

01 OXYGEN THERAPY

The line of oxygen therapy devices includes **variable area flowmeters**, **calibrated holes "dial" flowmeters**, **pressure reducers** with their cylinder connections, **humidifiers**, **flow selectors** and all the **accessories** to connect the devices to the oxygen and medical air supply sources in the hospital plants. The large range gives the possibility to select the best solution for the customer needs, allowing the creation of countless combinations meeting the various necessities of use in hospitals, emergency and home care.

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On the following pages you can find simple assembly diagrams illustrating the various possible options, both in the case of connection to the medical gas plants supply points, or in case of connection to medical oxygen cylinders.

DOWNLOAD
OXYGEN THERAPY



The devices are manufactured in full compliance with the main technical regulations, as well as the requirements of Directive 93/42/EEC.




This allows to operate in complete and absolute safety, even in the most extreme conditions of use.

PRODUCTS

EasyFLOW®	VARIABLE AREA FLOWMETERS	14
Qmed®	VARIABLE AREA OXYGEN FLOWMETERS	16
Rs	VARIABLE AREA OXYGEN FLOWMETERS	18
EasyMED® PLUS	CALIBRATES ORIFICES FLOWMETERS	20
EASYMED®	CALIBRATED ORIFICES OXYGEN FLOWMETERS	22
DF	FLOW SELECTOR FOR AEROSOL THERAPY	24
EasyCARE® PLUS	PRESSURE REGULATORS	28
EASYCARE®	PRESSURE REGULATORS	30
FM	PRESSURE REGULATORS FOR OXYGEN THERAPY	32
CH, TR and MAK	OXYGEN THERAPY HUMIDIFIERS	34
EasyOX®	BUBBLING HUMIDIFIERS	36
OXITER®	OXYGEN THERAPY SINGLE-PATIENT HUMIDIFIERS	38
CONNECTIONS AND ACCESSORIES		40
OXYGEN SUPPLY SYSTEM FOR AMBULANCES		46

flowmeters, reusable and single-patient
humidifiers, pressure regulators,
flow selectors and system for ambulances

OXYGEN THERAPY

01	 EasyFLOW® variable area flowmeter	14
02	Qmed® variable area oxygen flowmeter	16
03	Rs variable area oxygen flowmeter	18
04	 EasyMED® PLUS calibrated orifices flowmeter	20
05	EASYMED® calibrated orifices oxygen flowmeter	22
06	DF flow selector for aerosol therapy	24
07	Outlet hose connector, direct fitting	42
08	 EasyOX® bubbling humidifier	36
09	OXITER® oxygen therapy single-patient humidifier	38
10	CH/200 PC oxygen therapy humidifier	34
11	TR/200 PC (or PSU) oxygen therapy humidifier	34
12	MAK/300 PC oxygen therapy humidifier	34
13	MAK/500 PC oxygen therapy humidifier	34

CONNECTIONS AND ACCESSORIES FOR OXYGEN THERAPY DEVICES

A	OXYGEN PROBES WITH THREAD CONNECTION	40
	AFNOR NF-S 90-116	
	AFNOR NF-S 90-116 EASYFIX®	
	UNI 9507	
	BS 5682	
	DIN 13260	
	SS 875 24 30	
	JIS T 7101	
	SANS 1409	
	OHMEDA	
B	OXYGEN PROBES WITH HOSE CONNECTION	41
	AFNOR NF-S 90-116 EASYFIX®	
	UNI 9507	
	BS 5682	
	DIN 13260	
	SS 875 24 30	
	JIS T 7101	
	SANS 1409	
	OHMEDA	
C	RAIL CLAMP BRACKET	42

TERMINAL UNITS AND ACCESSORIES

D	Hose for medical gas (oxygen)	126
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MATCHING FLOWMETERS - CONNECTORS - HUMIDIFIERS





EasyFLOW®

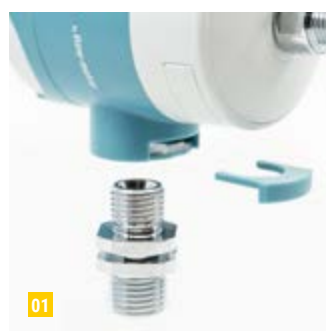
VARIABLE AREA FLOWMETERS

The **EasyFLOW®** flowmeters are instant flow variable area measurement devices for regulating the dosage of medical gases, particularly suitable in oxygen therapy, and offered both in single or twin flowmeter execution to allow double and separate gas flows by using a single medical gas supply.

They are manufactured with an integrated pressure reducer for the supplied pressure stabilization and with an outlet nipple having two connection threads on the two ends for an easy and quick interchangeability. The operators can get two options of outlet thread by simply reversing the nipple, depending on the required applications.

The body is made of impact-resistant polymer with brass chrome-plated fittings, while the precision needle valve having a large ergonomic control knob, a Push&Lock system to keep locked the preset flow value and Soft Grip inserts allows the operator to easily adjust the gas flow at the required value, depending on the kind of therapy. In **EasyFLOW®** flowmeter the measurement tube has a lens effect to get the scale values easy reading in any condition of use.

The I/O switch button allows the operator to quickly lock and reactivate the flowmeter gas supply, keeping unchanged the previous flow preset value. The small size structure and the particular technical configuration allow the **EasyFLOW®** flowmeters to be able to supply flows of medical gas with extreme accuracy, even in the most difficult conditions, while the several options offered can satisfy any kind of use and exigencies.



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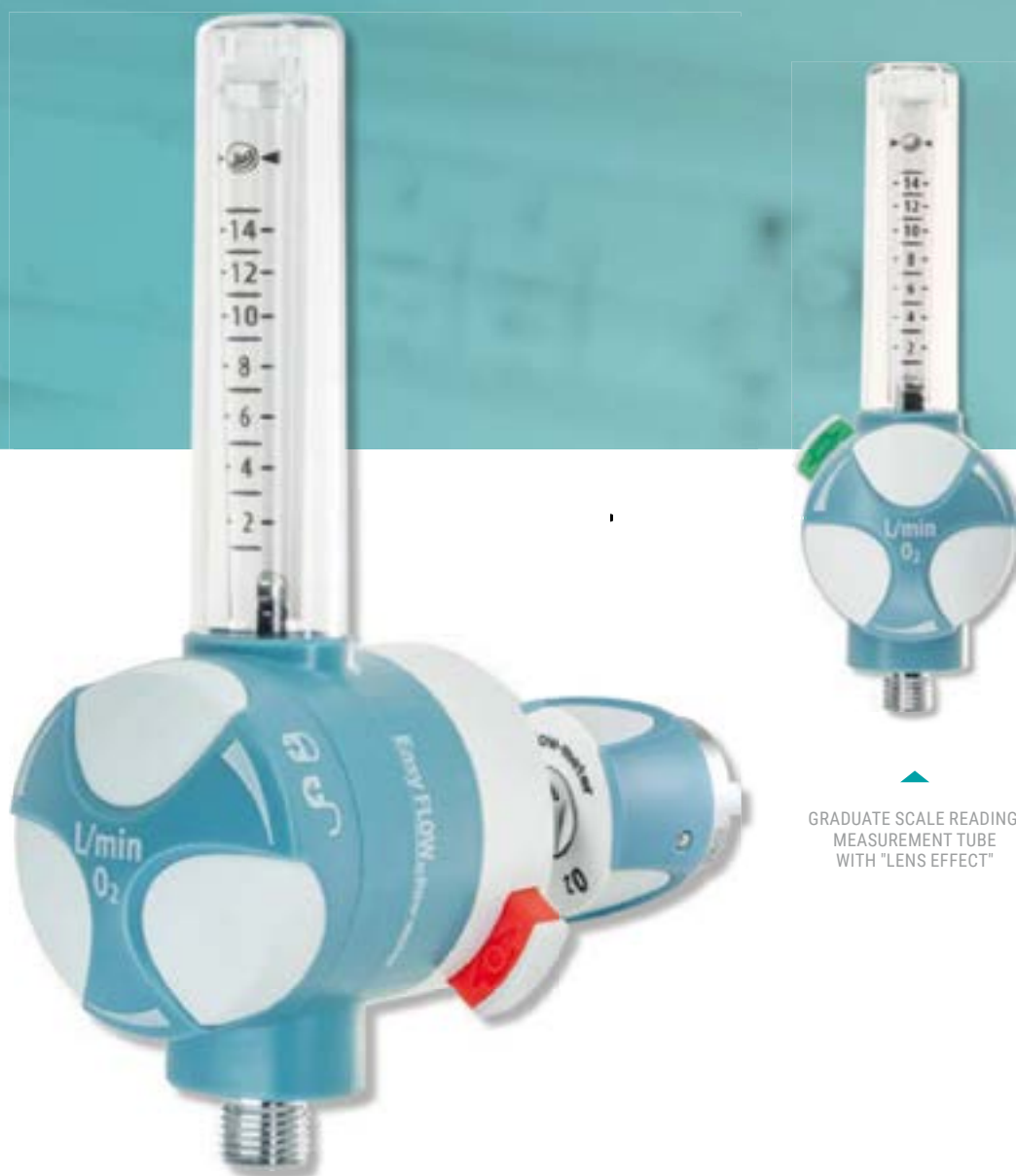


03

01 NIPPLE WITH DOUBLE THREAD,
INTERCHANGEABLE
BY THE END USER

02 I/O SWITCH. QUICK PUSH
SWITCH BUTTON

03 ADJUSTING KNOB
WITH PUSH&LOCK SYSTEM
AND SOFT GRIP INSERTS
FOR EASY HANDLING



GRADUATE SCALE READING,
MEASUREMENT TUBE
WITH "LENS EFFECT"

TECHNICAL SPECIFICATIONS | EasyFLOW®

SIZES (LxWxH)	61x107x175 mm
WEIGHT	0.37 Kg
GAS SUPPLY PRESSURE	280÷600 kPa with an integrated pressure reducer for the stabilization of supplied pressure
GASES OPTIONS	O ₂ • Air
END OF SCALE VALUES	5 L/min. • 10 L/min. • 15 L/min. • 30 L/min. • 40 L/min.
ACCURACY	±10% read value or ±0.5 L/min. (±0.2 L/min. for flows < than 1 L/min.) if greater
STANDARD INLET CONNECTION	ISO G 1/4" M. • 1/4"NPT M.
STANDARD OUTLET CONNECTION	Nipple with double thread, interchangeable by the end user: M12x1.25 M • 1/4" ISO 3253 M. 9/16" UNF EN 13544-2 M • 1/4" ISO 3253 M. M12x1.25 M • 9/16" UNF EN 13544-2 M.
FLOW CALIBRATION DATA	1013 mbar 23 °C



Qmed®

VARIABLE AREA OXYGEN FLOWMETERS

The flowmeters type **Qmed®** are instant flow measuring devices suitable for the dosage of medical gases.

They are manufactured in version with compensated or not compensated pressure and in single or twin configuration in order to allow a double and independent gas supply using a single gas source. The flowmeters type **Qmed®** fit a needle valve with a knob in color code for the immediate identification of the supplied gas. The body is made of aluminium making it extremely light and giving the possibility to obtain different finishing solutions such as chrome-plating or anodising, this last case in different customised colours.

The measure group is made of high resistance polycarbonate, a high mechanical resistance material that, together with the chrome-plated brass nipples and the aluminium body, makes this device ideal for the toughest applications. Moreover the outlet nipple can be easily manually removed and replaced by the operator, to meet any immediate application requirements.

The flowmeters type **Qmed®** are available in different solutions of pressure calibration and medical gases, various options of scale, normal or extended (L version) to allow a better reading of the indicated values and in several configurations of inlet and outlet connections offering a wide range of combinations to fit every application need.



Qmed® twin

CHROME-PLATED ALUMINIUM BODY
TWIN CONSTRUCTION



OUTLET CONNECTION
EASY TO REMOVE AND TO REPLACE



Qmed®

CHROME-PLATED ALUMINIUM BODY
SINGLE CONSTRUCTION



Qmed®

ANODIZED BODY VERSION
AVAILABLE IN DIFFERENT COLOURS

TECHNICAL SPECIFICATIONS | Qmed®

SIZES (LxWxH)	82x33x142 mm
WEIGHT	0.15 Kg
SUPPLY MAX. PRESSURE	600 kPa
STANDARD END OF SCALE VALUES - 400 kPa	1 L/min. • 4 L/min. • 5 L/min. • 10 L/min. • 15 L/min. • 20 L/min. • 30 L/min. • 50 L/min.
ACCURACY	±10% read value or ±0.5 L/min. (±0.2 L/min. for flow < than 1 L/min.) if greater
STANDARD INLET CONNECTION	ISO G 1/8" F. • ISO G 1/4" M. • 1/4"NPT M. • 3/8" ISO 3253 F. • M 12x1 F.
STANDARD OUTLET CONNECTION	1/4" ISO 3253 M. • 3/8" ISO 3253 M. • M 12x1.25 M. • 9/16" UNF EN 13544-2 M.



Rs

VARIABLE AREA OXYGEN FLOWMETERS

The flowmeters type **Rs** are instant flow measuring devices suitable for the dosage of medical gases, in this case oxygen and medical air.

They can be produced in version with pressure compensated or not compensated, and manufactured both with single or twin flow tubes in order to allow a double and independent gas supply using a single gas source. The flowmeters type **Rs** fit a needle valve with a knob in color code for the immediate identification of the supplied gas.

The body is manufactured in chrome-plated brass with metal fittings. The measurement group is made of high resistance polycarbonate, making this device ideal for the toughest applications.

They are also available in different solutions of pressure calibration, various options of scale, normal or extended (L version) to allow a better reading of the indicated values. Several options are proposed concerning the threaded connections, inlet or outlet, offering an endless variety of combinations to meet all application requirements.

The **Rs** flowmeter also offers the possibility to have a flow selector integrated in its body.



Rs twin

CHROME-PLATED BRASS BODY
TWIN CONSTRUCTION



RS ABS KNOB,
OXYGEN COLOR CODE



Rs

CHROME-PLATED BRASS BODY
SINGLE CONSTRUCTION



Rs

RS FLOWMETER WITH INTEGRATED
DF FLOW SELECTOR

➤ DF FLOW SELECTOR, PAGE 24

TECHNICAL SPECIFICATIONS | Rs for oxygen

	Rs	Rs WITH INTEGRATED DF FLOW SELECTOR
SIZES (LxWxH)	80x33x136 mm	82x55x180 mm
WEIGHT	0.24 Kg	0.38 Kg
SUPPLY MAX. PRESSURE	600 kPa	
END OF SCALE VALUES - 350 kPa	1 L/min. • 4 L/min. • 5 L/min. • 10 L/min. • 15 L/min. • 20 L/min. • 30 L/min. • 50 L/min.	
ACCURACY	±10% read value or ±0.5 L/min. (±0.2 L/min. for flow < than 1 L/min.) if greater	
INLET CONNECTION	ISO G 1/8" F. • ISO G 1/4" M. • 1/4"NPT M. • 3/8" ISO 3253 F. • M 12x1 F.	
OUTLET CONNECTION	1/4" ISO 3253 M. • 3/8" ISO 3253 M. • M 12x1.25 M. • 1/2" GAS M. 9/16" UNF EN 13544-2 M. • 1/2" BSF F.	



EasyMED[®] PLUS

CALIBRATED ORIFICES FLOWMETERS

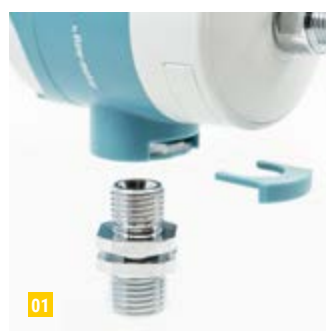
The **EasyMED[®] PLUS** flowmeters are instant flow measurement devices with calibrated orifices for medical gases supply and dosage, particularly suitable in oxygen therapy, offered both in single or twin flowmeter execution to allow double and separate gas flow by using a single medical gas supply source.

They are manufactured with an integrated pressure reducer for the supplied pressure stabilization and with an outlet nipple having two connection threads on the two ends for an easy and quick interchangeability. The operators can get two options of outlet thread by simply reversing the nipple, depending on the required applications.

The body is made of impact-resistant polymer with brass chrome-plated fittings, while a large ergonomic control knob with Soft Grip inserts allows the operator to easily adjust the gas flow among the 10 possible preset options.

The calibration of the gas flow is ensured by orifices got on a metal support with the laser technology. The I/O switch button allows the operator to quickly lock and reactivate the flowmeter gas supply, keeping unchanged the previous flow preset value.

The small size structure and the particular technical configuration allow the **EasyMED[®] PLUS** "dial" flowmeters to be able to supply flows of medical gas with extreme accuracy, even in the most difficult conditions, such as in emergency mobile units. They do not need, compared to conventional variable area flowmeters having vertical indicator, to be always and only used in the upright position.



01



02



03

01 NIPPLE WITH DOUBLE THREAD, INTERCHANGEABLE BY THE END USER

02 I/O SWITCH. QUICK PUSH SWITCH BUTTON

03 ADJUSTING KNOB WITH SOFT GRIP INSERTS FOR EASY HANDLING

REGULATION VALUES FOR THE DIFFERENT END OF SCALE FLOWS

		STEP VALUES									
		0,00	0,25	0,50	1,00	1,50	2,00	3,00	4,00	5,00	6,00
END OF SCALES	6 L/min.	0,00	0,50	1,00	2,00	4,00	6,00	8,00	10,00	12,00	14,00
	14 L/min.	0,00	0,50	1,00	2,00	3,00	4,00	6,00	9,00	12,00	15,00
	15 L/min.	0,00	1,00	2,00	4,00	8,00	12,00	16,00	20,00	25,00	30,00
	30 L/min.	0,00	1,00	2,00	3,00	6,00	9,00	12,00	15,00	30,00	50,00
	50 L/min.	0,00	1,00	2,00	3,00	6,00	9,00	12,00	15,00	30,00	50,00

**TECHNICAL SPECIFICATIONS | EasyMED® PLUS**

SIZES (LxWxH)	61x104x78 mm
WEIGHT	0.19 Kg
GAS SUPPLY PRESSURE	280÷600 kPa with an integrated pressure reducer for the stabilization of supplied pressure
GASES OPTIONS	O ₂ • Air
END OF SCALE VALUES	6 L/min. • 14 L/min. • 15 L/min. • 30 L/min. • 50 L/min.
ACCURACY	±10% read value or ±0.5 L/min. (±0.2 L/min. for flows < than 1 L/min.) if greater
STANDARD INLET CONNECTION	ISO G 1/4" M. • 1/4"NPT M.
STANDARD OUTLET CONNECTION	Nipple with double thread, interchangeable by the end user: M12x1.25 M • 1/4" ISO 3253 M. 9/16" UNF EN 13544-2 M. • 1/4" ISO 3253 M. M12x1.25 M • 9/16" UNF EN 13544-2 M.
FLOW CALIBRATION DATA	1013 mbar 23 °C
FLOW RATES	10 (0+9 preset values)



EASYMED®

CALIBRATED ORIFICES OXYGEN FLOWMETERS

The flowmeters type **EASYMED®** are top-quality instant flow measurement devices with calibrated orifices for regulating the dosage of oxygen and air in medical applications.

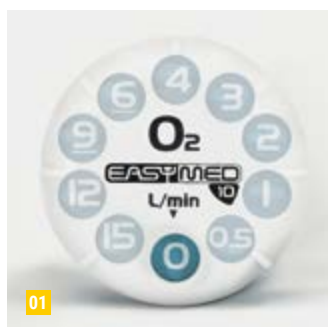
They are manufactured with an integrated pressure reducer for the supplied pressure stabilization and with the outlet fitting with thread adapted to the various required applications.

The body is made of impact-resistant polymer with brass plated fittings, while a large ergonomic control knob allows an operator smooth drive for the selection of the gas supply value among the 10 possible options. The calibration of the flow is ensured by orifices got on a metal support with the laser technology. The small size structure and the particular technical configuration allow the **EASYMED®** "dial" flowmeters to be able to supply flows of medical gas with extreme accuracy even in the most difficult conditions, such as in emergency mobile units.

They do not need, compared to conventional variable area flowmeters having vertical indicator, to be always and only used in the upright position.

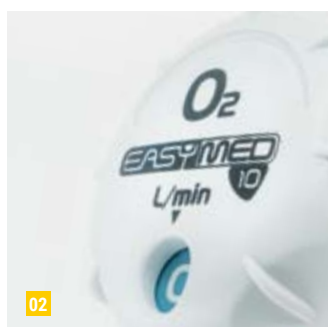


EASYMED® twin



01 FLOW INDICATOR: EASY AND IMMEDIATE READING; TEN READING VALUES, TO IMPROVE LOW FLOWS REGULATION

02 ERGONOMIC KNOB



REGULATION VALUES FOR THE DIFFERENT END OF SCALE FLOWS

		STEP VALUES									
		0,00	0,25	0,50	1,00	1,50	2,00	3,00	4,00	5,00	6,00
END OF SCALES	6 L/min.	0,00	0,50	1,00	2,00	4,00	6,00	8,00	10,00	12,00	14,00
	14 L/min.	0,00	0,50	1,00	2,00	3,00	4,00	6,00	9,00	12,00	15,00
	15 L/min.	0,00	1,00	2,00	4,00	8,00	12,00	16,00	20,00	25,00	30,00
	30 L/min.	0,00	1,00	2,00	3,00	6,00	9,00	12,00	15,00	30,00	50,00
	50 L/min.	0,00	1,00	2,00	3,00	6,00	9,00	12,00	15,00	30,00	50,00



EASYMED®



THE EASYMED® FLOWMETER FITTING A SINGLE-PATIENT HUMIDIFIER AND A PROBE FOR DIRECT CONNECTION ON WALL OUTLET. THE SYSTEM LOOKS COMPACT AND EASY TO HANDLE AND TO USE

► OXITER® OXYGEN THERAPY
SINGLE-PATIENT HUMIDIFIER, PAGE 38

TECHNICAL SPECIFICATIONS | EASYMED®

SIZES (LxWxH)	82x54x65 mm
WEIGHT	0.12 Kg
SUPPLY PRESSURE	280÷600 kPa with integrated pressure regulator for the supplied pressure stabilization
ACCURACY	±10% read value or ±0.5 L/min. (±0.2 L/min. for flow < than 1 L/min.) if greater
STANDARD SUPPLY CONNECTION	ISO G 1/4" M. • 1/4" NPT M.
STANDARD GAS OUTLET CONNECTION	M12x1.25 M • 1/4" ISO 3253 M. • 3/8" ISO 3253 M. • 9/16" UNF EN 13544-2 M.
GASES OPTIONS	O ₂ • Air
STANDARD FULL SCALE FLOW RATE	6 L/min. • 14 L/min. • 15 L/min. • 30 L/min. • 50 L/min.
FLOW RATES	10 (0+9 preset values)
FLOW CALIBRATION DATA	1013 mbar 23 °C



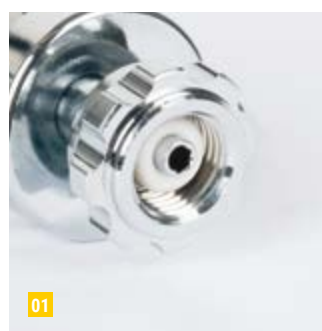
DF

FLOW SELECTOR FOR AEROSOL THERAPY

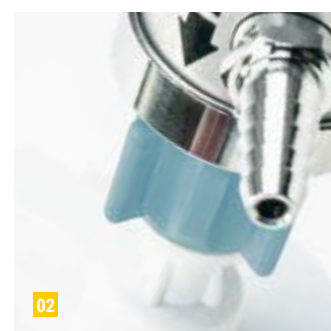
The **DF** flow selector, used in conjunction with **Rs** and **Qmed®** flowmeters, allows to divert the supplied gas through an humidifier or through a hose connector to connect devices used for aerosol therapy.

It fits a threaded ring to connect the flowmeter, while the flow can be easily directed to the humidifier for oxygen therapy, through the axial outlet, otherwise the flow can be diverted through a side hose connector for aerosol therapies.

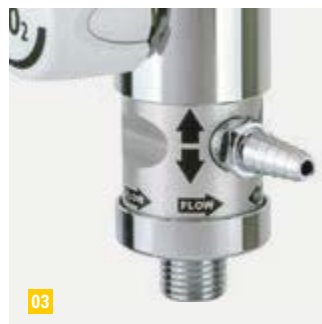
A synoptic printed on the body of the **DF** flow selector helps the operators to easily control the selected flow direction.



01



02



03

01 CONNECTION TO THE FLOWMETERS
WITH DIFFERENT THREADS

02 CONNECTION TO THE HUMIDIFIERS
WITH DIFFERENT THREADS

03 DF FLOW SELECTOR INTEGRATED
IN THE **Rs** FLOWMETER

➤ **OXITER®** OXYGEN THERAPY
SINGLE-PATIENT HUMIDIFIER, PAGE 38


➤ **Rs** VARIABLE AREA
OXYGEN FLOWMETER, PAGE 18




TECHNICAL SPECIFICATIONS | DF

SIZES (LxWxH)	32x54x69 mm
WEIGHT	0.16 Kg
SUPPLY MAX. PRESSURE	500 kPa
MAX. PRESSURE DROP WITH FLOW 15 L/MIN. O₂	9.20 kPa
INLET CONNECTION	1/4" ISO 3253 F. M12x1.25 F. • 9/16" UNF EN 13544-2 F.
OUTLET CONNECTION	1/4" ISO 3253 M. M12x1.25 M. • 9/16" UNF EN 13544-2 M.
HOSE CONNECTOR FOR AEROSOL CIRCUIT	Ø 6÷9 mm
PRESSURE DROP AT THE HUMIDIFIER SIDE WITH FLOW 20 L/min.	17 kPa
PRESSURE DROP AT THE AEROSOL SIDE WITH FLOW 20 L/min.	34 kPa

OXYGEN THERAPY PRESSURE REGULATORS

01	 EasyCARE® PLUS pressure regulator	28
02	EASycARE® pressure regulator	30
03	FM pressure regulator for oxygen therapy	32

OXYGEN THERAPY

04	Qmed® variable area oxygen flowmeter	16
05	Rs variable area oxygen flowmeter	18
06	Flowmeter outlet hose connector	42
07	 EasyOX® bubbling humidifier	36
08	OXITER® oxygen therapy single-patient humidifier	38
09	CH/200 PC oxygen therapy humidifier	34
10	TR/200 PC (or PSU) oxygen therapy humidifier	34
11	MAK/300 PC oxygen therapy humidifier	34
12	MAK/500 PC oxygen therapy humidifier	34

CONNECTIONS AND ACCESSORIES FOR OXYGEN THERAPY DEVICES

E	CYLINDER INLET CONNECTIONS FOR OXYGEN PRESSURE REGULATORS	43
	Pin Index EN 850 (or CGA 870)	
	AFNOR NF-E 29-656	
	DIN 477-1	
	UNI 11144	
	BS 341-3	
	CGA 540	

TERMINAL UNITS AND ACCESSORIES

F	TERMINAL UNITS - COMPONENTS - OUTLETS	115
	AFNOR NF-S 90-116/NF-DS 90-119	
	UNI 9507 NEO	
	BS 5682	
	DIN 13260	
	SS 875 24 30	

DIAGRAM OF OPTIONS

MATCHING PRESSURE REGULATORS - CONNECTIONS - HUMIDIFIERS



EasyCARE® PLUS

PRESSURE REGULATORS

The **EasyCARE® PLUS** two stage pressure regulators are suitable for direct mounting on oxygen and medical air cylinders.

The structure is very compact and lightweight and they are particularly suitable for oxygen therapy. The body is made of brass and aluminium with an integrated calibrated orifices "dial" flowmeter having 10 preset medical gas flow options and it is housed inside a techno polymer shock proof shell to protect the assembly, while a large ergonomic control knob with Soft Grip inserts allows the operator to easily adjust the gas flow between the 10 possible preset options. They are equipped with a preset overpressure safety valve, and can be supplied, as an option, with a terminal unit connected to the first stage chamber which allows to get an additional and separate source of medical gas. The inlet connection is offered in several options, as per the different reference standards of the destination Countries. The outlet is through a nipple having two connection threads on the two ends for an easy and quick interchangeability. The operators can get two options of outlet thread by simply reversing the nipple, depending on the required applications.

The pressure calibration of the individual stages is fixed and a pressure gauge with easy reading colored sections allows to get view continuously of the cylinder gas level, up to minimum allowed. A protective silicone cover and a techno-polymer support prevent gauge damages caused by possible shocks received during transport or use. The gauge tilted position helps in reading even if the regulator is assembled on cylinders having small dimensions. The small size structure and the particular technical configuration allow the **EasyCARE® PLUS** pressure regulators to supply flows of medical gases like oxygen with extreme accuracy, even in the most difficult conditions, such as in mobile units of emergency. In fact, being the integrated flowmeter a calibrated orifices type, there is no need to get it always and only used in the upright position, as required in case of use of pressure regulators fitting conventional variable area flowmeters with vertical reading values scales.

EXCELLENCE IN INNOVATION
BREAKTHROUGH TECHNOLOGY
INTELLIGENT DESIGN



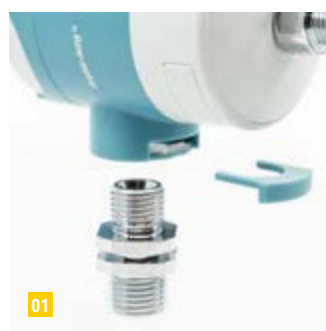
50TH



EASY LINE



DOWNLOAD
THE PRODUCT SHEET



01



02



03



04

01 NIPPLE WITH DOUBLE THREAD, INTERCHANGEABLE BY THE END USER

02 GAUGE WITH EASY READING COLORED SECTIONS TO ALLOW THE CONTINUOUS CONTROL OF THE CYLINDER GAS LEVEL. GAUGE FIT IN TILTED POSITION TO HELP THE GAS LEVEL READING EVEN IF THE REGULATOR IS ASSEMBLED ON CYLINDERS HAVING SMALL DIMENSIONS

03 BIG SIZE KNOB, WITH SOFT GRIP INSERTS FOR EASY HANDLING

04 PROTECTIVE SILICONE COVER AND TECHNO-POLYMER SUPPORT

REGULATION VALUES FOR THE DIFFERENT END OF SCALE FLOWS

		STEP VALUES									
END OF SCALES	6 L/min.	0,00	0,25	0,50	1,00	1,50	2,00	3,00	4,00	5,00	6,00
	14 L/min.	0,00	0,50	1,00	2,00	4,00	6,00	8,00	10,00	12,00	14,00
	15 L/min.	0,00	0,50	1,00	2,00	3,00	4,00	6,00	9,00	12,00	15,00
	30 L/min.	0,00	1,00	2,00	4,00	8,00	12,00	16,00	20,00	25,00	30,00
	50 L/min.	0,00	1,00	2,00	3,00	6,00	9,00	12,00	15,00	30,00	50,00

**TECHNICAL SPECIFICATIONS | EasyCARE® PLUS**

SIZES (LxWxH)	57x160x128 mm (with UNI 11144 cylinder connection and without optional terminal unit)
WEIGHT	0.75 Kg (without optional terminal unit)
MAXIMUM GAS SUPPLY PRESSURE	200 bar
PRESSURE CONTROL GAUGE	315 bar end of scale
END OF SCALE STANDARD FLOW VALUES	6 L/min. • 14 L/min. • 15 L/min. • 30 L/min. • 50 L/min.
FLOW RATES	10 (0+9 preset values)
GASES OPTIONS	O ₂ • AIR
DIAL FLOWMETER ACCURACY	±10% read value or ±0.5 L/min. (±0.2 L/min. for flows < than 1 L/min.) which of the two greater
PRESSURE REDUCER ASSY	double stage with shutter system
FLOW SETTING DATA	1013 mbar 23 °C
INLET CYLINDER CONNECTIONS	UNI 11144 • EN 850 • NF-E 29-656 • BS 341-3 • DIN 477-1 • ISO 5145 • CGA 540 Nipple with double thread, interchangeable by the end user:
OUTLET CONNECTIONS	M12x1.25 M. • 1/4" ISO 3253 M. 9/16" UNF EN 13544-2 M. • 1/4" ISO 3253 M. M12x1.25 M. • 9/16" UNF EN 13544-2 M.
TERMINAL UNIT (OPTIONAL)	AFNOR NF-S 90-116 • UNI 9507 • BS 5682 • DIN 13260 • SS 875 24 30
SUPPLY PRESSURE	360÷550 kPa (with cylinder pressure between 200 and 60 bar and constant flow of 40 L/min. 23 °C)



EASYCARE®

PRESSURE REGULATORS

The **EASYCARE®** two stage pressure regulator is suitable for direct mounting on oxygen cylinders.

The structure is very compact and lightweight and it is particularly suitable for oxygen therapy.

The body is made of brass and chrome-plated aluminum with an integrated impact resistant polymer calibrated orifices flowmeter with 10 options of flow oxygen supply. It is equipped with a pre-calibrated overpressure safety valve, and with a terminal unit (optional) connected to the first stage chamber which allows to get an additional and separate source of oxygen or air supplied at 4 bar.

The inlet connection is offered in several options, as per the different reference standards of the destination Countries, and the outlet too is available with threads adapted to different applications. The pressure calibration of the individual stages is fixed and a pressure gauge allows to get view of the cylinder contents. A protective silicone cover prevents gauge damages caused by possible shocks received during transport or use.

The small size structure and the particular technical configuration allow the **EASYCARE®** pressure reducers to get flows of medical gases like oxygen dispensed with extreme accuracy, even in the most difficult conditions, such as in mobile units of emergency.

In fact, being the integrated flowmeter a calibrated orifices type, there is no need to get it always and only used in the upright position, as required in case of use of pressure regulator fitting conventional variable area flowmeters with vertical indicator.



01



02



03

01 EASY READING OF THE O₂ FLOW;
TEN READING VALUES TO IMPROVE
LOW FLOWS REGULATION

02 DETAIL OF OPTIONAL OUTLET

03 ERGONOMIC KNOB

REGULATION VALUES FOR THE DIFFERENT END OF SCALE FLOWS

		STEP VALUES										
END OF SCALES	6 L/min.	0,00	0,25	0,50	1,00	1,50	2,00	3,00	4,00	5,00	6,00	
	14 L/min.	0,00	0,50	1,00	2,00	4,00	6,00	8,00	10,00	12,00	14,00	
	15 L/min.	0,00	0,50	1,00	2,00	3,00	4,00	6,00	9,00	12,00	15,00	
	30 L/min.	0,00	1,00	2,00	4,00	8,00	12,00	16,00	20,00	25,00	30,00	
	50 L/min.	0,00	1,00	2,00	3,00	6,00	9,00	12,00	15,00	30,00	50,00	



TECHNICAL SPECIFICATIONS | EASYCARE®

SIZES (LxWxH)	147x55x117 mm (with UNI 11144 cylinder connection and without optional terminal unit)
WEIGHT	0.81 Kg (without optional outlet)
MAXIMUM INLET PRESSURE	200 bar
GASES OPTIONS	O ₂ • AIR
STANDARD FLOW RANGE	6 L/min. • 14 L/min. • 15 L/min. • 30 L/min. • 50 L/min.
FLOW RATES	10 (0+9 preset values)
FLOWMETER ACCURACY	±10% read value or ±0.5 L/min. (±0.2 L/min. for flow < than 1 L/min.) if greater
INLET CONNECTION TO THE CYLINDER	UNI 11144 • EN 850 • NF-E 29-656 • BS 341-3 • DIN 477-1 • ISO 5145 • CGA 540
OUTLET CONNECTION	1/4" ISO 3253 M. • 3/8" ISO 3253 M. • M12x1.25 M. • 9/16" UNF EN 13544-2 M.
TERMINAL UNIT (OPTIONAL)	AFNOR NF-S 90-116 • UNI 9507 • BS 5682 • DIN 13260 • SS 875 24 30



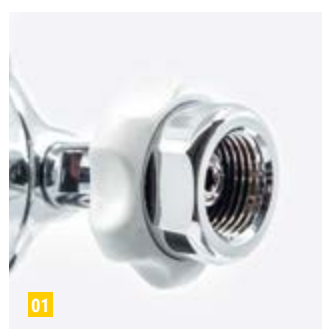
FM

PRESSURE REGULATORS FOR OXYGEN THERAPY

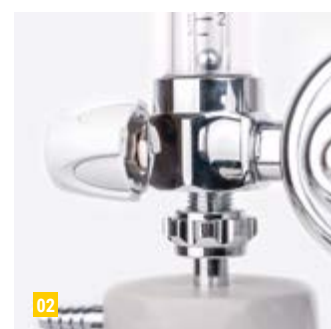
The single-stage **FM** pressure regulators, in their application in oxygen, are suitable for direct mounting on oxygen cylinders.

They are produced with oxygen cylinder connection fitting in the different reference standards of the destination Countries and with a direct connection to a **Rs** series variable area flowmeter. This is supplied in some options regarding the scale reading values and the outlet threads, suitable to connect a humidifier or a simple hose connector. The **FM** pressure regulators are designed for use with preset outlet pressure value.

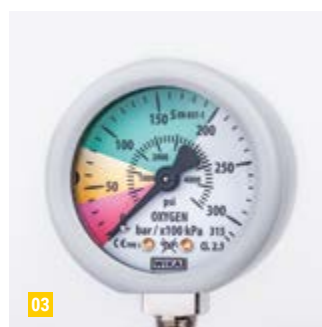
The structure and the fittings are in brass and the pressure relief valve is pre-calibrated, to guarantee protection in case of any system failure. A protective silicone cover prevents gauge damages caused by possible shocks received during transport or use.



01



02



03

01 EXAMPLE OF ONE OF MANY CONNECTIONS TO THE CYLINDER

02 DIRECT CONNECTION TO A Rs FLOWMETER

03 PROTECTIVE SILICONE COVER


TECHNICAL SPECIFICATIONS | FM single gauge for oxygen therapy with humidifier

	MAX. SIZES (LxWxH)	MAX. WEIGHT
VERSION WITH HOSE CONNECTION ON OUTLET	100x178x161 mm	1.24 Kg
VERSION WITH HUMIDIFIER ON OUTLET	108x180x320 mm	1.40 Kg
MAXIMUM INLET PRESSURE	200 bar	
GASES OPTIONS	O ₂ • AIR	
STANDARD FLOW RANGE	5 L/min. • 10 L/min. • 15 L/min. • 30 L/min. • 50 L/min.	
FLOWMETER ACCURACY	±10% read value or ±0.5 L/min. (±0.2 L/min. for flow < than 1 L/min.) if greater	
INLET CONNECTIONS	UNI 11144 • EN 850 • NF-E 29-656 • BS 341-3 • DIN 477- 1 • ISO 5145 • CGA 540	
FLOWMETER OUTLET CONNECTION	1/4" ISO 3253 M. • 3/8" ISO 3253 M. • M12x1.25 M. • 9/16" UNF EN 13544-2 M.	



CH, TR and MAK

OXYGEN THERAPY HUMIDIFIERS

The bubbling humidifiers for oxygen therapy series **CH/200**, **TR/200**, **MAK/300** and **MAK/500** are devices used to increase the relative humidity in the treatments with medical oxygen, both in hospital and at home.

Medical oxygen, as it is normally supplied from hospital plant outlets or cylinders, has not a sufficient degree of humidity to be physiologically tolerated by the patient's airways without collateral consequences. Hence the need to add on oxygen supply devices, such as the flowmeters, suitable devices for the humidification of the gas during dispensing.

Humidifiers for oxygen series **CH/200**, **TR/200**, **MAK/300** and **MAK/500** are manufactured with both the transparent jar and the cover with bubbler in polycarbonate. All fitments are in brass and they can be sterilized in autoclave at 121 °C for 15 min. The model **TR/200** can also be realized in PSU where higher value of sterilization temperature is requested (134 °C - 18 min.). The model **TR/200**, **MAK/300** and **MAK/500** can be equipped with an optional relief valve to avoid the possible over pressure inside the humidifier.

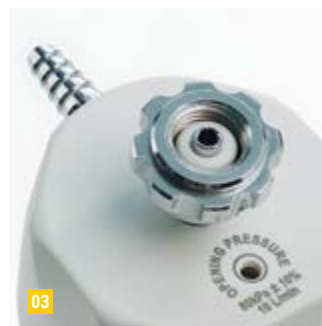
They guarantee, in conjunction with flowmeters **EasyFLOW®**, **Rs**, **Qmed®**, **EASYMED®** and **EasyMED® PLUS**, an easy use and great versatility, combined with an extreme economy. They are supplied in different options of capacity (200 ml, 300 ml and 500 ml) and with optional threads in the input connections, this to satisfy the most varied requirements and needs.



01



02



03

01 DETAIL OF THE BUBBLE DEVICE

02 DETAIL OF THE LID

03 DETAIL OF THE RELIEF VALVE
(OPTIONAL)

TR/200 PSU

THE MODEL **TR/200** CAN ALSO
BE REALIZED IN PSU WHERE
HIGHER VALUE OF STERILIZATION
TEMPERATURE IS REQUESTED
(134 °C - 18 MIN.)



CH/200



TR/200



MAK/300



MAK/500

TECHNICAL SPECIFICATIONS	CH/200	TR/200	MAK/300	MAK/500
INNER MAX. VOLUME	210 ml	120 ml	285 ml	355 ml
SIZES (LxWxH)	55x67x200 mm	60x75x190 mm	70x81x175 mm	70x81x207 mm
WEIGHT	0.11 Kg	0.13 Kg	0.15 Kg	0.16 Kg
MAX. APPLICABLE PRESSURE VALUE	500 kPa			
MAX. APPLICABLE FLOW VALUE	10 L/min.			
INLET CONNECTION	1/4" ISO 3253 F. • 3/8" ISO 3253 F. • M 12x1.25 F. • 9/16" UNF EN 13544-2 F.			
OUTLET CONNECTION	hose connector Ø 6÷9 mm			
RELIEF VALVE (OPTIONAL)	preset at 80 kPa ±10% with a flow equal to 10 L/min.			



EasyOX[®]

BUBBLING HUMIDIFIERS

The bubbling humidifiers for oxygen therapy series **EasyOX[®]** are devices used to increase the relative humidity in the treatments with medical oxygen, both for hospital and homecare applications.

Medical oxygen, normally supplied from hospital plants or from cylinders, is not provided with a sufficient degree of humidity to be physiologically tolerated by the patient's airways without collateral consequences. Hence the need to equip oxygen supply devices, such as the flowmeters, with suitable systems for the gas humidification during therapies.

The humidifiers for oxygen series **EasyOX[®]** are completely made of polycarbonate and they can be sterilized in autoclave at 121 °C for 15 min. The advanced design, the interchangeable snap threaded nut, allowing to fit the device in any situation, and the overall ergonomics make the humidifier **EasyOX[®]** particularly innovative. In conjunction with flowmeters **EasyFLOW[®]**, **Rs**, **Qmed[®]**, **EASYMED[®]** and **EasyMED[®] PLUS**, this humidifier guarantees the operators an easy use and great versatility, combined with an extreme economy.

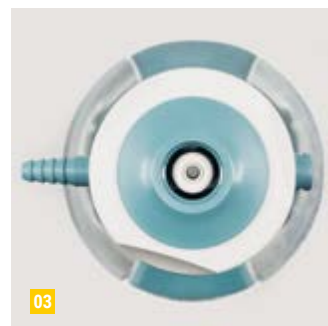
The bottle hollow shape, besides being a design unique element, offers the operator an easy and safe handling and guarantees a higher humidification efficiency.



01



02



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04

01 WITH SNAP INSERT, IDENTIFIED WITH COLOR-CODE, PROVIDED WITH DIFFERENT CONNECTIONS TO BE CHOSEN BY THE END USER

02 OPENING BY QUICK 1/12 TURN TO FACILITATE THE HUMIDIFIER FILLING AND CLEANING PROCEDURES

03 AN ERGONOMIC AND BIG SIZE ROTATING NUT ALLOWS TO EASILY CONNECT AND DISCONNECT THE HUMIDIFIER **EasyOX[®]** TO THE OXYGEN SUPPLY DEVICE. 360° ROLLING POSITIONING HOSE CONNECTOR Ø 6÷9 MM

04 DETAIL OF THE RELIEF VALVE

**TECHNICAL SPECIFICATIONS | EasyOX®**

INNER MAXIMUM VOLUME	190 ml
SIZE (LxWxH)	89x84x161 mm
WEIGHT	0.13 Kg
MAXIMUM APPLICABLE PRESSURE VALUE	80 kPa
MAXIMUM APPLICABLE FLOW VALUE	10 L/min.
INLET CONNECTION	9/16" UNF EN 13544-2 F. • 1/4" ISO 3253 F. M 12x1.25 F. • 3/8" ISO 3253 F.
OUTLET CONNECTION	hose connector Ø 6÷9 mm



OXITER®

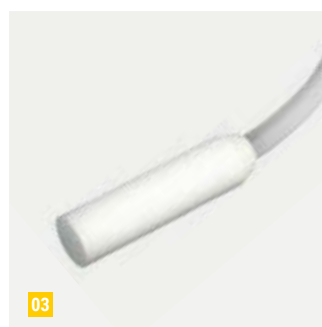
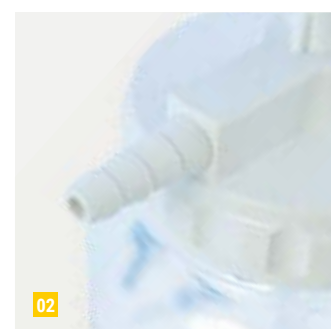
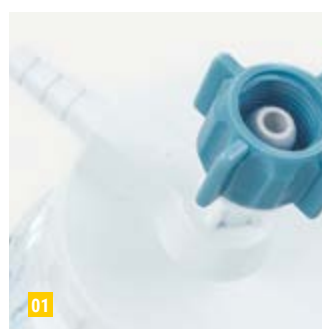
OXYGEN THERAPY SINGLE-PATIENT HUMIDIFIERS

The **OXITER®** bubbling humidifiers are single patient devices used to increase the relative humidity in the treatments with medical oxygen both in hospital and at home.

Medical oxygen, as it is normally supplied from hospital plant outlets or cylinders, has not sufficient degree of humidity to be physiologically tolerated by the patient's airways without collateral consequences. Hence the need to add on oxygen supply devices, such as the flowmeters, suitable devices for the humidification of the gas during dispensing.

The **OXITER®** single-patient bubbling humidifiers are made of a polycarbonate jar and of a cover and remaining structure in ABS. They are supplied in packs of 20 pieces.

The bubbling device guarantees the best supplied oxygen humidification, maintaining a noise level far below the limits of the reference standard (<50 dB at 1 m) and thus giving acceptable comfort to the patient, especially in prolonged respirators treatments. They guarantee, in conjunction with flowmeters **EasyFLOW®**, **Rs**, **Qmed®**, **EASYMED®** and **EasyMED® PLUS**, an easy use and great versatility, combined with an extreme economy.



01 CONNECTIONS: EASY AND INTUITIVE;
A COLOR CODE HIGHLIGHTS THE
MATCH TO DIFFERENT FLOWMETER
OUTLET THREADS

02 SCREW LID DETAIL

03 DETAIL OF THE BUBBLE DEVICE



TECHNICAL SPECIFICATIONS | OXITER®

INNER VOLUME	285 ml
SIZES (LxWxH)	70x83x178 mm
WEIGHT	0.08 Kg
MAX. APPLICABLE PRESSURE VALUE	500 kPa
MAX. APPLICABLE FLOW VALUE	10 L/min.
INLET CONNECTION	1/4" ISO 3253 F. • 9/16" UNF EN 13544-2 F.
OUTLET CONNECTION	hose connector Ø 6÷9 mm
HUMIDIFICATION POWER WITH OXYGEN SUPPLY (RELATIVE HUMIDITY AT 18.7 °C)	
INPUT	14%
OUTPUT	89%
AFTER 2 mt. TUBE Ø 5 mm WITH MASK	73%



CONNECTIONS AND ACCESSORIES

FOR OXYGEN THERAPY DEVICES

The flowmeters for oxygen therapy applications can be supplied completed with probes of our production for direct coupling into the terminal units.

OXYGEN PROBES WITH **THREAD CONNECTION**



AFNOR NF-S 90-116 probe, thread
ISO G. 1/4" F.



AFNOR NF-S 90-116 type **EASYFIX®**
probe, thread ISO G. 1/4" F.



UNI 9507 probe, thread ISO G. 1/4" F.



BS 5682 probe, thread ISO G. 1/4" F.



DIN 13260 probe, thread ISO G. 1/4" F.



SS 875 24 30 probe, thread
ISO G. 1/8" M. or ISO G. 1/4" F.



JIS T 7101 probe, thread ISO G. 1/8" M.



SANS 1409 probe, thread ISO G. 1/4" F.



OHMEDA probe, thread ISO G. 1/8" M.

Otherwise, the pressure regulators are always supplied with special oxygen cylinder connections designed and made according to the various national and international standards. The oxygen flowmeter probes support frequent connections and detachments to the medical gas distribution systems, while the pressure regulators must guarantee perfect sealing

and safety, when connected to the gas cylinders. The following pages contain main information regarding the available range of probes with thread connection and hose connection, for mounting on wall rails or floor stands. The pressure regulators cylinder connections too are available in the most popular options. Detailed or specific solutions are available on request.

OXYGEN PROBES WITH HOSE CONNECTION



AFNOR NF-S 90-116 type **EASYFIX®**
probe, hose connection Ø 6 mm.



UNI 9507 probe, hose connection
Ø 6 mm.



BS 5682 probe, hose connection
Ø 6 mm.



DIN 13260 probe, hose connection
Ø 6 mm.



SS 875 24 30 probe, hose connection
Ø 6 mm.



JIS T 7101 probe, hose connection
Ø 6 mm.



SANS 1409 probe, hose connection
Ø 6 mm.



OHMEDA probe, hose connection
Ø 6 mm.

FLOWMETER OUTLET HOSE CONNECTION

Polypropylene hose connector, three inlet threads (1/4" ISO 3253 F. 9/16" UNF EN 13544-2 F.M12x1.25 F.), outlet tubing Ø 6÷9 mm.
(supplied in packs of 5 pieces)



RAIL CLAMPING SYSTEMS FOR OXYGEN FLOWMETERS



Anodized aluminum clamp bracket for rail 50x10 mm, with nipple threaded ISO G. 1/4" F. and hose connector Ø 6 mm.



ABS clamp bracket for rail 30x10 mm, with nipple threaded ISO G. 1/4" F. and hose connector Ø 6 mm.



Anodized aluminum wedge for OHMEDA rail clamp bracket, with nipple threaded ISO G. 1/4" F. and hose connector Ø 6 mm.



Anodized aluminum OHMEDA rail clamp bracket.

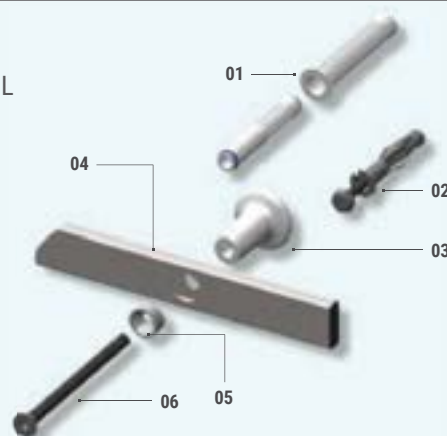
STAINLESS STEEL RAIL



Stainless steel rail 30x10 mm, brushed, with spacers and fittings, various lengths.

DIRECTORY - COMPONENTS DETAIL

- 01. Chemical fixings
- 02. Plasterboard fixings
- 03. Rail spacer
- 04. Rail
- 05. Bolt washer
- 06. Bolt



CYLINDER INLET CONNECTIONS FOR OXYGEN PRESSURE REGULATORS



EN 850 (or CGA 870) "pin-index" yoke cylinder connection.



AFNOR NF-E 29-656 cylinder connection.



DIN 477-1 cylinder connection.



UNI 11144 cylinder connection.

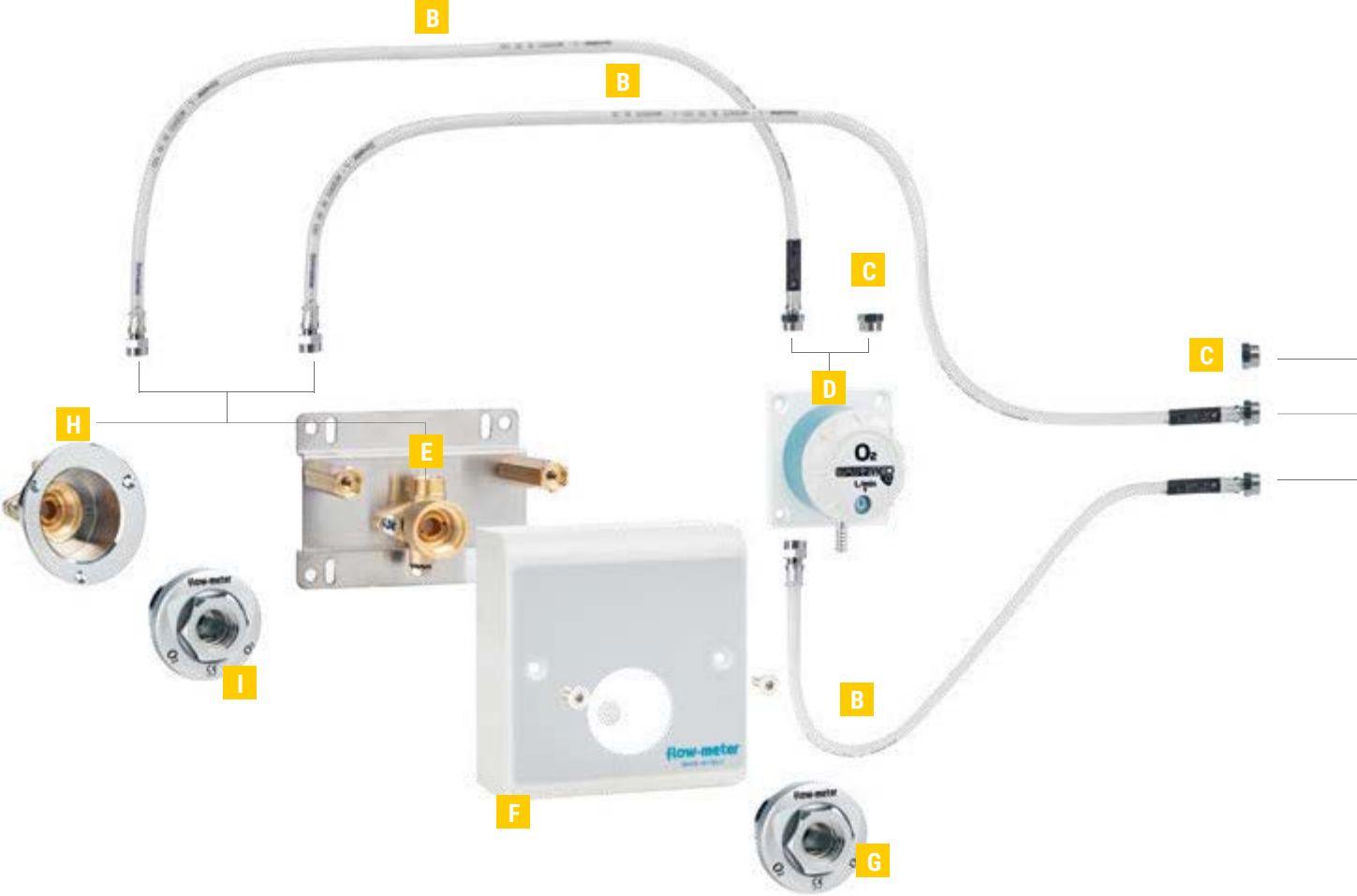


BS 341-3 "bull nose" cylinder connection.



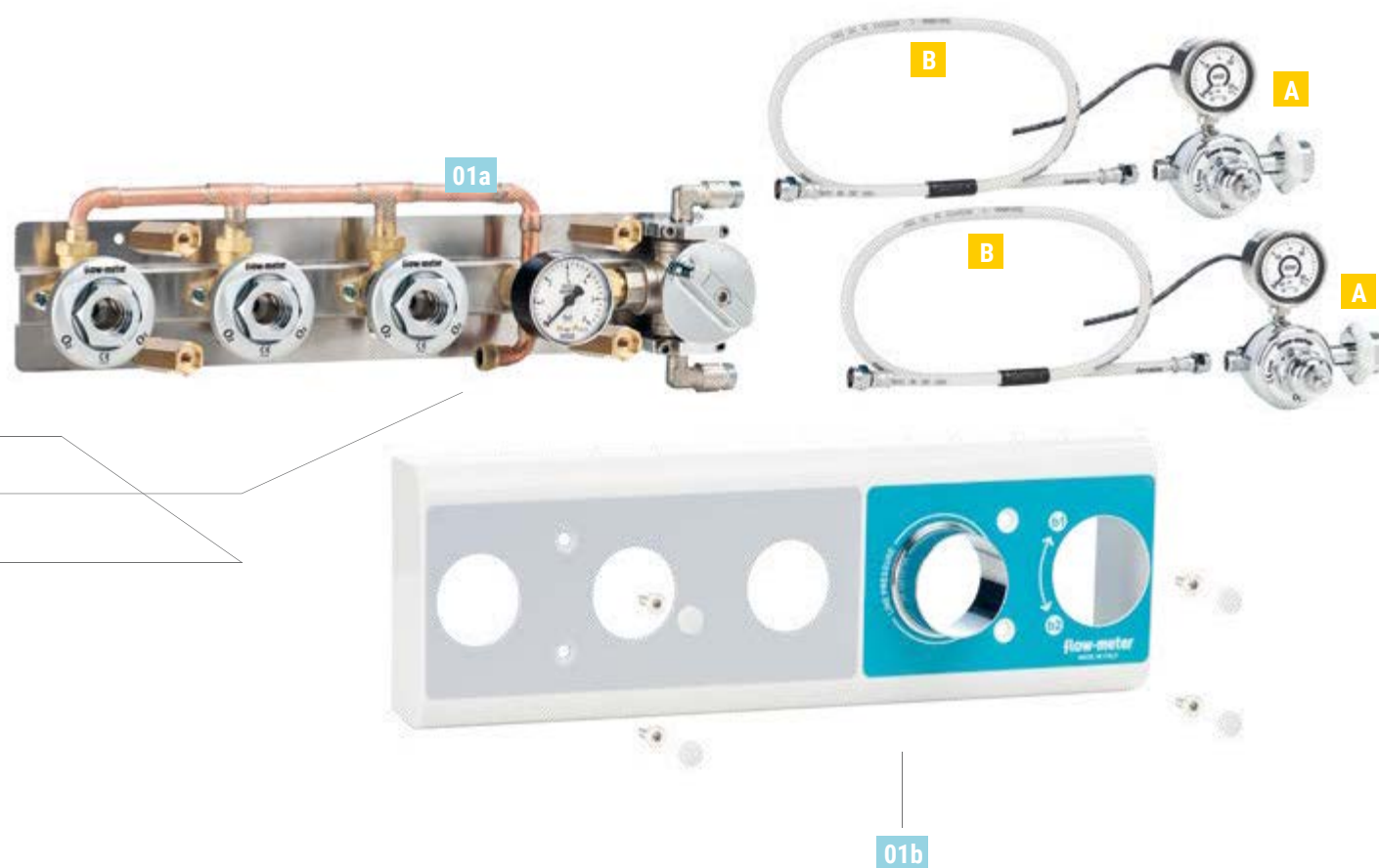
CGA 540 cylinder connection.

DIAGRAM OF OPTIONS
OXYGEN SUPPLY SYSTEM FOR AMBULANCES



OXYGEN SUPPLY SYSTEM FOR AMBULANCES

01a	Oxygen terminal units system for ambulances	46
01b	Stainless steel cover panel	46



CONNECTION AND ACCESSORIES FOR OXYGEN SUPPLY SYSTEM FOR AMBULANCES

A	FM pressure regulator with electrical signal	48-90
B	Low pressure hose for oxygen system for ambulances	48
C	Plug to close the system	48
D	EASYMED® calibrated orifices oxygen flowmeter with panel for ambulances	48
E	Socket for Oxygen Terminal Unit	49-116
F	Surface mounted case with stainless steel cover panel one position	49-114
G	Oxygen outlet	49-115
H	Socket with nut for panel mounting	49-116
I	Oxygen outlet	49-115



OXYGEN SUPPLY SYSTEMS

FOR AMBULANCES

The oxygen supply systems in ambulances allow the oxygen distribution through terminal units granting, moreover, the connection to mobile sources, such as medical gases cylinders, by means of suitable pressure regulators.

They are available in configurations of one, two or three terminal units and with 2 inlets for the connection to the cylinders that can be activated separately by a selector. Different devices necessary for ventilation therapies or for general medical applications and fitted with proper quick probes can be connected to the terminal units, available in different standards.

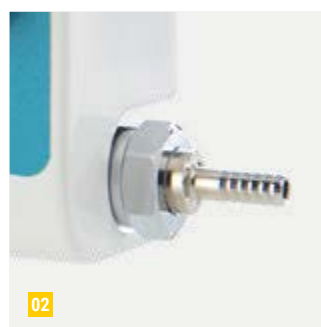
The O₂ supply systems for ambulances mainly consist of:

- a stainless steel bottom support with holes for wall fixing;
- a selector enabling the operator to switch the supply source normally consisting in a medical gas cylinder fitted with pressure regulator;
- a copper pipe, bent and welded with cadmium free silver alloy. The copper pipe is a Class II A medical device, CE marked according to 93/42/EEC Directive and following amendments and conforming to the specifications of the UNI EN 13348 standards;
- one or more oxygen terminal units. These terminal units are designed and manufactured according to the different standards and they are safe and simple to use for the operator. The terminal units are Class II B medical devices, CE marked according to 93/42/EEC Directive and following amendments and conforming to the specifications of the referenced standards;
- a gauge for the control of the line pressure, to grant the correct performance of the system and the oxygen supply continuity;
- two nipples with gas-specific threads to univocally connect the supply by means of low pressure hose assemblies properly banded and conforming to the specifications of UNI EN ISO 5359 standards (optional);
- a painted stainless steel cover panel with mounting fittings (optional).



01

01 STAINLESS STEEL BOTTOM
SUPPORT WITH HOLES
FOR WALL FIXING



02

02 NIPPLES WITH GAS-SPECIFIC
THREADS TO UNIVOCALLY CONNECT
THE SUPPLY BY MEANS
OF LOW PRESSURE HOSE
ASSEMBLIES PROPERLY BANDED
AND CONFORMING TO THE
SPECIFICATIONS OF UNI EN ISO 5359
STANDARDS (OPTIONAL)





TECHNICAL SPECIFICATIONS | O₂ supply system for ambulances

SIZES (LxWxH)	1 terminal unit version:	87.5x270x130 mm
	2 terminal units version:	87.5x355x130 mm
	3 terminal units version:	87.5x440x130 mm
WORKING PRESSURE	4.0 bar ±20%	
SUPPLY GAS	oxygen	
LINE PRESSURE CONTROL GAUGE	end of scale 6.0 bar diam. 50 mm. Cl. 2.5	
SUPPLY CONNECTIONS	thread M16x1.25 M. (UNI 9507)	
TERMINAL UNITS STANDARDS	AFNOR NF-S 90-116 • UNI 9507 • BS 5682 • DIN 13260 • SS 875 24 30	

OXYGEN SUPPLY SYSTEM FOR AMBULANCES | ACCESSORIES FOR AMBULANCE SYSTEM



FM - Pressure regulator with special gauge for ambulances.

TECHNICAL SPECIFICATIONS	
GASES OPTIONS	Oxygen
GAUGE ELECTRICAL FINAL	4-20 mA or 0.5-4.5 V output
OUTLET CONNECTOR	hose connector with gas specific rotating nut

A special version, made for ambulances applications, fits a pressure gauge with electric signal 4-20 mA or 0.5-4.5 V output for the continuous monitoring of the supplied pressure and with system control panel interface.



EASYMED® - Calibrated orifices Oxygen flowmeter complete with panel for ambulances supplied with mounting fittings. The flowmeter is manufactured with an integrated pressure reducer for the supplied pressure stabilization. It has also a flow indicator with 10 possible options and it is available with different end of scales.

REGULATION VALUES FOR THE DIFFERENT END OF SCALE FLOWS

		STEP VALUES									
END OF SCALES	6 L/min.	0,00	0,25	0,50	1,00	1,50	2,00	3,00	4,00	5,00	6,00
	14 L/min.	0,00	0,50	1,00	2,00	4,00	6,00	8,00	10,00	12,00	14,00
	15 L/min.	0,00	0,50	1,00	2,00	3,00	4,00	6,00	9,00	12,00	15,00
	30 L/min.	0,00	1,00	2,00	4,00	8,00	12,00	16,00	20,00	25,00	30,00
	50 L/min.	0,00	1,00	2,00	3,00	6,00	9,00	12,00	15,00	30,00	50,00



FLOW INDICATOR: EASY AND IMMEDIATE READING; TEN READING VALUES, TO IMPROVE LOW FLOWS REGULATION



LOW PRESSURE HOSES FOR OXYGEN with gas specific connection to the ambulance system and available with following lengths:
0.75 m - 1.5 m - 2.5 m - 4.5 m



PLUG with gas specific thread to close the system.



SURFACE MOUNTED CASE with stainless steel cover panel one position for housing **AFNOR NF-S 90-116**, **UNI 9507**, **DIN 13260**, **BS 5682**, **SS 875 24 30** outlets.

► TECHNICAL DETAILS ON PAGE 114



OXYGEN SOCKET for:

- 01. panel mounting with gas specific thread available for **AFNOR NF-S 90-116** and **UNI 9507** outlets only.
- 02. **AFNOR NF-S 90-116** and **UNI 9507** outlets with gas specific thread, complete with nut and copper welding tube nipple.
- 03. **DIN 13260**, **BS 5682**, **SS 875 24 30** outlets.



OXYGEN OUTLET type:

- 01. **AFNOR NF-S 90-116** with gas specific thread **UNI 9507**
- 02. **UNI 9507** with gas specific thread **UNI 9507**
- 03. **DIN 13260**
- 04. **BS 5682**
- 05. **SS 875 24 30**



GAS IDENTIFICATION LABELS suitable for fitting on surface mounted case for:

- 01. **AFNOR NF-S 90-116**
- 02. **DIN 13260**, **BS 5682**, **SS 875 24 30**