patients have no access to the scale.
- **Expanded scale** providing higher reading accuracy for low flowrates (only for 05 l/min and 15 l/min RTM3 flowmeters).
- **Filter at the scale inlet** protecting the device against any gas network impurities and thus ensuring the protection of both the patient and the flowmeter.
- Body made of nickel-plated brass, very strong.
- Flowmeter MRI compatible (conditional).
- Normative information (gas name, CE marking, signs related to the use of the device) are mentioned on a self-adhesive ring for a better reading and immediate identification of a TM device. The identification ring is protected against tarnishing and wear & tear thanks to the monoblock cover.
- **A unit serial number is engraved on the body of each flowmeter** ensuring its identification and traceability.

Many versions available:

Available gases & flowrates:

- OXYGEN: 1.5l/min, 5l/min, 15l/min, 30l/min, 70l/min
- MEDICAL AIR: 1.5l/min, 5l/min, 15l/min, 30l/min
- CO₂: 12l/min
- CARBOGEN: 15l/min

- Inlets: 12x100F - 1/4G M - 1/8NPT F - 3/8"BSP F.

- Outlets: 12x125 M → 9/16" M - 1/2"BSP F - 1/4G M.

- Available configurations: Single, Twin and DUO.

- Available connections to the wall outlet: Direct probe or Rail mounting system.

- Standards: AFNOR (French standard) - BS (British standard) - DIN (German standard) - NORDIC (Scandinavian standard) - CZECH (Czech standard) - CARBUROS (Spanish standard) - UNI (Italian standard) - US OHMEDA DIAMOND (American standard) - DISS (American standard) - Korean standard - Japanese standard - SANS/SABS (South African standard).

- Weight (without direct probe): 275 g.

- Dimensions (without direct probe):
Height 145 mm x width 35 mm x depth 70 mm.

Use, cleaning and maintenance:

The RTM3 flowmeter must be connected vertically. Then just open the knob and adjust the position of the floating ball according to the required flowrate (reading in the middle of the ball).

Device to be serviced every annual inspection according to intensive use, if any.

Accessories:

- Tubing nipple (1 part or 2 parts) ①
- Switch or Flow-Switch ②
- Humidifier: CCO model (250 ml) ③





R01-E

RTM3 O₂ 15 l/min mounted with 1/2 BS outlet tubing nipple



R02-E

RTM3 O₂ 05 l/min mounted with DIN direct probe and 250 ml CCO humidifier



R03-E

RTM3 O₂ 15 l/min mounted with DIN complete rail mounting system (neutral) and 9/16" outlet tubing nipple



R04-E

RTM3 O₂ 1.5 l/min mounted with NORDIC complete rail mounting system and 9/16" outlet tubing nipple



R05-E

RTM3 O₂ 15l/min mounted with UNI direct probe and 250ml CCO humidifier

R06-E

Twin RTM3 O₂ 5 – 15 l/min mounted with AFNOR TM CHOC direct probe.



R07-E

RTM3 AIR 05l/min mounted with BS direct probe and 9/16" outlet tubing nipple.



R08-E

RTM3 O₂ 70 l/min mounted with DISS direct probe and 9/16" outlet tubing nipple



R09-E

RTM3 O₂ 70 l/min mounted with clamping vice NIST and 9/16" outlet tubing nipple

RTM3 DUO FLOWMETER

Patented model

Double outlet integrated in the body of the flowmeter:

- ▶ One horizontal outlet tubing nipple;
- ▶ One vertical central threaded outlet to connect a humidifier (outlet thread 12x125 M and 9/16" M available).

Thanks to this DUO system there is no need to screw and unscrew the outlet tubing nipple or the humidifier.

The saving of time is really appreciated compared to a standard flowmeter and the risk of losing the nipple is avoided.

The user can choose between 3 positions and can switch from one position to another without removing the nipple or the humidifier.

- ▶ **1st position:** the gas flow is delivered through the nipple.
- ▶ **2nd position:** the gas flow is cut off. Parking position.
- ▶ **3rd position:** the gas flow goes through the vertical central outlet to which you can connect either a CCO humidifier (250 ml) or any other model (single-use humidifier, nebulizer).

Also available with a complete rail mounting system.



R10-E

RTM3 DUO O₂ 15 l/min with AFNOR TM CHOC direct probe

To convert the standard RTM3 flowmeters into DUO flowmeters the solution is :

TM FLOW-SWITCH OR SWITCH

- ▶ **Flow-Switch: model with ring** (R11-E)
- ▶ **Switch: model with knob** (R12-E)

Both Flow-Switch and Switch can be screwed onto any standard flowmeter. They enable you to deliver a gas flow either through the outlet tubing nipple or through a humidifier.

Available with 12x125 or 9/16" threaded inlet and outlet.



R11-E

R12-E





| AFNOR French Standard | | RTM3 FLOWMETERS WITH FLOATING BALL | | | | | |
|--|---------------------------|------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OXYGEN (O ₂) | Flowrates l/min | Single | Single | Single | Single | Twin | DUO |
| MEDICAL AIR | | 1.5 | 05 | 15 | 30 | 15-15 | 15 |
| Mounted with AFNOR TM CHOC direct probe  | Outlet thread: 12x125M | 17581 X | 14030 13883 | 14038 13891 | 14046 13899 | 14071 13924 | 14078 13928 |
| | With nipple*: 12 x 125 | 17583 X | 14032 13885 | 14040 13893 | 14048 13901 | 14073 13926 | X X |
| | Outlet thread: 9/16" M | 17588 X | 14130 13968 | 14134 13972 | 14138 13976 | 14150 13988 | 14155 - |
| | With nipple*: 9/16" M | 17589 X | 14131 13969 | 14135 13973 | 14139 13977 | 14151 13989 | X X |
| Mounted with AFNOR TM CHOC complete rail mounting system (polycarbonate clamp)  | Outlet thread: 12x125M | 17612 X | 14026 13879 | 14034 13887 | 14042 13895 | 14068 13921 | - - |
| | With nipple*: 12 x 125 | 17614 X | 14028 13881 | 14036 13889 | 14044 13897 | 14070 13923 | X X |
| | Outlet thread: 9/16" M | 17592 X | 14128 13966 | 14132 13970 | 14136 13974 | 14148 13986 | - - |
| | With nipple*: 9/16" M | 17593 X | 14129 13967 | 14133 13971 | 14137 13975 | 14149 13987 | X X |

| BS British Standard | | RTM3 FLOWMETERS WITH FLOATING BALL | | | | | |
|--|---------------------------|------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------|
| OXYGEN (O ₂) | Flowrates l/min | Single | Single | Single | Single | Twin | DUO |
| MEDICAL AIR | | 1.5 | 05 | 15 | 30 | 15-15 | 15 |
| Mounted with BS direct probe  | Outlet thread: 9/16" M | 17594 X | 14398 14278 | 14404 14284 | 14410 14290 | 14424 14304 | 14430 - |
| | With nipple*: 9/16" M | 17595 X | 14399 14279 | 14405 14285 | 14411 14291 | 14425 14305 | X X |
| Mounted with BS complete rail mounting system (polycarbonate clamp)  | Outlet thread: 9/16" M | 17596 X | 14400 14280 | 14406 14286 | 14412 14292 | 14426 14306 | 14431 - |
| | With nipple*: 9/16" M | 17597 X | 14401 14281 | 14407 14287 | 14413 14293 | 14427 14307 | X X |

* Outlet tubing nipple in 2 parts, metal
 - Available upon request only.
 X Not available.

1.2

| DIN German Standard | | RTM3 FLOWMETERS WITH FLOATING BALL | | | | | | |
|--|---------------------------|------------------------------------|--------|--------|--------|--------|-------|-------|
| OXYGEN (O ₂) | | Flowrates l/min | Single | Single | Single | Single | Twin | DUO |
| MEDICAL AIR | | | 1.5 | 05 | 15 | 30 | 15-15 | 15 |
| Mounted with DIN direct probe  | DIN ISO | Outlet thread: 9/16" M | 17598 | 14566 | 14570 | 14574 | 14586 | 14592 |
| | | X | 14494 | 14498 | 14502 | 14514 | - | |
| | With nipple*: 9/16" | 17599 | 14567 | 14571 | 14575 | 14587 | - | |
| | | X | 14495 | 14499 | 14503 | 14515 | X | |
| DIN NEUTRAL | Outlet thread: 9/16" M | - | 18014 | 17154 | - | 17330 | - | |
| Mounted with DIN complete rail mounting system (polycarbonate clamp)  | DIN ISO | Outlet thread: 9/16" M | 17600 | 14568 | 14572 | 14576 | 14588 | 14593 |
| | | X | 14496 | 14500 | 14504 | 14516 | - | |
| | With nipple*: 9/16" | 17601 | 14569 | 14573 | 14577 | 14589 | X | |
| | | X | 14497 | 14501 | 14505 | 14517 | X | |
| | DIN NEUTRAL | Outlet thread: 9/16" M | - | 18013 | 18012 | - | - | - |
| | | X | - | - | - | - | - | |

| US OHMEDA American Standard | | RTM3 FLOWMETERS WITH FLOATING BALL | | | | | | |
|--|---------------------------|------------------------------------|--------|--------|--------|--------|-------|-----|
| OXYGEN (O ₂) | | Flowrates l/min | Single | Single | Single | Single | Twin | DUO |
| MEDICAL AIR / ISO | | | 1.5 | 05 | 15 | 30 | 15-15 | 15 |
| Mounted with US OHMEDA direct probe  | Outlet thread: 9/16" M | - | 14917 | 14921 | 14925 | - | - | |
| | | - | 17997 | 17999 | - | - | - | |
| | X | 14893 | 14897 | 14901 | - | - | | |
| | X | 18001 | 18003 | - | - | - | | |
| With nipple*: 9/16" M | - | 14918 | 14922 | 14926 | - | X | | |
| | X | 14894 | 14898 | 14902 | - | X | | |
| Mounted with US OHMEDA complete rail mounting system (polycarbonate clamp)  | Outlet thread: 9/16" M | - | 14915 | 14919 | 14923 | - | - | |
| | | - | 17996 | 17998 | - | - | - | |
| | X | 14891 | 14895 | 14899 | - | - | | |
| | X | 18000 | 18002 | - | - | - | | |
| | With nipple*: 9/16" M | - | 14916 | 14920 | 14924 | - | X | |
| | | X | 14892 | 14896 | 14900 | - | X | |



* Outlet tubing nipple in 2 parts, metal
 - Available upon request only.
 X Not available.

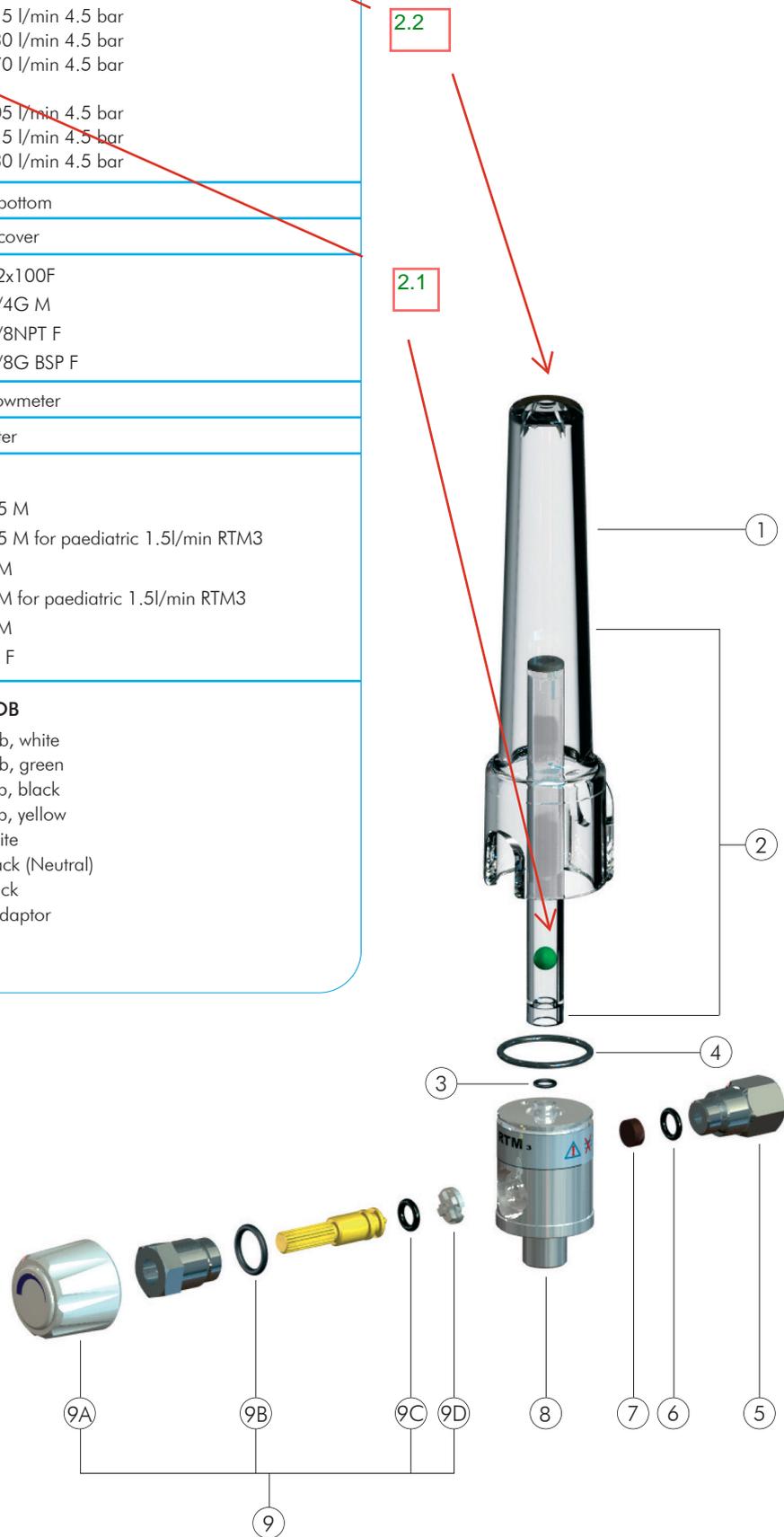


| NORDIC Scandinavian Standard | | RTM3 FLOWMETERS WITH FLOATING BALL | | | | | |
|---|---------------------------|------------------------------------|--------|--------|--------|-------|-----|
| OXYGEN (O ₂) | Flowrates l/min | Single | Single | Single | Single | Twin | DUO |
| MEDICAL AIR | | 1.5 | 05 | 15 | 30 | 15-15 | 15 |
| Mounted with NORDIC direct probe | Outlet thread: 9/16" M | X | 14638 | 14643 | 14648 | - | - |
| | | X | 14611 | 14616 | 14621 | - | - |
|  | With nipple*: 9/16" M | 17609 | 14639 | 14644 | 14649 | - | X |
| | | X | 14612 | 14617 | 14622 | - | X |
| Mounted with NORDIC complete rail mounting system (polycarbonate clamp) | Outlet thread: 9/16" M | 17602 | 14635 | 14640 | 14645 | - | - |
| | | X | 14608 | 14613 | 14618 | - | - |
| | With nipple*: 9/16" M | 17603 | 14637 | 14642 | 14647 | - | X |
| | | X | 14610 | 14615 | 14620 | - | X |

| UNI Italian Standard | | RTM3 FLOWMETERS WITH FLOATING BALL | | | | | |
|---|---------------------------|------------------------------------|--------|--------|--------|-------|-------|
| OXYGEN (O ₂) | Flowrates l/min | Single | Single | Single | Single | Twin | DUO |
| MEDICAL AIR | | 1.5 | 05 | 15 | 30 | 15-15 | 15 |
| Mounted with UNI direct probe | Outlet thread: 1/4G M | X | 14945 | 14949 | 14953 | 17428 | 17431 |
| | | X | 14933 | 14937 | 14941 | - | 17432 |
|  | With nipple*: 1/4G M | X | 14946 | 14950 | 14954 | - | - |
| | | X | 14934 | 14938 | 14942 | - | - |
| Mounted with UNI complete rail mounting system (polycarbonate clamp) | Outlet thread: 9/16" M | 18005 | 18004 | 18006 | 18007 | 18008 | 18009 |
| | | X | - | - | - | - | - |
| | Outlet thread: 1/4G M | X | 14947 | 14951 | 14955 | - | - |
| | | X | 14935 | 14939 | 14943 | - | - |
| | With nipple*: 1/4G M | X | 14948 | 14952 | 14956 | - | - |
| | | X | 14936 | 14940 | 14944 | - | - |
| Outlet thread: 9/16" M | X | - | 18010 | - | - | - | |
| X | - | - | - | - | - | - | |

* Outlet tubing nipple in 2 parts, metal
 - Available upon request only.
 X Not available.

| Reference | | Description |
|--------------------------|---|---|
| 1 | 18783 | Monobloc scale cover in polyamide |
| 2 | O ₂ | COMPLETE SCALE |
| | | 17570 Complete scale 1.5 l/min (paediatric) |
| | | 16968 Complete scale 05 l/min 4.5 bar |
| | | 16969 Complete scale 15 l/min 4.5 bar |
| | | 16970 Complete scale 30 l/min 4.5 bar |
| | 22395 Complete scale 70 l/min 4.5 bar | |
| | AIR | 16965 Complete scale 05 l/min 4.5 bar |
| | | 16966 Complete scale 15 l/min 4.5 bar |
| | | 16967 Complete scale 30 l/min 4.5 bar |
| | | 3 |
| 4 | | 11408 Gasket for scale cover |
| 5 | 11174 Inlet adaptor 12x100F | |
| | 11178 Inlet adaptor 1/4G M | |
| | 11176 Inlet adaptor 1/8NPT F | |
| | 16922 Inlet adaptor 3/8G BSP F | |
| 6 | 11578 Inlet gasket for flowmeter | |
| 7 | 11029 Inlet flowmeter filter | |
| 8 | BODY ONLY | |
| | 11201 Body only 12x125 M | |
| | 17569 Body only 12x125 M for paediatric 1.5l/min RTM3 | |
| | 11205 Body only 9/16" M | |
| | 17568 Body only 9/16" M for paediatric 1.5l/min RTM3 | |
| | 11211 Body only 1/4G M | |
| 11216 Body only 1/2"BS F | | |
| 9 | 9A | COMPLETE KNOB |
| | | 16954 O ₂ complete knob, white |
| | | 19515 O ₂ complete knob, green |
| | | 16955 Air complete knob, black |
| | | 19516 Air complete knob, yellow |
| | | 11198 O ₂ knob only, white |
| | | 17086 O ₂ knob only, black (Neutral) |
| | | 11189 Air knob only, black |
| | | 11684 Gasket for inlet adaptor |
| | | 11234 Knob axis gasket |
| 9B | 11189 Air knob only, black | |
| 9C | 11684 Gasket for inlet adaptor | |
| 9D | 11234 Knob axis gasket | |
| | 11184 Knob seat | |





Also available



Distributed by

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FLOWMETERS WITH
FLOATING BALL



TECHNOLOGIE
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