CATALOGUE CENTRAL GAS SUPPLY SYSTEMS FOR MEDICAL GASES

GCE druva®

THE GCE BUSINESS

GCE has almost 100 years of experience in the manufacture and supply of high pressure gas equipment. During this time the GCE product range has increased dramatically. Today´s product portfolio fits a large variety of applications, from simple pressure regulators and blowpipes for cutting and welding to highly sophisticated gas supply systems for the medical, electronic and analytical industries.

GCE GROUP INCLUDES FOUR BUSINESS AREAS:

- Cutting & Welding Technologies
- Valves
- Healthcare
- Druva

ORIGINS

The origins of GCE (Gas Control Equipment) go back to the start of the 20th century when Gas Welding was first invented. The GCE group was formed as an independent company in 1987 through the merging of two of the worlds leading gas and welding companies into one independent unit. GCE has grown rapidly since its establishment and is leading the restructuring of the European gas equipment industry through mergers and acquisitions.
Through its extensive Research and Development programs GCE has set standards that have become the benchmark for the whole industry.

GCE SERVICES

The main industrial customers for GCE are wholesalers and local distributors. However in some markets GCE distributes equipment with the full cooperation of the main gas supplier for that market. For these companies GCE provides both commercial and technical support.
A significant part of the sales volume in this area also comes from key end user accounts such as shipyards, repair shops, OEM customers and welding machine manufacturers.

GCE DRUVA

Specialty, industrial and fuel gases are used in various industries to initiate, stabilize and avoid chemical processes and to supply the energy need for industrial processes. These gases are often provided in highly purified form and have either flammable, toxic or corrosive properties and therefore require specific gas-regulating equipment that is leak-proof and corrosion-resistant and thus does not affect the purity, chemical properties or composition of the given gas. Pressure regulators and valves must ensure safe discharge and transportation of gases without posing any risk to users, devices or buildings. The equipment often has to withstand inlet pressures of several hundred bars and must meet the highest expectations for flow and pressure stability.

Specialty-gas regulators and valves are produced from materials such as stainless steel, brass or other metallic alloys. Proper surface treatment and coating, leak-proof connection technology and gas-resistant seals are the key elements of specialty-gas systems. These systems discharge gas locally or distribute it through pipelines to points of use in facilities and laboratories operating in the chemical, petrochemical, pharmaceutical and other industries.

GCE Druva has been a leader in field of specialty-gas equipment since 1967. With production and service centres in Germany, the Czech Republic and China, GCE's High Purity Division is one of the market leaders in providing system components, solutions and services for specialty, high-purity and fuel gases to engineers, designers, distributors and end-users in all corners of the globe.

CONTENT

GAS MANIFOLDS AND STABILIZERS

GAS MANIFOLD MC25

The gas cylinder manifold MC25 has a capacity of 25 m³/h and is primarily intended for small and medium-sized hospitals. The gas cylinder pressure is regulated in two steps. The change-over between operating side and reserve side is made automatically without any differences in the operating pressure.

The alarm signal comes from the pressure switches to the alarm unit.

The alarm signals from the alarm unit can be forwarded directly to a monitoring desk. Function control and service can be carried out without interruption in the gas supply.

SPECIFICATION

MC25 INCLUDES THE FOLLOWING COMPONENTS:

> Gas manifold MC25
> Gas alarm including power supply
> Evacuating kits for collecting pipe
> Shut-off valve for distribution line
> HP filters
> Collecting pipe for 2×1 cylinder

FOR A COMPLETE MC25 MANIFOLD ADD:

> High pressure collecting pipe set (high pressure valves, filters and non-return valves)
> High pressure hoses with safety wire
> Cylinder retaining brackets (included in gas cylinder collecting pipe set)
> Gas name sign

(For more information, please see accessories pages 16–20)

Item No.	Denomination	Gas	PRV	Alarm
0727315	MC25 – 2×1	O_2	Manual activation	C44
0727316	MC25 – 2×1	Air	Manual activation	C44
0727317	MC25 – 2×1	N_2O, CO_2	Manual activation	C44

TECHNICAL DATA	
Gases:	O_2, Air, N_2, N_2O, CO_2, (all medical gases)
Nominal flow:	25 m³/h
Inlet nominal pressure:	200 bar (20 000 kPa)
Outlet nominal pressure:	4,5 bar (setting range 0,5–6 bar)
Intermediate nominal pressure:	12 bar (setting range 9–16 bar)
Inlet connection:	W21,8×1/14"M
Outlet connection:	G1/2"M + soldering piece pipe ø 10, ø 15 mm
Outlet pressure relieve valve:	6,8 bar
Intermediate pressure relieve valve:	17 bar
Pressure relieve valve pipe dimension:	ø 15 mm
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

450

485

Note!
Measurements in mm.

FLOW CHARTS OF MANIFOLD MC25 PRESSURE CHARACTERISTIC
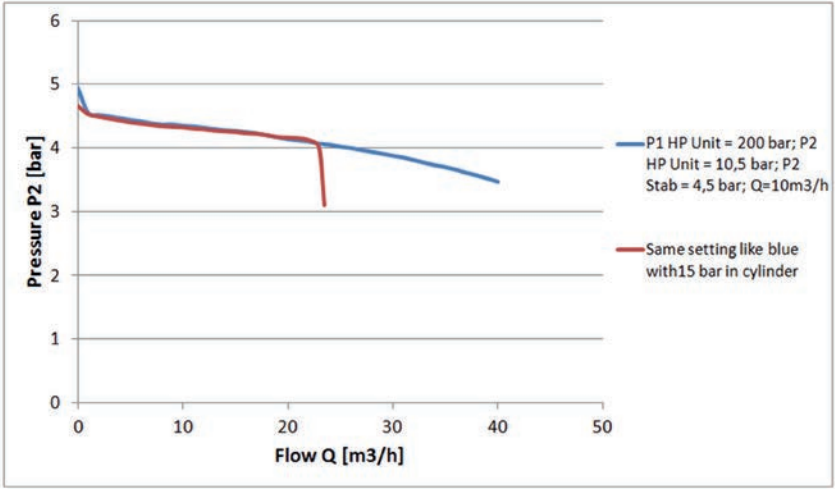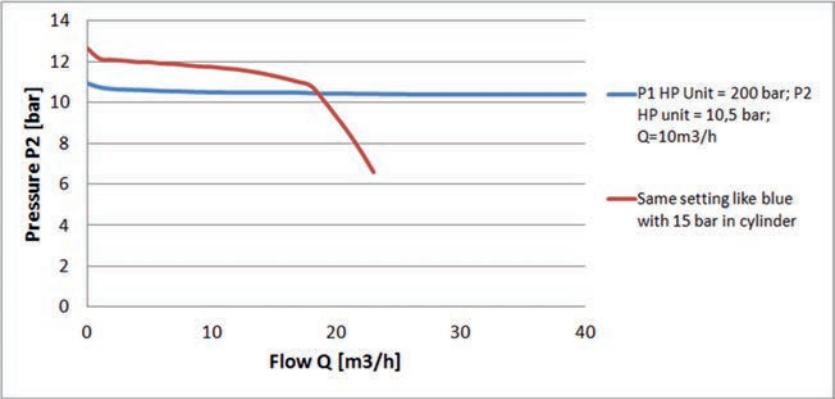
GAS MANIFOLD MM40 - HP UNIT

Manifold MM40 HP unit is an automatic manifold. It is working on the principal of different pressures between the operation and reserve regulator. By the manual lever, the operator can decide which side will be the operational side and which will be the reserve side. When the operating side is empty, the manifold will without any action start to supply gas from the reserve side with the lower regulator pressure and fulfilll the requests to supply without interrupting the flow.

MM40 HP unit manifolds together with a stabilizer should be used as second and third source of gas in systems with liquid gas tank. For hospitals without liquid gas tanks it is possible to use manifold MM40 HP unit together with a stabilizer as first and second source, and in connection with a third source (MM90 Standby) it will provide a final solution to fulfill ISO 7396-1 and national installation standards.

Manifolds are supplied with an alarm system which increases safety to maximal level and informs the hospital personal about each non standard situation.

Gas Alarm C44 is a standard accessory. The gas alarm C44 gives visual and audible indications.

It acts as a surveillance system and sounds the alarm when the following happens:

1. Leaking reserve side
2. Empty position (High/Low distribution pressure when connected to a Stabilizer)
3. Change operation side
4. High intermediate pressure
> The gas alarm C44 is able to communicate with other equipment through relays.
> The alarm has a battery back-up for 30 minutes of operation.
> Manifold MM40 HP unit is only first stage of regulation and must be installed together with a Stabilizer which will stabilize the final pressure used in the hospital gas outlets.
> GCE medical manifolds are CE-marked and fulfill the ISO 7396-1 standard.

SPECIFICATION

MM40 INCLUDES THE FOLLOWING COMPONENTS:
> MM40 HP unit Manifold
> Gas alarm C44
> Purge valves
> HP filters
> Shut-off valve for distribution line to stabilizer

FOR A COMPLETE MM40 HP UNIT MANIFOLD ADD:
> Collecting pipe set (high pressure valves, non-return valves and high pressure components)
> Cylinder retaining brackets (included in gas cylinder collecting pipe set)
> High pressure hoses with safety wire
> Plug for close collecting pipeline
> Gas name sign
> Stabilizer

(For more information, please see accessories pages 16–20)

Item No.	Denomination	Gas	PRV	Alarm
0727330	MM40 – HP unit 2×1	O_2, Air, N_2	Standard	C44
0727331	MM40 – HP unit 2×1	O_2, Air, N_2	Manual activation	C44
0727334*	MM40 – HP unit 2×1	O_2, Air, N_2, N_2O, CO_2	Standard	–
0727335	MM40 – HP unit 2×1	N_2O, CO_2	Standard	C44
0727336	MM40 – HP unit 2×1	N_2O, CO_2	Manual activation	C44

*basic version without electric sensors

TECHNICAL DATA	
Gases:	O_2, Air, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	40 m^3/h
Inlet nominal pressure:	200 bar
Outlet nominal pressure:	12 bar (setting range 9–16 bar)
Inlet connection:	W21,8×1/14"M
Outlet connection:	G1/2"M + soldering piece pipe ø 10, ø 15 mm
Pressure relieve valve:	17 bar
Pressure relieve valve pipe dimension:	ø 10 mm
Purge valves connection:	W21,8×1/14"M
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

FLOW CHART OF MANIFOLD MM40 PRESSURE CHARACTERISTIC
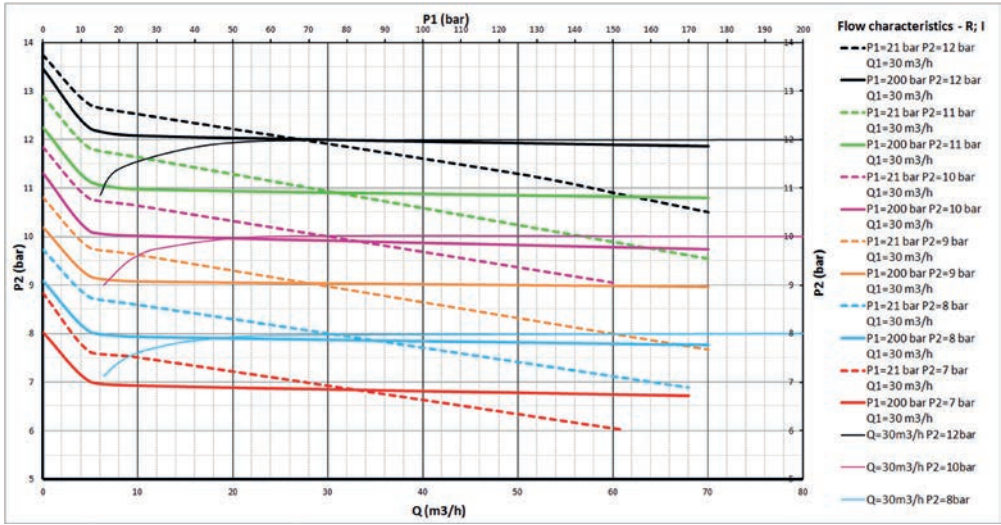
BASIC DIMENSIONS
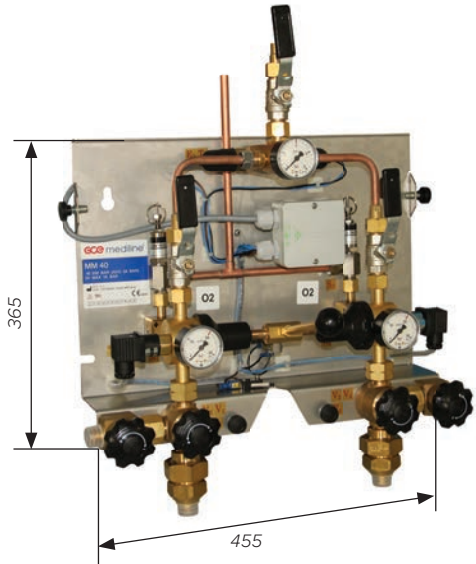
Note!
Measurements in mm.

LINE REGULATOR

A stabilizer is a pressure reduction unit with the task to equalize the eventual pressure variation in the hospital pipeline system to ensure a correct pressure from the terminal units.

The stabilizer makes it possible to distribute gas with a different pressure to departments and buildings in the hospital area. In some cases it is needed to deliver a higher pressure from the main gas manifold to compensate for small pipe dimensions. In those cases the Stabilizer should be mounted as close as possible before the first terminal unit, to ensure a correct pressure to the patient.

SPECIFICATION

LINE REGULATOR INCLUDES THE FOLLOWING COMPONENTS:

> Line regulator

FOR A COMPLETE LINE REGULATOR ADD:

> Plastic cover for locking

> Alarm unit (included if ordered together with HP unit)

Item No.	Denomination	Gas type	Inlet*
0727333	LINE REG	O_2, N_2O, Air, CO_2, N_2	LH
K141621	LINE REG	O_2 – AFNOR	LH
K141631	LINE REG	O_2 – AFNOR	RH
K141622	LINE REG	N_2O – AFNOR	LH
K141632	LINE REG	N_2O – AFNOR	RH
K141623	LINE REG	Air – AFNOR	LH
K141633	LINE REG	Air – AFNOR	RH
K141629	LINE REG	Air-800 – AFNOR	LH
K141639	LINE REG	Air-800 – AFNOR	RH
K141624	LINE REG	N_2 – AFNOR	LH
K141625	LINE REG	CO_2 – AFNOR	LH

LH = inlet from left side; RH = inlet from right side

TECHNICAL DATA	
Gases:	O_2, Air, Air–800, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	40 m³/h
Inlet nominal pressure:	16 bar (1600 kPa)
Outlet nominal pressure:	4,5 bar (setting range 0,5–10 bar)
Inlet connection:	G1/2"M + soldering piece pipe ø 12 mm
Outlet connection:	G1/2"M + soldering piece pipe ø 12 mm
Pressure sensors:	Optional (Pressure switches; Transmitters 0–50 mV; 4–20 mA)
Emergency QC inlet:	Optional QC by national standards
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present HTM 02-01

BASIC DIMENSIONS

206

151

83

Note!
Measurements in mm.
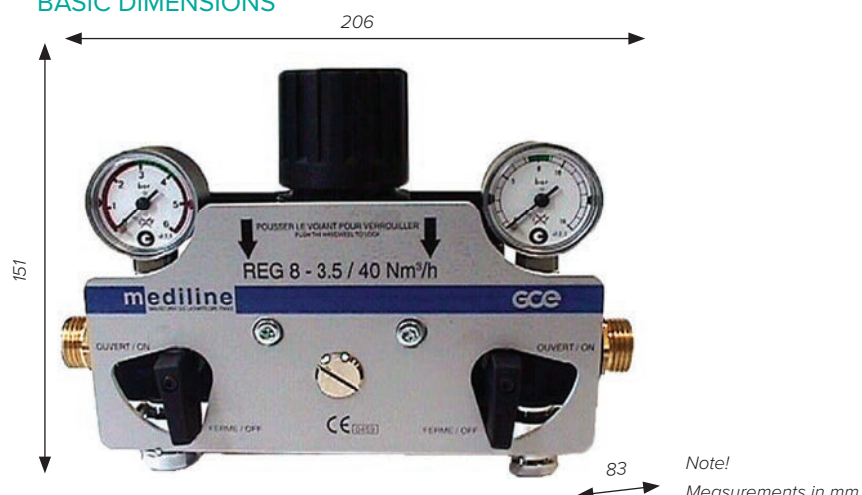
GAS MANIFOLD MM40 – STABILIZER

Manifold MM40 – STABILIZER is a second stage pressure reduction unit with the task to equalize the eventual pressure variation in the hospital pipeline system to ensure a correct pressure from the terminal units.

MM40 – STABILIZER is only a second stage reduction unit where the primary gas supply is provided by high pressure gas manifolds (such as MM40 – HP Unit). In case of a signal for pressure deviation in relation to the alarm settings, the alarm can easily be displayed on a gas alarm unit. It is also possible to send information to the central operation control. The stabilizer can be delivered with either pressure transmitter 4–20 mA, pressure transmitter 0–50 mV or with pressure switches. Gas reduction unit MM40 – STABILIZER must always be installed in compliance with the standards EN ISO 7396-1 and the appropriate national standards.

SPECIFICATION

MM40 STABILIZER INCLUDES THE FOLLOWING COMPONENTS:

> MM40 Stabilizer Manifold

FOR A COMPLETE MM40 STABILIZER MANIFOLD ADD:

> Plastic cover for locking

> Alarm unit (included if ordered together with HP unit)

Item No.	Denomination	Gas	PRV	Alarm
0727329	MM40 – Stabilizer	O_2, N_2O, Air, CO_2, N_2	–	–
0727337	MM40 – Stabilizer	Air–800	–	–
0727332	MM40 – Stabilizer	O2, N2O, Air, CO2, N2	Manual Activation	Pressure switch
0727344	MM40 – Stabilizer	O2, N2O, Air, CO2, N2	Manual Activation	4-20mA

ACCESSORIES

Item No.	Denomination
COM001002	Lockable cover

TECHNICAL DATA	
Gases:	O_2, Air, Air–800, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	40 m^3/h
Inlet maximal pressure:	20 bar (2000 kPa)
Outlet nominal pressure:	4,5 bar (setting range 0,5–10 bar)
Inlet connection 1:	G1/2"M + soldering piece pipe ø 12 mm
Inlet connection 2:	Optional (G1/2"M + soldering piece pipe ø 12 mm)
Outlet connection:	G1/2"M + soldering piece pipe ø 12 mm
Pressure relieve valve:	Optional (6,8 bar; outlet pipe ø 15 mm)
Pressure sensors:	Optional (Pressure switches; Transmitters 0–50 mV; 4–20 mA)
Emergency QC inlet:	Optional QC by national standards
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

230

290

110

Note!
Measurements in mm.

GAS MANIFOLD MM90 - HP UNIT FULLY AUTOMATIC

The MM90 HP unit medical manifold is intended for use in hospital pipeline systems as medical gas source. Together with MM90, always use an alarm providing all alarms according to standard (like gas alarm C44). As 2nd stage is recommended to use a stabilizer. The manifold will deliver gas from the operating bank to the manifold pressure regulator until the cylinders are exhausted. At that point the supply will switch to the reserve bank and the empty bank can be replenished. The object gives uninterrupted gas supply. Gas Alarm C44 is a standard accessory. The gas alarm C44 gives visual and audible indication.
It surveils and the alarm sounds when the following happens:

1. Change operation side/Leaking on reserve side
2. High operation pressure
3. Low operation pressure
4. Empty position (High/Low distribution pressure when connected to a Stabilizer)

The gas alarm C44 is able to communicate with other equipment through relays.
The alarm has a battery back-up for 30 minutes of operation.

SPECIFICATION

MM90 INCLUDES THE FOLLOWING COMPONENTS:

> MM90 HP unit Manifold
> Gas alarm C44
> Purge valves
> HP filters

FOR A COMPLETE MM90 HP UNIT MANIFOLD ADD:

> Collecting pipe set (high pressure valves, and non-return valves / high pressure components)
> Cylinder retaining brackets (included in gas cylinder collecting pipe set)
> High pressure hoses with safety wire
> Plug for close collecting pipeline
> Gas name sign
> Stabilizer

(For more information, please see accessories pages 16–20)

Item No.	Denomination	Gas	PRV	Alarm
0727301	MM90 – HP unit AUTO 2×1	O_2	Standard	C44
0727302	MM90 – HP unit AUTO 2×1	Air	Standard	C44
0727303	MM90 – HP unit AUTO 2×1	N_2O, CO_2	Standard	C44
0727308*	MM90 – HP unit AUTO 2×1	O_2, N_2O, Air, CO_2, N_2	Standard	–
0727309	MM90 – HP unit AUTO 2×1	O_2	Standard	Pressure switch
0727310	MM90 – HP unit AUTO 2×1	Air	Standard	Pressure switch
0727311	MM90 – HP unit AUTO 2×1	N_2O, CO_2	Standard	Pressure switch

*basic version without electric sensors

TECHNICAL DATA	
Gases:	O_2, Air, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	90 m³/h
Inlet nominal pressure:	200 bar (20 000 kPa)
Outlet nominal pressure:	9 bar (setting range 9–15 bar)
Inlet connection:	W21,8×1/14"M
Outlet connection:	G3/4"F + soldering piece pipe ø 22 mm
Pressure relieve valve:	16 bar
Pressure relieve valve pipe dimension:	ø 10 mm
Purge valves connection:	W21,8×1/14"M + soldering piece pipe ø 10 mm
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

530

455

760

Note!
Measurements in mm.

GAS MANIFOLD MM90 - HP UNIT

The MM90 HP unit medical manifold is intended for use in hospital pipeline systems as medical gas source. Together with MM90, always use an alarm providing all alarms according to standard (like gas alarm C44). As 2nd stage is recommended to use a stabilizer. The manifold will deliver gas from the operating bank to the manifold pressure regulator until the cylinders are exhausted. At that point the supply will switch to the reserve bank and the exhausted bank can be replenished. The object gives uninterrupted gas supply. Gas Alarm C44 is a standard accessory. The gas alarm C44 gives a visual and audible indication. It surveils and the alarm sounds when the following happens:

1. Change operation side
2. Leaking on reserve side
3. High operation pressure
4. Low operation pressure

The gas alarm C44 is able to communicate with other equipment through relays. The alarm has a battery back-up for 30 minutes of operation.

SPECIFICATION

MM90 INCLUDES THE FOLLOWING COMPONENTS:

> MM90 HP unit Manifold
> Gas alarm C44
> Purge valves
> HP filters

FOR A COMPLETE MM90 HP UNIT MANIFOLD ADD:

> Collecting pipe set (high pressure valves, and non-return valves / high pressure components)
> Cylinder retaining brackets (included in gas cylinder collecting pipe set)
> High pressure hoses with safety wire
> Plug for close collecting pipeline
> Gas name sign
> Stabilizer

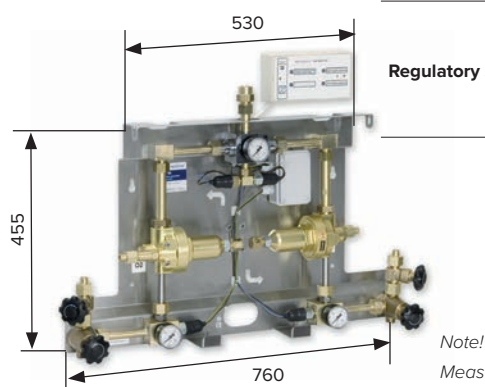*(For more information, please see accessories pages 16–20)*

Item No.	Denomination	Gas	PRV	Alarm
0727304	MM90 – HP unit 2×1	O_2	Standard	C44
0727305	MM90 – HP unit 2×1	Air	Standard	C44
0727306	MM90 – HP unit 2×1	N_2O, CO_2	Standard	C44
0727313*	MM90 – HP unit 2×1	O_2, Air	Manual activation	MC7701
0727314*	MM90 – HP unit 2×1	N_2O, CO_2	Manual activation	MC7701
0727327**	MM90 – HP unit 2×1	O_2, N_2O, Air, CO_2, N_2	Standard	–

*in accordance HB370; **basic version without electric sensors

TECHNICAL DATA	
Gases:	O_2, Air, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	90 m³/h
Inlet nominal pressure:	200 bar (20 000 kPa)
Outlet nominal pressure:	9 bar (setting range 9–15 bar)
Inlet connection:	W21,8×1/14"M
Outlet connection:	G3/4"F + soldering piece pipe ø 22 mm
Pressure relieve valve:	16 bar
Pressure relieve valve dimension:	ø 10 mm
Purge valves connection:	W21,8×1/14"M + soldering piece pipe ø 10mm
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

530
455
760

*Note!
Measurements in mm.*

GAS MANIFOLD MM90 - STANDBY BACKUP

The manifold MM90 STANDBY is designed to be used as a third source of supply in medical central gas systems. The manifold will deliver gas when the nominal supply system pressure falls below a set level (7 bar). This is a back up source.

Together with MM90 STANDBY always use the MM90 HP unit and alarm providing all alarms according to standard (like Gas alarm C44). As 2nd stage it is recommended to use a stabilizer.

Gas Alarm C44 is a standard accessory. The Gas alarm C44 gives visual and audible indication.

It surveils and the alarm sounds when the following happens:

1. Too high outlet pressure
2. Too low outlet pressure
3. Empty cylinder

The Gas alarm C44 is able to communicate with other equipment through relays. The alarm has a battery back-up for 30 minutes of operation.

SPECIFICATION

MM90 STANDBY INCLUDES THE FOLLOWING COMPONENTS:

> MM90 STANDBY Manifold with pressure switches

> Purge valves

> HP filters

FOR A COMPLETE MM90 STANDBY MANIFOLD ADD:

> Gas alarm C44

> Collecting pipe set (high pressure valves, and non-return valves / high pressure components)

> Cylinder retaining brackets (included in gas cylinder collecting pipe set)

> High pressure hoses with safety wire

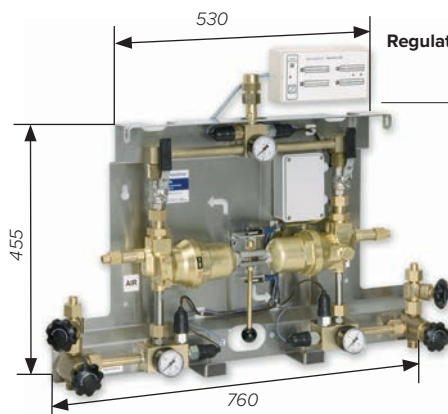> Plug for close collecting pipeline

> Gas name sign

> Stabilizer

(For more information, please see accessories pages 16–20)

Item No.	Denomination	Gas	PRV	Alarm
0727307	MM90 STANDBY	O_2, Air	Standard	Pressure switches
0727312	MM90 STANDBY	N_2O, CO_2	Standard	Pressure switches
0727338	MM90 STANDBY	N_2O, CO_2	Manual activation	Pressure switches

TECHNICAL DATA	
Gases:	O_2, Air, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	90 m³/h
Inlet nominal pressure:	200 bar (20 000 kPa)
Outlet nominal pressure:	7 bar (setting range 7–15 bar)
Inlet connection:	W21,8×1/14"M
Outlet connection:	G3/4"F + soldering piece pipe ø 22 mm
Pressure relive valve:	16 bar
Pressure relive valve pipe dimension:	ø 10 mm
Purge valves connection:	W21,8×1/14"M + soldering piece pipe ø 10 mm
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

363

245

318

Note!
Measurements in mm.

GAS MANIFOLD DUPLEX (MC80)

The MC80 gas manifold is suitable for medium to large sized hospitals. It has a flow capacity of up to 200 m^3/h and is conveniently designed in modules. The MC80 reduces the gas pressure in two steps to a constant distribution pressure. Service and tests can be carried out with no disturbance in the supply of gas to the gas distribution system.

THE DUPLEX MC80 CONSISTS OF THE THREE FOLLOWING UNITS:

1. MC80 - HP UNIT

This module contains two regulators with pressure relieve valves and it is connected to two various cylinder banks with high pressure hoses. When the cylinder bank, which has been connected for operation, has been emptied the other duty side is automatically connected.

2. MC80 - STABILIZER

The stabilizer makes the operating pressure in the distribution system remain constant. The module contains two regulators with pressure relieve valves. Since the gas pressure is reduced in two steps the drop in pressure, when changing from the operating cylinder to the other bank of cylinders, is kept to a minimum. The unit is prepared for connection to a liquid oxygen supply tank (LOX).

3. GAS ALARM SYSTEM - based on the product variant

Alarm systems from GCE are user friendly solutions, with simple control and lots of extra functionality. It surveils electronically and the alarm sounds when the following happens:

1. Too high or too low distribution pressure,
2. Too high intermediate pressure,
3. Leakage on the reserve gas cylinder bank,
4. When change of operating side has been effected,
5. Weak back up battery.

When connected to a liquid tank the following disturbances will be reported:

1. Too high or too low distribution pressure,
2. Too high intermediate pressure,
3. Leakage from the reserves,
4. When change of operating side has been effected.

The product is either equipped with an alarm system or a sensor only (as stated in column "Alarm" in the product table below).

SPECIFICATION

DUPLEX (MC80) INCLUDES THE FOLLOWING COMPONENTS:

> MC80 – HP Unit
> MC80 – Stabilizer
> Alarm or just sensor based on item in column "Alarm"
> Evacuating kits for collecting pipe
> Shut-off valve for the distribution line
> HP filters

FOR A COMPLETE DUPLEX (MC80) STANDBY MANIFOLD ADD:

> Collecting pipe set (high pressure valves, and non-return valves, high pressure components)
> High pressure hoses with safety wire
> Gas name sign
> Connection pipe 90 degree
> Extension pipes if needed

(For more information, please see accessories pages 16–20)

Item No.	Denomination	Gas	PRV	Alarm
0727318	DUPLEX 2×1	O_2	Manual activation	MC7701
0727319	DUPLEX 2×1	Air	Manual activation	MC7701
0727320	DUPLEX 2×1	N_2O/CO_2	Manual activation	MC7701
0727365	DUPLEX 2×1	ALL	Manual activation	TOUCH
0727321	MC80 HP 2×1	O_2	Manual activation	0–50 mV
0727322	MC80 HP 2×1	Air	Manual activation	0–50 mV
0727323	MC80HP 2×1	N_2O/CO_2	Manual activation	0–50 mV
0727324	MC80 STAB	O_2	Manual activation	0–50 mV
0727325	MC80 STAB	Air	Manual activation	0–50 mV
0727326	MC80 STAB	N_2O/CO_2	Manual activation	0–50 mV
0727339	MC80 STAB	ALL	Manual activation	Contact gauge
0727340	MC80 STAB	ALL	Manual activation	4–20 mA

TECHNICAL DATA	
Gases:	O_2, Air, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	200 m³/h
TECHNICAL DATA - HIGH PRESSURE UNIT MC80	
Inlet nominal pressure:	200 bar (20 000 kPa)
Outlet nominal pressure:	12 bar (setting range 10–16 bar)
Inlet connection:	W21,8×1/14"M
Outlet connection:	G3/4"F
Pressure relieve valve:	17 bar
Pressure relieve valve pipe dimension:	ø 10 mm
Purge valves connection:	W21,8×1/14"M + pipe ø 15 mm
TECHNICAL DATA - STABILIZER MC80	
Inlet maximal pressure:	20 bar (2000 kPa)
Outlet nominal pressure:	4,5 bar (setting range 0,5–6 bar)
Inlet connection:	G3/4"F
Outlet connection:	G3/4"F
Pressure relieve valve:	6,8 bar
Pressure relieve valve pipe dimension:	ø 15 mm

	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
Regulatory status:	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

450

580

450

580

Note!
Measurements in mm.

FLOW CHART: MC80 - HP UNIT

FLOW CHART: SET MC80 - STABILIZER + MC80 - HP UNIT
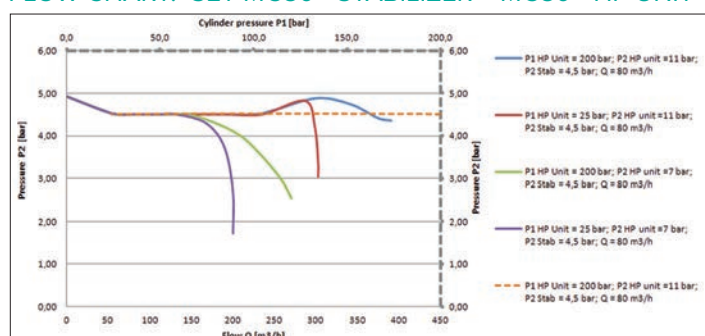
GAS MANIFOLD MC80 - STABILIZER

Manifold MC80 – STABILIZER is a second stage pressure reduction unit with the task to equalize the eventual pressure variation in the hospital pipeline system to ensure a correct pressure from the terminal units. MC80 – STABILIZER is only second stage reduction unit where the primary gas supply is provided by high pressure gas manifolds (such as MC80, MM90 or liquid oxygen tank (LOX). When there is a signal for pressure deviation in relation to the alarm settings, the alarm can easily be displayed on a gas alarm unit. It is also possible to send information to the central operation control. The stabilizer can be delivered with a pressure transmitter 4–20 mA, a pressure transmitter 0–50 mV or with a contact gauge.

The gas reduction unit MC80 – STABILIZER must always be installed in compliance with the standards EN ISO 7396-1 and the appropriate national standards.

SPECIFICATION

MC80 STABILIZER INCLUDES THE FOLLOWING COMPONENTS:

> MC80 Stabilizer Manifold

FOR A COMPLETE MC80 STABILIZER MANIFOLD ADD:

> Alarm unit (included if ordered together with HP unit)

> Ball valve DN15 with welding adaptors

Item No.	Denomination	Gas	PRV	Alarm
0727324	MC80 STAB	O_2	Manual activation	0–50 mV
0727325	MC80 STAB	Air	Manual activation	0–50 mV
0727326	MC80 STAB	N_2O, CO_2	Manual activation	0–50 mV
0727339	MC80 STAB	ALL	Manual activation	Contact gauge
0727340	MC80 STAB	ALL	Manual activation	4–20 mA

TECHNICAL DATA	
Gases:	O_2, Air, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	200 m^3/h
Inlet maximal pressure:	20 bar (2000 kPa)
Outlet nominal pressure:	4,5 bar (setting range 0,5–6 bar)
Inlet connection:	G3/4"F
Outlet connection:	G3/4"F
Pressure relieve valve:	6,8 bar
Pressure relieve valve pipe dimension:	ø 15 mm
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

450

580

Note!
Measurements in mm.

GAS MANIFOLD MC150 - STABILIZER

MC150 - STABILIZER is a second stage pressure reduction unit with the task to equalize the eventual pressure variation in the hospital pipeline system to ensure a correct pressure from the terminal units. MC150 - STABILIZER is a second stage reduction unit where the primary gas supply is provided by high pressure gas manifolds (such as MC80, MM90 or liquid oxygen tank (LOX). When there is a signal for pressure deviation in relation to the alarm settings, the alarm can easily be displayed on a Gas alarm unit. It is also possible to send information to the central operation control. The stabilizer can be delivered with either pressure transmitter 4-20 mA, pressure transmitter 0-50 mV or with contact gauge.

The gas reduction unit MC150 - STABILIZER must always be installed in compliance with the standards EN ISO 7396-1 and the appropriate national standards.

SPECIFICATION

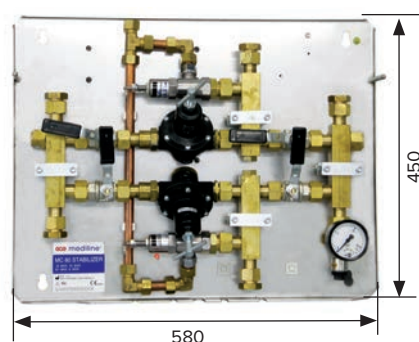**MC150 STABILIZER INCLUDES THE FOLLOWING COMPONENTS:**
> MC150 Stabilizer Manifold

FOR A COMPLETE MC150 STABILIZER MANIFOLD ADD:
> Alarm unit (included if ordered together with HP unit)

Item No.	Denomination	Gas	PRV	Alarm
325397706	MC150 STAB	O_2	Manual activation	Contact gauge
325397707	MC150 STAB	O_2, Air, N_2	Manual activation	4-20 mA

TECHNICAL DATA	
Gases:	O_2, Air, N_2, N_2O, CO_2 (all medical gases)
Nominal flow:	360 m³/h
Inlet maximal pressure:	20 bar (2000 kPa)
Outlet nominal pressure:	4,5 bar (setting range 0,5–6 bar)
Inlet connection:	2× G1 1/2"F+soldering piece pipe ø 35 mm
Outlet connection:	2× G1 1/2"F+soldering piece pipe ø 35 mm
Pressure relieve valve:	6,8 bar
Pressure relieve valve pipe dimension:	ø 35 mm
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

Note!
Measurements in mm.

GAS MANIFOLD SIMPLEX MMR

The Simplex MMR gas manifold is suitable for such health care where the capacity requirement is limited, such as laboratories and small health care clinics, veterinary etc. This gas manifold consists of only one group of cylinders.

The regulator is mounted in the collection unit. Each inlet connection has a filter, a non-return valve and a shut-off valve. This arrangement makes it possible to use one cylinder at a time.

In order to obtain a stabile outlet pressure this gas manifold is equipped with a preset two-stage regulator. On the high pressure side of the regulator there is a contact gauge the signal of which can be carried further to an alarm unit.

SPECIFICATION

SIMPLEX MMR INCLUDES THE FOLLOWING COMPONENTS:
> Gas cylinder manifold Simplex MMR
> Collecting pipe Manyflow block for three hoses
> Gas evacuation kits for collecting pipe

FOR A COMPLETE SIMPLEX MMR ADD:
> Gas alarm C44
> Pressure relieve valve with manual activation
> High pressure hoses with safety wire
> Cylinder retaining brackets (included in gas cylinder collecting pipe set)
> Gas name signs
> Pressure relieve valve

(For more information, please see accessories pages 16–20)

Item No.	Denomination	Gas	PRV	Alarm
325397702	Simplex MMR	O_2, Air, N_2, Ar, N_2O, CO_2	Standard integrated	Contact gauge

TECHNICAL DATA	
Gases:	O_2, Air, N_2, Ar, N_2O, CO_2 (all medical gases)
Nominal flow:	30 m^3/h
Inlet nominal pressure:	200 bar (20000 kPa)
Outlet nominal pressure:	5 bar (setting range 4–5 bar)
Inlet connection:	W21,8×1/14"M
Outlet connection:	G3/8"M
Pressure relieve valve:	6 bar
Pressure relieve valve pipe dimension:	ø 8 mm
Purge valves connection:	W21,8×1/14"M+pipe ø 15 mm
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

Note!
Measurements in mm.

HIGH PRESSURE GAS MANIFOLD ACCESSORIES

GCE can supply a complete range of high pressure accessories making it possible to install a medical gas supply system. All accessories are designed and manufactured according to the relevant standard for high pressure systems. The high pressure pipe components are manufactured in the following materials: stainless steel AISI 316 L and brass CuZn39Pb3, and they are tested at 360 bar. Cylinder holders for cylinders and connecting pipes are manufactured in AISI 316.

COLLECTION PIPE LINE

Collecting pipe sets are prepared for GCE HP manifold units. These sets are increasing the inlet points for HP cylinders or bundles. It is possible to connect the collecting pipelines serially and can be used in combination.

THE SET CONTAINS:
> High Pressure Valve
> Non Return Valve
> Collection Pipe

Item No.	Denomination	Application
0733003	1 cylinder collection pipe set, without cylinder holder	Back up manifold
0733004	2 cylinders collection pipe set, without cylinder holder	Back up manifold
0733005	4 cylinders collection pipe set, without cylinder holder	Back up manifold
0733000	2×1 cylinder collection pipe set	Cylinder bundles
0733001	2×2 cylinders collection pipe set	Cylinder bundles
0733002	2×4 cylinders collection pipe set	Cylinder bundles
0733006	2×1 cylinder collection pipe set+cylinder holders	Gas cylinders
0733007	2×2 cylinders collection pipe set+cylinder holders	Gas cylinders
0733008	2×4 cylinders collection pipe set+cylinder holders	Gas cylinders
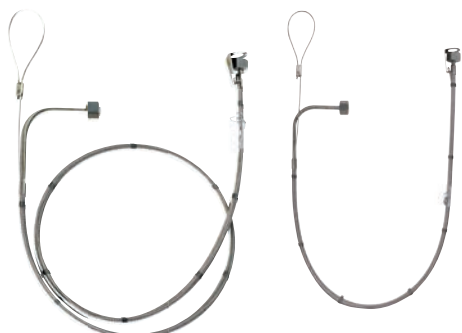
HIGH PRESSURE HOSES

Medical high pressure hoses are used to connect cylinders or cylinder bundles to gas supply systems. The high pressure hose is intended to be used with a pressure of up to 230 bar maximum. Pressure tested at 345 bar.
The hose is equipped with a safety wire.

HANDLING

The high pressure hose should be transported, stored, installed and maintained according to Instruction of Use. Maximum life time after installation is 5 years.

Item No.	Gas	Lenght (mm)	Inlet connection	Outlet connection
325197641	O_2	1250	W21,8×1/14"RH	W21,8×1/14"RH
325197651	O_2	2000	W21,8×1/14"RH	W21,8×1/14"RH
325197642	N_2O	1250	R3/8"RH	W21,8×1/14"RH
325197652	N_2O	2000	R3/8"RH	W21,8×1/14"RH
325197643	Air, Air−800	1250	R5/8"RH	W21,8×1/14"RH
325197653	Air, Air−800	2000	R5/8"RH	W21,8×1/14"RH
325197644	N_2/Ar	1250	W24,32×1/14"RH	W21,8×1/14"RH
325197654	N_2/Ar	2000	W24,32×1/14"RH	W21,8×1/14"RH
325197645	CO_2	1250	W27×2"RH	W21,8×1/14"RH
325197655	CO_2	2000	W27×2"RH	W21,8×1/14"RH

TECHNICAL DATA	
Tube:	Acid-proof Stainless Steel (AISI 316)
Plait:	Stainless Steel (AISI 304)
Wire:	Stainless Steel (AISI 304)
Nut and tightening material:	Acid-proof Stainless Steel (AISI 316)
Case and Oetiker:	Stainless Steel (AISI 304)
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN ISO 21969 (High Pressure Flexible Connection)

CONNECTING PIPES FOR CYLINDER MANIFOLDS

Connecting pipes with retaining brackets of stainless steel, for 1–4 cylinders.

Item No.	Connecting threads	Length (mm)	Number of cylinders
325197218	W21,8×1/14"RH EXT–INT	289	1
215191072	W21,8×1/14"RH EXT–INT	579	2
215191073	W21,8×1/14"RH EXT–INT	1159	4

CYLINDER RETAINING BRACKETS

Cylinder retaining brackets, completely made of stainless steel, for 1 or 2 cylinders.

Item No.	Length (mm)	Number of cylinders
215191074P	260	1
215191075P	550	2

CONNECTION PIPES FOR CYLINDER PACK MANIFOLDS

Item No.	Connecting threads	Length (mm)	Number of cylinders
215191012	W21,8×1/14"RH EXT–INT	289	1
215191013	W21,8×1/14"RH EXT–INT	579	2
215191014	W21,8×1/14"RH EXT–INT	1159	4

EXTENSION PIPES

Item No.	Connecting threads	Length (mm)
215191011	W21,8×1/14"RH EXT–INT	700

GAS EVACUATION VALVE KIT

Item No.	Inlet connection	Outlet connection pipe (mm)
325199080	W21,8×1/14" INT	ø 15

CONNECTING COMPONENTS FOR CYLINDER MANIFOLDS

Item No.	Description	Thread	Position
215191010	Connection pipe 90°	W21,8×1/14" EXT–INT	1
215191077	Blind plug	W21,8×1/14" EXT	2
215191068	Adaptor	W21,8×1/14" LH/ RH EXT–INT	3
200059835P	Coupling nut	W21,8×1/14" LH/RH INT–INT	4
215191080	End plug with nut	W21,8×1/14" INT	5
215191085	T–pipe for DUPLEX	W21,8×1/14" INT–INT–INT	6
215191126	S–pipe	W21,8×1/14" EXT–INT	7
202502362	Aluminium washer 50 pcs	16×12,5×1,5 mm	
325111032P	Copper washers 10 pcs	18×12,7×1,5 mm	
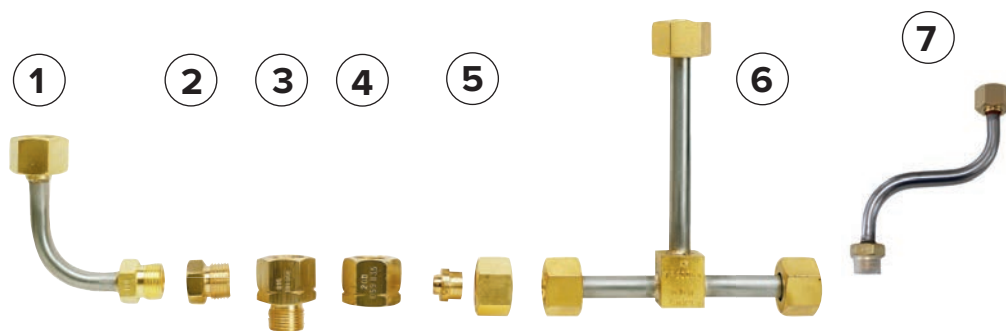
NON-RETURN VALVES FOR CONNECTION PIPES

Item No.	Denomination	Inlet	Outlet
215191044	Non-return valve for connection pipes	W21,8×1/14"RH EXT	W21,8×1/14"RH INT

HIGH PRESSURE FILTER

Item No.	Denomination	Inlet	Outlet
9459650P	High pressure filter	W21,8×1/14"RH EXT	W21,8×1/14"RH INT

HIGH PRESSURE VALVES 300 BAR

Item No.	Denomination	Inlet	Outlet
0765001	SOV DN4	W21,8×1/14"RH	W21,8×1/14"LH

Item No.	Denomination	Inlet	Outlet
BV777097	BV300 DN8	W21,8×1/14"RH	W21,8×1/14"RH

GAS SIGNS

LAMINATED LABELS

Item No.	Label description	Country	Dimensions
700325847	ANDNINGSOXYGEN	SE	297×210 mm
700325143	MEDISINSK OKSYGEN	NO	297×210 mm
700325297	MEDICINSK OXYGEN	DK	297×210 mm
700325145	HAPPI	FI	297×210 mm
700325848	LUSTGAS	SE	297×210 mm
700325185	MEDISINSK LYSTGASS	NO	297×210 mm
700325132	DINITROGENOXID	DK	297×210 mm
700325164	DITYPPIOKSIDI	FI	297×210 mm
700325328	MEDICINSK LUFT	SE	297×210 mm
700325162	MEDISINSK LUFT	NO	297×210 mm
700325853	AIR	DK	297×210 mm
700325146	ILMA	FI	297×210 mm
700325849	MEDICINSK KOLDIOXID	SE	297×210 mm
700325757	MEDISINSK KARBONDIOKSID	NO	297×210 mm
700325851	MEDICINSK KULDIOXID	DK	297×210 mm
700325852	CO2	FI	297×210 mm

INDICATION PANELS

Item No.	Denomination
215190287	Indication panel

PRESSURE RELIEVE VALVE MEDICAL PIPELINE SYSTEMS

The pressure relieve valve is used in medical pipeline systems to ensure that the pressure does not exceed 6,8 bar. The pressure relieve valve should be mounted on outgoing pipelines on Simplex MMR or can be mounted on other pipelines.

PRESSURE RELIEVE VALVE TUBE MOUNTING

Item No.	Gas	Relief Pressure	Inlet connection	Outlet connection
325197387	Medical gases and Air	6,8 bar	G3/4"F	G3/4"F

PRESSURE RELIEVE VALVE SIMPLEX MMR MOUNTING

Item No.	Gas	Relief Pressure	Inlet connection	Outlet connection
325197306	Medical gases and Air	6,8 bar	G3/8"F	G3/4"F

TECHNICAL DATA	
Evacutaion flow:	200 m^3/h
Evacutaion outlet pipe:	ø 15 mm
Relief pressure:	6,8 bar
Material:	brass, copper, stainless steel, rubber
Pressure class:	PN16
Regulatory status:	Degreased for Oxygen use
	no CE-marking

PRESSURE MONITOR
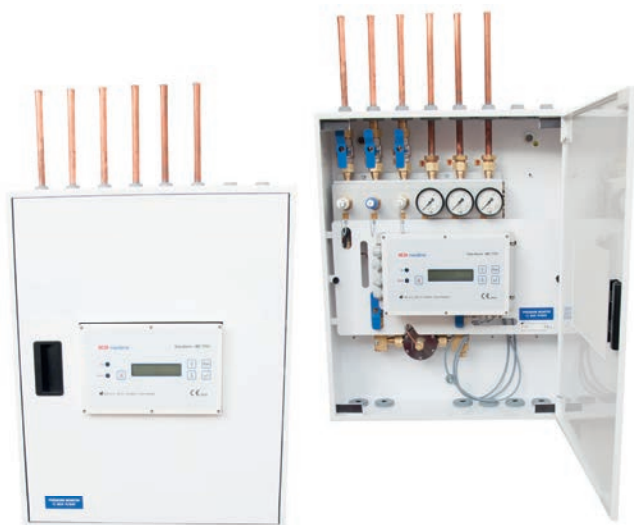
PRESSURE MONITOR

The pressure monitor makes sure that the lower distribution pressure for nitrous oxide compared to oxygen is kept.

The lower nitrous oxide pressure will be maintained according to standards even when the emergency supply is used through quick connectors or central emergency supply. The pressure monitor is equipped with a digital pressure monitor unit monitoring the current gas pressures, and giving all the visual and acoustic alarms required by standards. The signal to the gas alarm comes from pressure transmitters. The visual and audible signals can be sent to a manned area, if it is required.

The following gases are under surveillance: breathing Oxygen, Nitrous Oxide, Air and instrument Air. The alarm is indicated by an acoustic and visual signal at the same time as the exact cause of the alarm is written on the display. This happens if the gas pressure rises above or sinks below the set maximum or minimum limits respectively.

The pressure monitor is also equipped with a bayonet coupling for breathing oxygen, nitrous oxide, breathing air, and instrument air. When necessary, it is possible to connect spare gas to these.

| Item No.	Denomination	Inlet pipe	Outlet pipe	ES pipe	Alarm
0732818	O2, AIR	ø 15	ø 15	–	MC7701
0732819	O2, N2O, AIR	ø 15	ø 15	–	MC7701
0732820	O2, N2O, Air, Air–800	ø 15	ø 15	–	MC7701
0732821*	O2, AIR with ES	ø 15	ø 15	ø 15	MC7701
0732822*	O2, N2O, Air with ES	ø 15	ø 15	ø 15	MC7701
0732823*	O2, N2O, Air, Air–800 with ES	ø 15	ø 15	ø 15	MC7701
0732846	O2, AIR with ES	ø 15	ø 15	ø 15	TOUCH
0732854	O2, AIR	ø 22	ø 22	–	TOUCH
0732855	O2, N2O, AIR	ø 22	ø 22	–	TOUCH
0732856	O2, N2O, AIR, AIR-800	ø 22	ø 22	–	TOUCH
0732857	O2, AIR	ø 22	ø 22	ø 22	TOUCH
0732858	O2, N2O, AIR with ES	ø 22	ø 22	ø 22	TOUCH
0732859	O2, N2O, AIR, AIR-800 with ES	ø 22	ø 22	ø 22	TOUCH

*With central emergency supply from below

ACCESSORIES - EMERGENCY SUPPLY HOSES

Item No.	Gas	Length	Inlet conn.	Outlet conn.
325197814	O_2	1,3 m	SW NUT G3/8" – 6 mm	QC SS straight
325197815	N_2O	1,3 m	SW NUT G3/8" – LH	QC SS straight
325197816	Air	1,3 m	SW NUT G3/8" – 8 mm	QC SS straight
325197817	Air–800	1,3 m	SW NUT G3/8"	QC SS straight

TECHNICAL DATA	
Gases:	O2, N2O, Air, Air–800, CO2, N2, VAC (all medical gases)
Number of gases:	2 to 4 valves (DN15)
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4)–(-0,9) bar (vacuum)
Maximum pressure:	16 bar
Safety regulator capacity at 3 bar:	150 l/min
Tube dimension:	ø 15×1 mm, ø 22×1 mm
Emergency QC inlets:	QC by national standards
Pressure gauges:	0–16 bar
Pressure sensors:	Transmitters 0–50 mV (special order); 4–20 mA
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1-2 (Electromagnetic compatibility)
	and present SIS HB 370

PRESSURE MONITOR – PRESSURE DROP CHARACTERISTIC
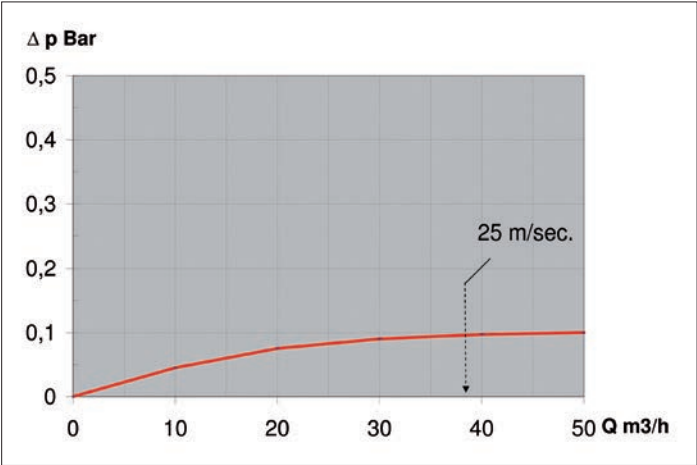
Pressure drop test. Inlet pressure 5 bar.
Standard - input - output pipe, variants with ES.
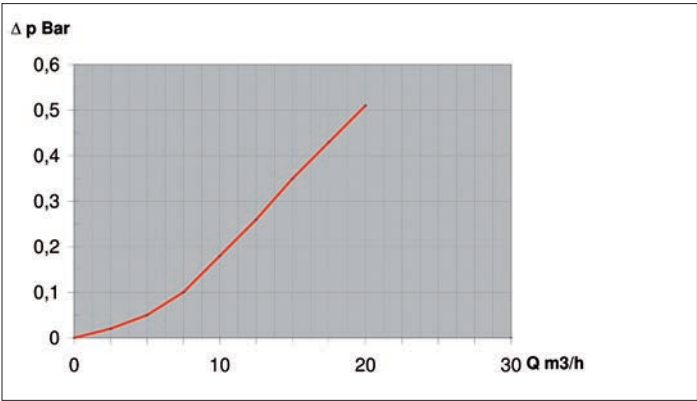
Pressure drop test. Inlet pressure 5 bar.
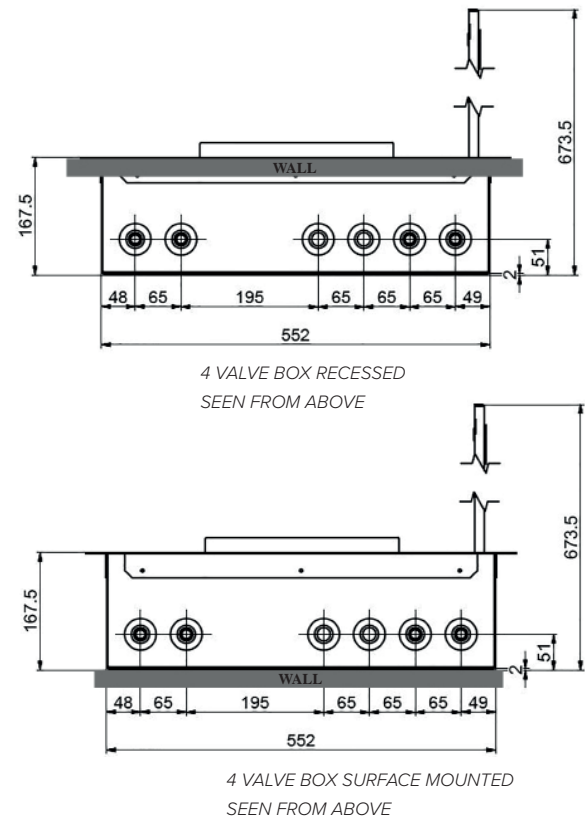*Emergency QC inlets.*

BASIC DIMENSIONS

4 VALVE BOX RECESSED
SEEN FROM ABOVE

4 VALVE BOX SURFACE MOUNTED   *Note!*
SEEN FROM ABOVE   *Measurements in mm.*

PRESSURE WATCH

PRESSURE WATCH

The Pressure Watch has the same shut off function as an ordinary Emergency Shut-Off Valve Box. Behind the plexiglass you can find quick couplings and gauges. The quick couplings are used to connect spare cylinders with regulators and emergency supply hoses.

To inform the hospital staff regarding gas failures the Pressure Watch is equipped with sensors for one of the following alarm systems: 1) – pressure switches that you connect to Gas alarm C44, 2) – pressure transmitters 4–20 mA that you connect to gas alarm TOUCH or directly to the hospital central computer system.

The Pressure Watch is delivered with 300 mm connection tubes and each box has been test pressurized and controlled for tightness. The Pressure Watch has large ergonomical handles.

If mounted in a recessed way, the emergency shut-off valve box fits walls with 70 mm beam.

With a 90 mm beam there is extra space (23,5 mm) behind the valve box usable for e.g. fire isolation.

All models, also with four or five gases, fit between the beams in a CC-60 wall. The box is gas-tight which prevents gas accumulation inside the wall.

The product is CE-marked according to EN ISO 7396-1.

It is important that the boxes are placed so that they are easily available for authorized personnel. The front door shall be sealed. In order to avoid mistakes the boxes shall be clearly and distinctly instead of marked with the type of gas. A sign showing which section the box serves must be placed in its immediate vicinity. The valves are open when the handles are in vertical position in line with the printed marking on the plate. To close the valves you turn the handle 90 degrees clockwise.

PRESSURE WATCH DN15 WITH PRESSURE SWITCHES

Item No.	No. of valves DN15	Gas	Inlet/Outlet pipe mm
325397726	1	O_2	ø 15
325397727	2	O_2, Air	ø 15
0732828	2	O_2, VAC yel	ø 15
325397728	3	O_2, N_2O, Air	ø 15
0732824	3	O_2, Air, VAC yel	ø 15
325397729	4	O_2, N_2O, Air, Air–800	ø 15
0732825	4	O_2, N_2O, Air, VAC yel	ø 15
325397730	5	O_2, N_2O, Air, Air–800, CO_2	ø 15
0732831	5	O_2, N_2O, Air, Air–800, VAC yel	ø 15

PRESSURE WATCH DN15 WITH TRANSMITTER 4-20 mA

Item No.	No. of valves	Gas	Inlet/Outlet pipe mm
325397861	1	O_2	ø 15
325397862	2	O_2, Air	ø 15
325397863	3	O_2, N_2O, Air	ø 15
325397858	3	O_2, Air, VAC red	ø 15
325397864	4	O_2, N_2O, Air, Air–800	ø 15
325397865	5	O_2, N_2O, Air, Air–800, CO_2	ø 15

BASIC DIMENSIONS

EXPOSED MOUNTING SEEN FROM SIDE

Note! Measurements in mm.

1–3 VALVE BOX FROM ABOVE

4–5 VALVE BOX FOM ABOVE

RECESSED MOUNTING SEEN FROM SIDE
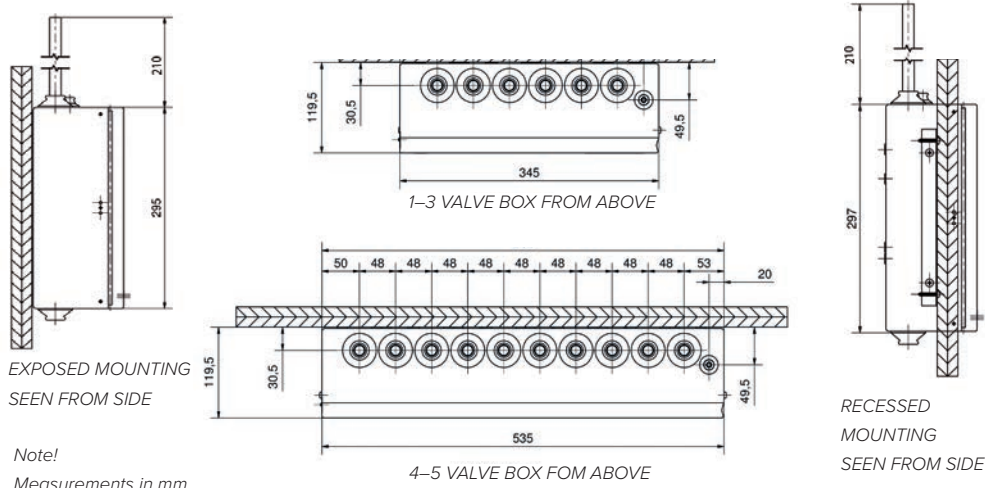
PRESSURE WATCH DN20 WITH PRESSURE SWITCHES

Item No.	No. of valves	Gas	Inlet/Outlet pipe mm
0732829	1	Air–800	ø 22
0732802	2	O_2, Air	ø 22
0732826	2	Air–800, N_2O	ø 22
0732830	2	O_2, VAC yel	ø 22
0732804	3	O_2, N_2O, Air	ø 22
0732803	3	O_2, Air, Air–800	ø 22
0732805	3	O_2, Air, VAC red	ø 22
0732827	3	O_2, Air, VAC yel	ø 22

PRESSURE WATCH DN20 WITH TRANSMITTER 4-20 mA

Item No.	No. of valves	Gas	Inlet/Outlet pipe mm
0732806	2	O_2, Air	ø 22
0732808	3	O_2, N_2O, Air	ø 22
0732807	3	O_2, Air, Air–800	ø 22
0732809	3	O_2, Air, VAC red	ø 22

PRESSURE WATCH DN20 EMERGENCY SOURCE WITH PRESSURE SWITCHES

Item No.	No. of valves	Gas	Inlet/Outlet pipe mm
0732810	2	O_2, Air	ø 22
0732812	3	O_2, N_2O, Air	ø 22
0732811	3	O_2, Air, Air–800	ø 22
0732813	3	O_2, Air, VAC red	ø 22

PRESSURE WATCH DN20 EMERGENCY SOURCE WITH TRANSMITTER 4-20 mA

Item No.	No. of valves	Gas	Inlet/Outlet pipe mm
0732814	2	O_2, Air	ø 22
0732816	3	O_2, N_2O, Air	ø 22
0732815	3	O_2, Air, Air–800	ø 22
0732817	3	O_2, Air, VAC red	ø 22

TECHNICAL DATA	
Gases:	O_2, N_2O, Air, Air–800, CO_2, N_2, VAC (all medical gases)
Number of gases:	(ø 15×1) 1 to 5 valves (DN15)
	(ø 22×1) 1 to 3 valves (DN20)
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4)–(-0,9) bar (vacuum)
Maximum pressure:	16 bar
Tube dimension:	ø 15×1 mm
	ø 22×1 mm
Emergency QC inlets:	QC by national standards
Pressure gauges:	0–16 bar
Pressure sensors:	Pressure switches; Transmitters 0–50 mV (special order); 4–20 mA
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

2–3 VALVE BOX FOM ABOVE

EXPOSED MOUNTING WITHOUT EMERGENCY SOURCE SEEN FROM SIDE

RECESSED MOUNTING WITH EMERGENCY SOURCE SEEN FROM SIDE
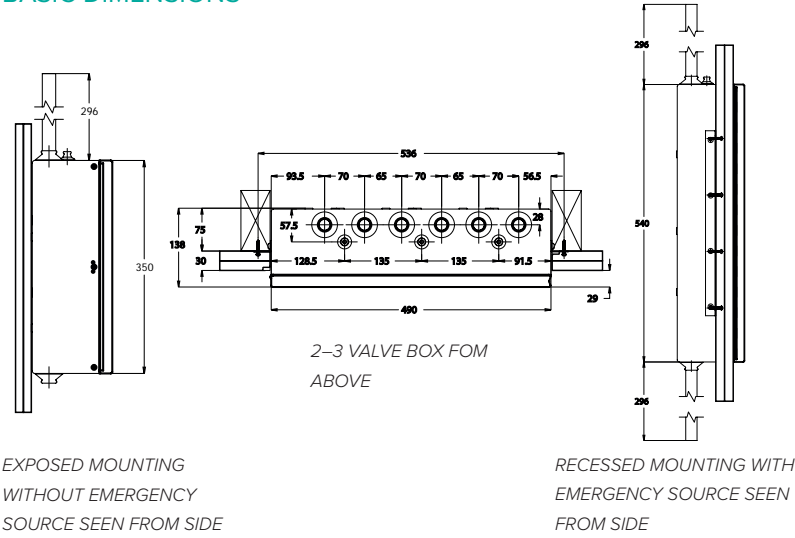
Note!
Measurements in mm.

SLIDE ZONE CONTROL UNITS

Zone control units are used in medical gas systems to control the output pressure of the supply source to the medical equipment and patients and when necessary, to isolate between the supply source and the utilization points.

The anthracite grey coloured tempered glass panel used in the SLIDE zone control unit has a chic appearance and fits in perfectly with various interior designs in hospitals.

SLIDE Zone Control Unit, the new zone service unit, is designed to reflect contemporary design with simple lines and a sophisticated rectangular shape. Because of its aluminium body structure, the product gains light weightness and has a long life term. A smooth and semi-transparent glass cover makes it easy to clean and ensures maximum hygiene.

Opening up with a slide rail system the unit is space saving in corridors. Equipped with an integrated alarm system, either as LED or TOUCH variant, the unit ensures maximum functionality and is very user-friendly.

The hidden lock system keeps the zone control unit safe from unwanted manipulation and can be broken in case of emergency. One spare breakable piece of the lock can be found inside the unit.

The gas pressure gauges, gas names and alarms can be read without opening the front panel.

The alarm interface can be reached without opening the lock and control buttons such as "test" and "mute" can be used easily.

Glass stoppers are installed at 2 different stages and lift the glass properly during service processes.

There is a proper separation between the gas and alarm compartments.

In addition to the gas cutting valves, the gas blocks have manual physical isolation units, in compliance with EN standards.

Depending on request, the SLIDE may be surface or flush mounted and with or without alarm system.

TECHNICAL DATA	
GAS CONTROL STRUCTURAL FEATURES	
Brass monoblock body, physical separation part, oilfree - suitable to oxygen	
Equipped with a ball valve, pressure switch or pressure transmitter and manometer / vacuum meter	
Gas specific emergency serv. feeding inlet at output (NIST, DIN, AFNOR, BS,UNI, SS, CZ type for O_2, Med.Air, Surg.Air, Vac, N2O, Entonox (O_2/N_2O), CO_2	
Gas types:	Oxygen, Medical Air, Surgical Air, Vacuum, Nitrous oxide, Entonox Mix Gas (O_2/N_2O), Carbon dioxide
Inlet and outlet pressure:	10 bar
	-1 bar (for vacuum)
Units are not intended for use in regions endangered by explosion	
Units are designed for continuous operation	
ORDINARY APPLIANCE	
Protection Class:	1
Type of Protection:	Covered Construction (IP 21)
Council Guidelines:	Class IIb
BASIC REGULATIONS	EN ISO 7396-1
	EN ISO 9170-1

GAS ALARM

GAS ALARM - GCE TOUCH

The purpose of alarm systems is to inform hospital personal about none standard pressure deviation in the hospital medical gas systems. It is one of the most important security products among medical gas systems. It ensures that downtime, pressure changes, etc. will be indicated and that the hospital staff is informed so that they can act according to hospital instructions.

The gas alarm GCE TOUCH is an alarm that has all necessary functions for an early detection of these problems. GCE TOUCH is very easy to operate with its clear and straight forward menu layout. It is a user-friendly alarm based on a 7" LCD touch screen display with graphic buttons, simple control and with lots of extra functionality. GCE TOUCH has a GSM module for transmitting an alarm situation directly to the hospital engineers and the ability to communicate through an Ethernet connection. The SMS module can send information about the alarm status to up to 10 mobile phone numbers. As GCE TOUCH has a log function to store all emergency situations it is possible to find historical data if necessary.

GCE TOUCH gas alarm fulfills ISO 7396, national installation standards, and all relevant electrical standards as EN 60601-1, EN 60601-1-2, which guarantee safety usage in hospitals.

GCE TOUCH contains:
> Manifold local alarm
> Pressure monitor alarm
> Pressure watch alarm
> Section gas alarm

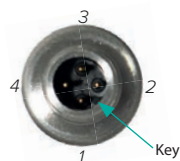| For more information, please contact our sales and product support	
TECHNICAL DATA	
Display:	7" LCD Touch screen
Analog inputs:	10×; 4–20mA; 2 wires connection
Digital inputs:	8×; log0<2 VDC; log 1>4 VDC; 2 wires + ground
Switching outputs:	27,6 VDC
Relay output:	3×; NO/NC/GND potential free contacts
Acoustic alarm:	440Hz/880Hz; min 57dB
Log database:	Min. 1000 items
Communication:	1× Ethernet - Modbus TCP
	1× GSM module
	1× USB for service purposes
Power supply:	100–240 VAC; 50–60 Hz; max 60 VA
Backup battery:	Optional accessories; external 2×12 VDC
Enclosure:	IP65 for I-O Module, Power supply, Battery box
Working temperature:	10–40 ºC
Dimensions L × W × H	
Display part:	225×190×60 mm
I–O Module:	210×150×75 mm
Power supply:	210×150×75 mm
Battery backup:	210×150×75 mm
Regulatory status	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN 60601-1 (Electrical safety)
	Complies with EN 60601-1-2 (EMC – Electromagnetic compatibility)

PRESSURE TRANSMITTER 4-20 mA

Small compact pressure transmitter with good performance.
Suitable for mobile applications when vibration reliable sensors are needed.
Compact connectors.

> High Proof Pressure
> RoHS Compliant
> All-stainless steel parts
> Degreased for Oxygen

ELECTRICAL CONNECTOR

1 = +IN
2 = N/C
3 = 0V
4 = PE

BASIC DIMENSIONS

M12×1 - 4 pins

Note!
Measurements in mm.

ACCESSORIES

Pin No.	Wire color
1	Brown
2	White
3	Blue
4	Black

Item No.	Pressure range	Proof pressure	Burst pressure	Thread	Connector
SPK36410001	(-1)-0 bar	10 bar	15 bar	G1/4" EXT	M12×1 - 4 pins
SPK36410002	0 - 16 bar	48 bar	640 bar	G1/4" EXT	M12×1 - 4 pins
SPK36410003	0–250 bar	500 bar	2500 bar	G1/4" EXT	M12×1 - 4 pins

ACCESSORIES

Item No.	Denomination	Length
SPK36410004	Cable M12×1 - 4 pins	2 m

TECHNICAL DATA	
Performance:	
Long Term Drift:	0.2% FS/YR (non-cumulative)
Accuracy:	0.25% FS
Thermal Error:	±1.5% max, ±1% typical / 100°C
Compensated Temperatures:	-40°C to +120°C
Operating Temperatures:	-40°C to +120°C
Zero Tolerance:	±0.5% of span
Span Tolerance:	±0.5% of span
Fatigue Life:	Designed for more than 100 M cycles
Mechanical Configuration:	
Current Output 2-wire:	4-20 mA
Supply Voltage:	8 - 30 VDC
Pressure Port:	G1/4" Male
Parts in contact with gas:	Stainless Steel
Electrical Connection:	M12×1 - 4 pin
Enclosure:	IP67
Vibration:	BSEN 60068-2-6 (FC) Sine (20G);
	BSEN 60068-2-64 (FH) Random (14.1 Grms)
Shock:	BSEN 60068-2-27 (Ea) (50G, 11ms)
Approvals:	CE, RoHS
EMC Approvals:	
Emissions and Immunity tests:	EN61326-1 and EN61326-2-3

WIRING DIAGRAM
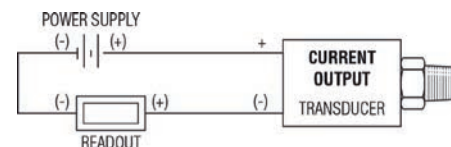
CURRENT OUTPUT MODE (LOAD RESISTOR RANGE)
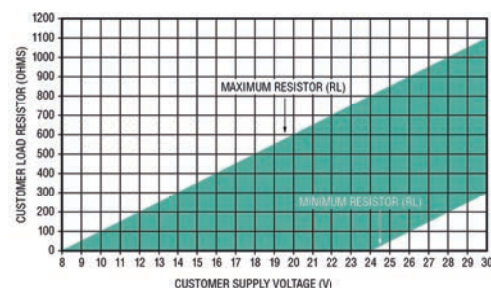
GAS ALARM - MC7701

This alarm gives visual and audible indications as well as status messages in plain language. When used with a manifold, the following conditions are surveilled:

1. Too high or too low distribution pressure,
2. Too high intermediate pressure,
3. Leakage on the non-operating gas cylinder bank,
4. When change of operating side has been effected.

When connected to a liquid tank the following disturbances will be reported:

1. Too high or too low distribution pressure,
2. Too high intermediate pressure
3. Leakage on the non-operating gas cylinder bank.
4. When change of operating side has been effected.

When used with a pressure monitor or pressure watch the following conditions are surveilled: Too high or too low distribution pressure.

The MC7701 is able to communicate with another equipment through a serial link RS485, Modbus RTO and / or relays. The alarm has a battery back-up for 30 minutes of operation.

Item No.	Denomination
325197497P	Digital pressure monitor MC7701 UNILARM

ACCESSORIES

Item No.	Denomination
325112696P	Cable with Hirsman contact 3m
325112698P	Cable with cable connectors 3 m
325112496	Backup batteries MC7701
325110804P	Pressure Transmitter 0–50 mV G1/8" 0–16 bar
325110528P	Pressure Transmitter 0–50 mV G1/8" 0–25 bar
325110527P	Pressure Transmitter 0–50 mV G1/8" 0–250 bar

TECHNICAL DATA	
Power supply:	230 VAC; 0,3A/24 VAC; 1,3 A
Backup battery:	10,8 V
Power Consumption:	15 VA
Enclosure:	IP65
Working temperature:	10–40 ºC
Relay outputs:	14 potential free contacts
Relay output max. rating:	125 VAC; 60 VDC/1A/62,5 VA/30 W
Serial communication:	Modbus RTU
Display languages:	Swedish, Norwegian, Danish, Finnish, English and Hungarian
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	EMC tested in accordance EN 60601-1-2 (Emission and immunity)

BASIC DIMENSIONS
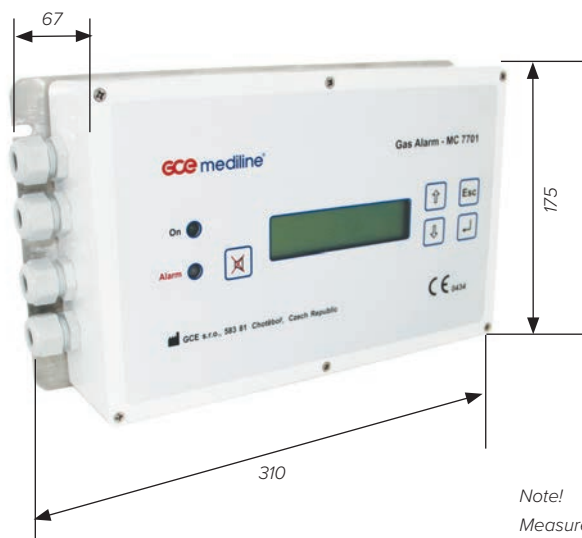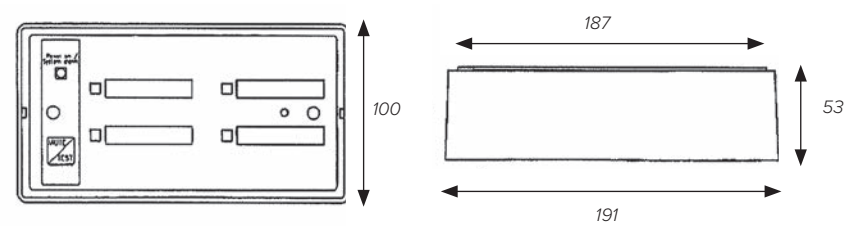

Note!
Measurements in mm.

GAS ALARM - G4

The alarms are summation alarms for both high and low pressure. In addition to this, a failure in the computer communication system, or a damaged signal cable (for example cut off) is also indicated. The loudness of the sound can be adjusted by using the potentiometer placed behind the covering lid. At delivery the sound is set at medium.

The gas alarm G4 is available in two different designs, for recessed mounting and for exposed mounting. The display will show any of eight languages chosen from stickers enclosed. The alarm is equipped with a rechargeable battery in case of power failure.

Item No.	Denomination
325197713	Gas alarm G4 recessed mounting
325197714	Gas alarm G4 exposed mounting

TECHNICAL DATA	
To be used only together with digital Gas alarm - MC7701	
Maximum units in serial connection:	10 units
Backup battery:	9 V
Working temperature	10-40 °C
Power supply:	From MC 7701 (15V; 4,5 VA)
Recommended cable:	Signal cable 0,75 mm^2
	Computer wire like Alpha type 5472C or similar
Maximum cable lenght:	400 m (between alarms)
Regulatory status	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	EMC tested in accordance EN 60601-1-2 (Emission and immunity)

EXPOSED MOUNTING

187
100
53
191

RECESSED MOUNTING

Cover frame
180
112
90
65
70
202
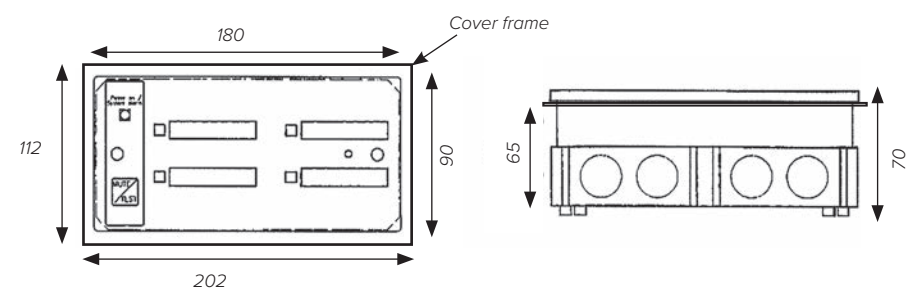
Note!
Measurements in mm.

GAS ALARM - C44

Gas Alarm C44 is a gas pressure alarm intended for small gas manifolds, stabilizers and for example contact gauges/pressure switches connected directly to the main line. The C44 is a microprocessor based alarm for 4 alarm channels and is connected to the pressure sensing device with volt free contacts, for example contact gauges or pressure switches. Alarm C44 is voltage fed with 11,5 VAC. Supply voltage is fed by the enclosed transformer. Visible from the front is an integrated push button TEST/MUTE. If there is no alarm condition, all the light emitting diodes and the buzzer can be tested when the button is pushed.

Should there be an alarm condition, the signal will be suppressed for 15 minutes. If an alarm has been silenced and a new one occurs, the MUTE function is cleared and the signal comes back until the cause has been attended to and the MUTE button is pushed again.

Alarm C44 is equipped with an environmental-friendly rechargeable NiMH back-up battery.

The sound volume is adjustable via a potentiometer placed behind the cover. At delivery the sound volume is set at medium.

Item No.	Denomination
325197711P	Gas alarm C44 exposed mounting

TECHNICAL DATA	
Power supply:	230 VAC; 14VA/11,5 VAC; 0,9 A
Backup battery:	9 V
Power Consumption:	about 3,5 VA
Working temperature:	10–40 ºC
Relay outputs:	4 potential free contacts
Relay output max. rating:	125 VAC; 60 VDC/1A/62,5 VA/30 W
Recommended cable:	Signal cable 0,25 mm²
	Feed cable 0,75 mm²
Maximum cable lenght:	3 m (alarm-pressure switches)
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	EMC tested in accordance EN 60601-1-2 (Emission and immunity)

EXPOSED MOUNTING
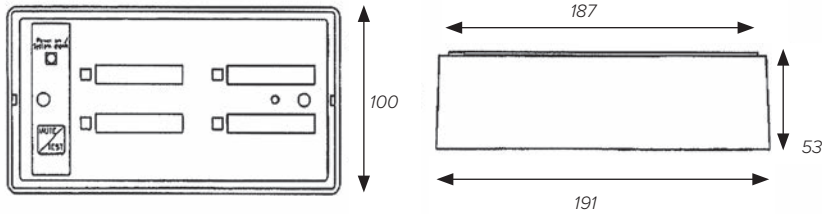
Note!
Measurements in mm.

SHUT-OFF VALVE BOX

For safety and service reasons a central gas system must be equipped with shut-off valves placed so that the gas supply can easily be interrupted. The valves are mounted in a box. The emergency shut-off valve boxes should be placed so that the gas can be shut off section wise. This means that the boxes should be positioned before each ward, operating unit, part of ward for critical treatment and individual surgeries.
The emergency shut-off valve box is delivered with connection tubes and each box has been test pressurized and leakage tested.
The emergency shut-off valve has large ergonomical handles.
If mounted in a recessed way, the emergency shut-off valve box fits walls with 70 mm beam. With a 90 mm beam there is extra space (23,5 mm) behind the valve box usable for e.g. fire isolation.
All models, also with four or five gases, fit between the beams in a CC-60 wall. The box is gas-tight which prevents gas accumulation inside the wall. The product is CE–marked according to EN ISO 7396-1.
It is important that the boxes are placed so that they are easily available for authorized personnel. The front door shall be sealed.
In order to avoid mistakes the boxes shall be clearly and distinctly marked with the gas type. A sign showing which section the box serves must be placed in its immediate vicinity.
The valves are open when the handles are in vertical position in line with the printed marking on the plate.

SHUT-OFF VALVE BOX DN15

Item No.	Type	Inlet pipe	Outlet pipe
325397721	1 valve DN15	ø 15	ø 15
325397722	2 valves DN15	ø 15	ø 15
325397723	3 valves DN15	ø 15	ø 15
325397724	4 valves DN15	ø 15	ø 15
325397725	5 valves DN15	ø 15	ø 15

BASIC DIMENSIONS

1–3 VALVE BOX FROM ABOVE

4–5 VALVE BOX FOM ABOVE

EXPOSED MOUNTING SEEN FROM SIDE

RECESSED MOUNTING SEEN FROM SIDE
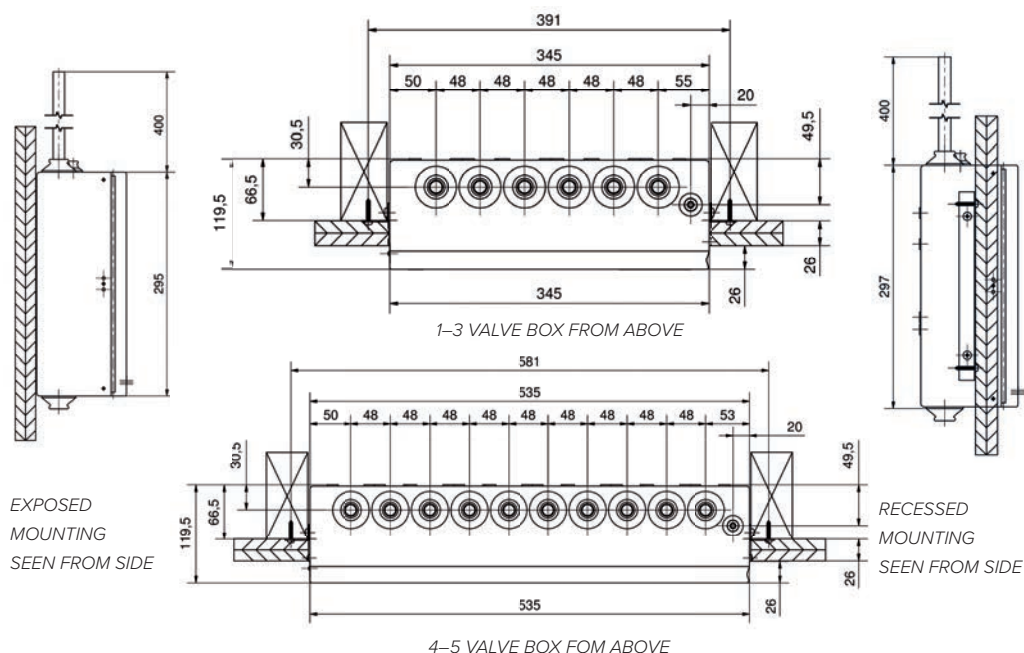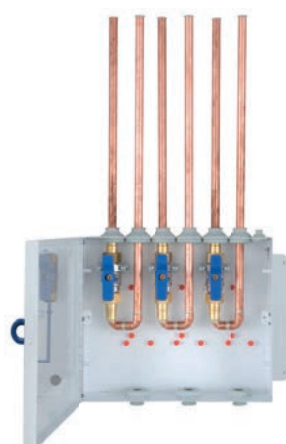
Note!
Measurements in mm.

SHUT-OFF VALVE BOX DN20

Item No.	Type	Inlet pipe	Outlet pipe
0732703	1 valve DN20	ø 22	ø 22
0732701	2 valves DN20	ø 22	ø 22
0732702	3 valves DN20	ø 22	ø 22

TECHNICAL DATA	
Gases:	O_2, N_2O, Air,Air–800, CO_2, N_2, VAC (all medical gases)
Number of gases:	(ø 15×1) 1 to 5 valves (DN15)
	(ø 22×1) 1 to 3 valves (DN20)
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4–(-0,9) bar (vacuum)
Maximum pressure:	16 bar
Tube dimension:	ø 15×1 mm
	ø 22×1 mm
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

EXPOSED MOUNTING
SEEN FROM SIDE

1–3 VALVE BOX
RECESSED
FROM ABOVE

RECESSED MOUNTING
SEEN FROM SIDE

Note!
Measurements in mm.

MEDICAL SHUT OFF VALVES

To meet safety requirements, the gas supply to operating rooms etc must be fitted with a device to allow instant shut off. To allow maintenance the gas supply must be controlled by section. To achieve the demands of safety and maintenance, shut-off valves should be fitted in every main line, riser and branch line in the pipework system.
The valves are degreased and blown clean. They can be equipped with unions to be soldered to the copper piping. Before delivery each valve is individually leak tested. The ball is sealed with washer of PTFE. The stem is sealed with two silicon O−rings or PTFE washer. The valve housings are sealed with an EPDM quality O−ring. No maintenance – the ball valve does not need services, when necessary the whole valve is exchanged.

SHUT-OFF VALVE INCL 2 PCS WASHER

Item No.	Thread	Valve	L (mm)	H(mm)
325196767	G1/2" EXT	DN10	67	46
325196768	G3/4" EXT	DN15	77	48
325197794	G1" EXT	DN20	100	52
325196770	G1 1/4" EXT	DN25	115	54
325397236	G1 1/2" EXT	DN32	132	72
325397237	G2" EXT	DN40	145	84
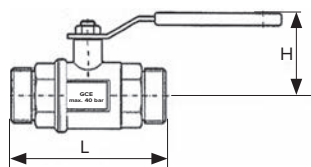
CONNECTION PARTS (2 CONNECTION NUTS AND 2 CONNECTION PIECES)

Item No.	Material	Valve	A/B mm
325196910	Red brass SS 5204	DN10	10/15
325196911	Red brass SS 5204	DN10	12
325196912	Red brass SS 5204	DN15	15/22
325196913	Red brass SS 5204	DN15	18
325197795	Red brass SS 5204	DN20	22/28
325196914	Red brass SS 5204	DN25	22/35
325196915	Red brass SS 5204	DN25	28
325197324	Red brass SS 5204	DN32	35/42
325197325P	Red brass SS 5204	DN40	42/48
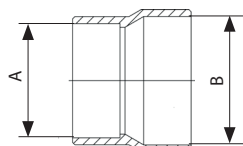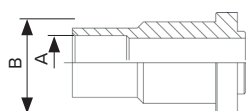
CONNECTION PARTS (SOLDERING ADAPTER DN40-DN50 2 PCS)

Item No.	Material	A/B mm
325196776	Red brass SS 5204	48/54

Order both DN 40 and DN 50 for union enlargement.

SPARE PARTS

Item No.	Denomination	Valve	Thread
325110373P	Washer, 10 pcs	DN10	–
325100729P	Washer, 10 pcs	DN15	–
325113389P	Washer, 10 pcs	DN20	–
325100730P	Washer, 10 pcs	DN25	–
201241192P	O−ring, EPDM, 5 pcs	DN32	–
201241193P	O−ring, EPDM, 5 pcs	DN40	–
202502266	Connection nut, 2 pcs	DN10	G1/2" INT
202502268	Connection nut, 2 pcs	DN15	G3/4" INT
325113373P	Connection nut, 2 pcs	DN20	G1" INT
202502270	Connection nut, 2 pcs	DN25	G1 1/4" INT
325112281P	Connection nut, 1 pce	DN40	G2" INT

TECHNICAL DATA	
Gases:	O_2, Air, N_2, Ar, N_2O, CO_2 (all medical gases)
Material valve housing:	Nickel plated brass
Ball:	Chrome plated brass
Stem:	Nickel plated brass
Max working pressure:	40 bar (4000 kPa)
Tighten proof:	(-1)–50 bar [(-100)–5000 kPa]
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply System)
	Complies with EN 331 (Manually operated ball valves)

NON RETURN VALVE

The non return valve unit is intended for use in medical central gas systems to secure that gas does not flow back from the equipment and pipes through the central gas system. This is very important for example when technical air is taken from medical air pipes for use in laboratories.

The non return valve unit consists of a non return valve (NRV) with a flow direction arrow, lockable medical shut off valves, soldering pieces, nuts and a gasspecific medical quick coupling (QC) for medical breathing air. This design makes the NRV very easy to test. The QC can also be used for checking the pressure, doing leak tests and take gas samples. The NRV unit can also be delivered with QC for instrumental air.

For more information please contact our sales and product support

NON RETURN VALVE UNIT

Item No.	Denomination	Total Length
329000825	Non return valve unit O2 DN15	415 mm
325397676	Non return valve unit AIR DN15	415 mm
329000826	Non return valve unit Air–800 DN15	415 mm
325397677	Non return valve unit AIR DN25	505 mm
325397777	Non return valve unit Air–800 DN25	505 mm
325397678	Non return valve unit AIR DN40	932 mm

SEALING BETWEEN NON RETURN VALVE AND CONNECTING PIECE

Item No.	Denomination
944610218P	DN15 O–ring, 10 pcs
325112713P	DN25 Sealing, 10 pcs
325112880P	DN40 O–ring, 10 pcs

TECHNICAL DATA	
Opening pressure:	0,06 bar (6 kPa)
Pressure class:	PN16
Regulatory status:	Degreasing for Oxygen use
	no CE–marking

TERMINAL UNITS - MEDIUNITS

Recessed version

Exposed version

Installation plug
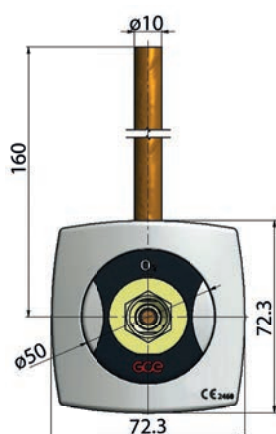
TERMINAL UNIT - MEDIUNIT (DIN)

Medical terminal units provide quick and easy connection of hospital ward gas equipment to the hospital gas source. The type of medical gasoutlets are decided by national standards in each country and sometimes from local requests in each hospital. GCE complies with ISO 7396 and national installation standards with secure products where every product is fully tested in production. Our Medical gas outlets are in accordance with ISO EN 9170-1, ISO EN 9170-2 international standards.

> Wall housing is compatible with all GCE MediUnit standards like DIN, BSI, SS, CZ
> All functional components are from brass
> Simple installation
> Fast connection and disconnection
> Designed for medical environment, small size and easy to clean
> Complies with colour coding and description by standard
> After 10 years it is possible to upgrade the units with a special upgrade pack
> Recessed and exposed versions
> Bed head installation version (customized solution on request)

Item No.	Denomination	Type	Marking
0732201046	O_2 – RECESSED	Pipe ø 10 mm	O_2
0732201049	N_2O – RECESSED	Pipe ø 10 mm	N_2O
0732201047	AIR – RECESSED	Pipe ø 10 mm	AIR
0732201050	CO_2 – RECESSED	Pipe ø 10 mm	CO_2
0732201048	VAC – RECESSED	Pipe ø 10 mm	VAC
0732201051	O_2 – EXPOSED	Pipe ø 10 mm	O_2
0732201054	N_2O – EXPOSED	Pipe ø 10 mm	N_2O
0732201052	AIR – EXPOSED	Pipe ø 10 mm	AIR
0732201055	CO_2 – EXPOSED	Pipe ø 10 mm	CO_2
0732201053	VAC – EXPOSED	Pipe ø 10 mm	VAC

INSTALLATION TOOLS

Item No.	Denomination
MP_00345	QC installation keys
MP_00324	Button remover
MP_01157ST	Pendants/bedhead unit – installation tool
0732040	Installation plug (10 pcs)

BASIC DIMENSIONS

Note!
Measurements in mm.

| TECHNICAL DATA	
Gases:	O_2, N_2O, Air, CO_2, N_2, VAC
Dimensions:	Height: 73 mm, Width: 73 mm, Depth: 63 mm
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4)–(-0,9) bar (vacuum)
Maximum pressure:	20 bar
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN ISO 9170-1 (Terminal units)
	Complies with EN ISO 9170-2 (Terminal units for AGSS)
	Complies with DIN 13260-2 (DIN gas specific connections)
	present HTM 02-01

Recessed version

Exposed version

Installation plug
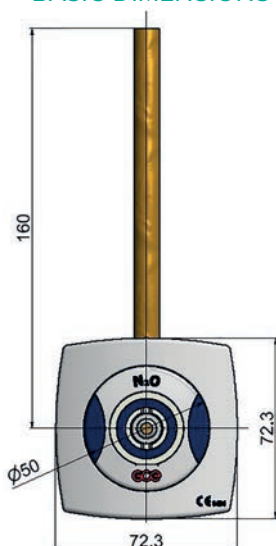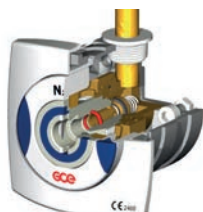
TERMINAL UNIT - MEDIUNIT (SS)

Medical terminal units provide quick and easy connection of hospital ward gas equipment to the hospital gas source. The type of medical gasoutlets are decided by national standards in each country and sometimes from local requests in each hospital. GCE complies with ISO 7396 and national installation standards with secure products where every product is fully tested in production. Our Medical gas outlets are in accordance with ISO EN 9170-1, ISO EN 9170-2 international standards.

> Wall housing is compatible with all GCE MediUnit standards like DIN, BSI, SS, CZ
> All functional components are from brass
> Simple installation
> Fast connection and disconnection
> Designed for medical environment, small size and easy to clean
> Complies with colour coding and description by standard
> After 10 years it is possible to upgrade the units with a special upgrade pack
> Recessed and exposed versions
> Bed head installation version (customized solution on request)

Item No.	Denomination	Country	Type	Marking
0732200073	O_2 – RECESSED	SE	Pipe ø 10 mm	ANDNINGSOXYGEN
0732200076	N_2O – RECESSED	SE	Pipe ø 10 mm	LUSTGAS
0732200074	AIR – RECESSED	SE	Pipe ø 10 mm	ANDNINGSLUFT
0732200078	AIR-800 – RECESSED	SE	Pipe ø 10 mm	INSTRUMENTLUFT
0732200077	CO_2 – RECESSED	SE	Pipe ø 10 mm	MEDICINSK KOLDIOXID
0732200075	VAC – RECESSED	SE	Pipe ø 10 mm	GASUTSUG
0732200079	AGSS – RECESSED	SE	Pipe ø 10 mm	GASUTLOPP
0732200080	O_2 – EXPOSED	SE	Pipe ø 10 mm	ANDNINGSOXYGEN
0732200083	N_2O – EXPOSED	SE	Pipe ø 10 mm	LUSTGAS
0732200081	AIR – EXPOSED	SE	Pipe ø 10 mm	ANDNINGSLUFT
0732200085	AIR-800 – EXPOSED	SE	Pipe ø 10 mm	INSTRUMENTLUFT
0732200084	CO_2 – EXPOSED	SE	Pipe ø 10 mm	MEDICINSK KOLDIOXID
0732200053	VAC – EXPOSED	SE	Pipe ø 10 mm	GASUTSUG
0732200086	AGSS – EXPOSED	SE	Pipe ø 10 mm	GASUTLOPP

For other configurations (DK, FI, NO) please contact Sales and Product Support

INSTALLATION TOOLS

Item No.	Denomination
MP_00345	QC installation keys
MP_00324	Button remover
MP_01157ST	Pendants/bedhead unit – installation tool
0732040	Installation plug (10 pcs)

TECHNICAL DATA	
Gases:	O_2, N_2O, Air, Air–800, CO_2, N_2, Ar, AGSS, VAC
Dimensions:	Height: 73 mm, Width: 73 mm, Depth: 63 mm
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4) – (-0,9) bar (vacuum)
Maximum pressure:	20 bar
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN ISO 9170-1 (Terminal units)
	Complies with EN ISO 9170-2 (Terminal units for AGSS)
	Complies with SS 8752430 (SS gas specific connections)
	present SIS HB 370 and HTM 02-01

BASIC DIMENSIONS

160

72.3

Ø50

72.3

Note!
Measurements in mm.

Split view

Recessed version

Exposed version

Installation plug

TERMINAL UNIT - MEDIUNIT (BSI)

Medical terminal units provide quick and easy connection of hospital ward gas equipment to the hospital gas source. The type of medical gasoutlets are decided by national standards in each country and sometimes from local requests in each hospital. GCE complies with ISO 7396 and national installation standards with secure products where every product is fully tested in production. Our Medical gas outlets are in accordance with ISO EN 9170-1, ISO EN 9170-2 international standards.
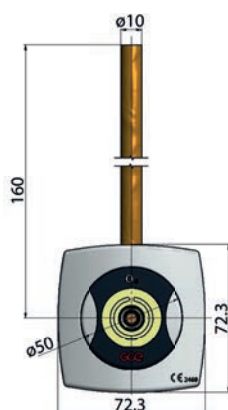
> Wall housing is compatible with all GCE MediUnit standards like DIN, BSI, SS, CZ
> All functional components are from brass
> Simple installation
> Fast connection and disconnection
> Designed for medical environment, small size and easy to clean
> Complies with colour coding and description by standard
> After 10 years it is possible to upgrade the units with a special upgrade pack
> Recessed and exposed versions
> Bed head installation version (customized solution on request)

Item No.	Denomination	Type	Marking
0732202001	O_2 – RECESSED	Pipe ø 10 mm	O_2
0732202013	N_2O – RECESSED	Pipe ø 10 mm	N_2O
0732202014	O_2/N_2O – RECESSED	Pipe ø 10 mm	O_2/N_2O
0732202011	AIR – RECESSED	Pipe ø 10 mm	AIR
0732202015	AIR-800 – RECESSED	Pipe ø 10 mm	AIR-800
0732202012	VAC – RECESSED	Pipe ø 10 mm	VAC
0732202016	O_2 – EXPOSED	Pipe ø 10 mm	O_2
0732202019	N_2O – EXPOSED	Pipe ø 10 mm	N_2O
0732202020	O_2/N_2O – EXPOSED	Pipe ø 10 mm	O_2/N_2O
0732202017	AIR – EXPOSED	Pipe ø 10 mm	AIR
0732202021	AIR-800 – EXPOSED	Pipe ø 10 mm	AIR-800
0732202018	VAC – EXPOSED	Pipe ø 10 mm	VAC

INSTALLATION TOOLS

Item No.	Denomination
MP_00345	QC installation keys
MP_00324	Button remover
MP_01157ST	Pendants/bedhead unit – installation tool
0732040	Installation plug (10 pcs)

BASIC DIMENSIONS

TECHNICAL DATA	
Gases:	O_2, N_2O, O_2/N_2O, Air, Air-800, VAC
Dimensions:	Height: 73 mm, Width: 73 mm, Depth: 63 mm
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4)–(-0,9) bar (vacuum)
Maximum pressure:	20 bar
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN ISO 9170-1 (Terminal units)
	Complies with EN ISO 9170-2 (Terminal units for AGSS)
	Complies with BS 5682 (BSI gas specific connections)
	present HTM 02-01

Note!
Measurements in mm.

TERMINAL UNIT - MEDIUNIT (CZ)

Medical terminal units provide quick and easy connection of hospital ward gas equipment to the hospital gas source. The type of medical gasoutlets are decided by national standards in each country and sometimes from local requests in each hospital. GCE complies with ISO 7396 and national installation standards with secure products where every product is fully tested in production. Our Medical gas outlets are in accordance with ISO EN 9170-1, ISO EN 9170-2 international standards.

> Wall housing is compatible with all GCE MediUnit standards like DIN, BSI, SS, CZ
> All functional components are from brass
> Simple installation
> Fast connection and disconnection
> Designed for medical environment, small size and easy to clean
> Complies with colour coding and description by standard
> After 10 years it is possible to upgrade the units with a special upgrade pack
> Recessed and exposed versions
> Bed head installation version (customized solution on request)

Recessed version

Item No.	Denomination	Type	Marking
0732203026	O_2 – RECESSED	Pipe ø 10 mm	O_2
0732203029	N_2O – RECESSED	Pipe ø 10 mm	N_2O
0732203027	AIR – RECESSED	Pipe ø 10 mm	AIR
0732203030	CO_2 – RECESSED	Pipe ø 10 mm	CO_2
0732203028	VAC – RECESSED	Pipe ø 10 mm	VAC
0732203031	O_2 – EXPOSED	Pipe ø 10 mm	O_2
0732203034	N_2O – EXPOSED	Pipe ø 10 mm	N_2O
0732203032	AIR – EXPOSED	Pipe ø 10 mm	AIR
0732203035	CO_2 – EXPOSED	Pipe ø 10 mm	CO_2
0732203033	VAC – EXPOSED	Pipe ø 10 mm	VAC

Exposed version

INSTALLATION TOOLS

Item No.	Denomination
MP_00345	QC installation keys
MP_00324	Button remover
MP_01157ST	Pendants/bedhead unit – installation tool
0732040	Installation plug (10 pcs)

Installation plug

TECHNICAL DATA	
Gases:	O_2, N_2O, Air, Air-800, CO_2, VAC
Dimensions:	Height: 73 mm, Width: 73 mm, Depth: 63 mm
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4)–(-0,9) bar (vacuum)
Maximum pressure:	20 bar
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN ISO 9170-1 (Terminal units)
	Complies with EN ISO 9170-2 (Terminal units for AGSS)
	Complies with CSN 85 2762 (Czech gas specific connections)
	present HTM 02-01

BASIC DIMENSIONS

ø10
160
ø50
72.3
72.3

Note!
Measurements in mm.

Recessed version

Exposed version - with lid

Exposed version - without lid
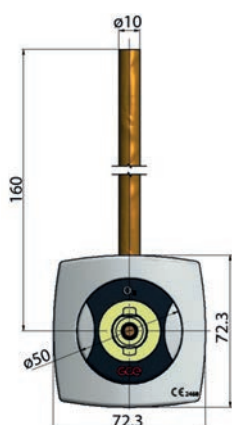

Maintenance valve

Installation plug

BASIC DIMENSIONS

Note!

Measurements in mm.

TERMINAL UNIT - MEDIUNIT (AFNOR)

Medical terminal units provide quick and easy connection of hospital ward gas equipment to the hospital gas source. The type of medical gasoutlets are decided by national standards in each country and sometimes from local requests in each hospital. GCE complies with ISO 7396 and national installation standards with secure products where every product is fully tested in production. Our Medical gas outlets are in accordance with ISO EN 9170-1, ISO EN 9170-2 international standards.

> All functional components are from brass
> Simple installation
> Fast connection and disconnection
> Air–800 with parking position
> Designed for medical environment, small size and easy to clean
> Complies with colour coding and description by standard
> Maintenance valve with filter
> Recessed and exposed versions
> Bed head installation version (customized solution on request)

Item No.	Denomination	Type	Marking
0732204017	O_2 – RECESSED	Pipe ø 10 mm	O_2
0732204018	N_2O – RECESSED	Pipe ø 10 mm	N_2O
0732204019	AIR – RECESSED	Pipe ø 10 mm	AIR
0732204020	AIR-800 – RECESSED	Pipe ø 10 mm	AIR-800
0732204021	CO_2 – RECESSED	Pipe ø 10 mm	CO_2
0732204022	N_2 – RECESSED	Pipe ø 10 mm	N_2
0732204023	VAC – RECESSED	Pipe ø 10 mm	VAC
0732204001	O_2 – EXPOSED	Pipe ø 10 mm	O_2
0732204008	N_2O – EXPOSED	Pipe ø 10 mm	N_2O
0732204003	AIR – EXPOSED	Pipe ø 10 mm	AIR
0732204009	AIR-800 – EXPOSED	Pipe ø 10 mm	AIR-800
0732204002	CO_2 – EXPOSED	Pipe ø 10 mm	CO_2
0732204010	N_2 – EXPOSED	Pipe ø 10 mm	N_2
0732204004	VAC – EXPOSED	Pipe ø 10 mm	VAC
0732204069	O_2 – EXPOSED - LID	Pipe ø 10 mm	O_2
0732204072	N_2O – EXPOSED - LID	Pipe ø 10 mm	N_2O
0732204070	AIR – EXPOSED - LID	Pipe ø 10 mm	AIR
0732204074	AIR-800 – EXPOSED - LID	Pipe ø 10 mm	AIR-800
0732204073	CO_2 – EXPOSED - LID	Pipe ø 10 mm	CO_2
0732204071	VAC – EXPOSED - LID	Pipe ø 10 mm	VAC

TECHNICAL DATA	
Gases:	O_2, N_2O, Air, Air–800, CO_2, N_2, VAC
Dimensions:	Height: 73 mm, Width: 73 mm, Depth: 63 mm
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4)–(-0,9) bar (vacuum)
Maximum pressure:	20 bar
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN ISO 9170-1 (Terminal units)
	Complies with EN ISO 9170-2 (Terminal units for AGSS)
	Complies with NF S 90-116 (Afnor gas specific connections)
	Complies with FD S 90-119 (Afnor Air-800 gas specific connection)
	present HTM 02-01

TERMINAL UNIT - MC70 (SS)

GCE gas outlets type MC 70 generation are self-sealing, i.e. they close automatically when a connected apparatus is removed. The gas outlets are furnished with a quick connection valve which means that the desired apparatus can be connected or disconnected by means of a simple one-step motion.
The MC 70 gas outlets may be recessed in the wall or mounted in a panel.
All MC 70 gas outlets have the same design but different colour codings and labels for different gases and of course gas specific non-interchangeable quick connection valves.
Special efforts have been made to make the maintenance of the gas outlets as easy as possible.
> No special tools
> Maintenance valve of ball-type
> Few components

Furthermore the MC70 are made according to standard SS EN 8752430 for quick connections and international standard SS EN ISO 9170-1 for terminal units. This means that the gas components are non-interchangeable in every maintenance connection point.
The gas outlet is delivered with separate packages for quick connection valve, valvebody, plastic cover with name plate, push-release plate etc. To make installation easier, the valve body has a tightening plug mounted for convenient pressure testing.
All necessary mounting details such as brackets, screws etc. are included in the packages. Detailed instructions are also part of the delivery. When mounting the gas outlet in a recessed way the gas outlet can be mounted either in the front wall or in the rear wall, depending on which is first set up. Recessed and exposed instalation set is necessary orded separately.
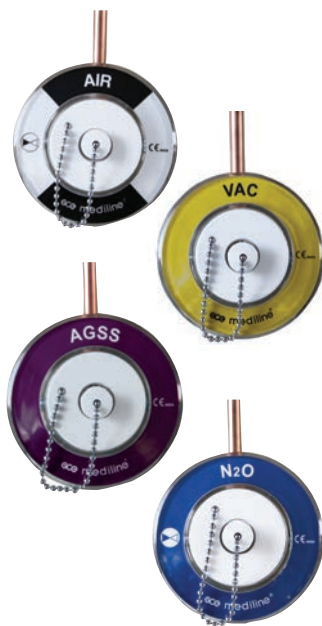
Item No.	Denomination	Type	Marking
325397281	O_2 – BEDHEAD	Pipe ø 8 mm	O_2
325397282	N_2O – BEDHEAD	Pipe ø 8 mm	N_2O
325397283	AIR – BEDHEAD	Pipe ø 8 mm	Air
325397284	VAC – BEDHEAD	Pipe ø 8 mm	VAC yellow
325397285	AGSS – BEDHEAD	Pipe ø 8 mm	AGSS purple
325397286	AIR–800 – BEDHEAD	Pipe ø 8 mm	Air–800
325397287	N_2 – BEDHEAD	Pipe ø 8 mm	N_2
325397288	CO_2 – BEDHEAD	Pipe ø 8 mm	CO_2

FOR RECESSED MOUNTING ADD

Item No.	Denomination
325396031	Recessed installation set

FOR EXPOSED MOUNTING ADD

Item No.	Denomination
325396034	Exposed installation set

INSTALLATION TOOL

Item No.	Denomination
325197290	Combi tool

SERVICE KIT

Item No.	Denomination
325197222	Sparepart kit

TECHNICAL DATA	
Gases:	O_2, N_2O, Air, Air–800, CO_2, N_2, Ar, AGSS, VAC
Dimensions:	Diameter: 90 mm, Depth: 60 mm
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4) – (-0,9) bar (vacuum)
Maximum pressure:	20 bar
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN ISO 9170-1 (Terminal units)
	Complies with EN ISO 9170-2 (Terminal units for AGSS)
	Complies with SS 8752430 (SS gas specific connections)
	present SIS HB 370

LABELS MC70

Item No.	Denomination	Languages
548234A26760	Circular Label O_2 White 85/55 TU SS	–
325113069	Circular Label MEDICINSK OXYGEN White 85/55 TU SS	SE
548234A26770	Circular Label N_2O Blue 85/55 TU SS	–
325113070	Circular Label DINITROGENOXID N_2O Blue 85/55 TU SS	DK
325113071	Circular Label MEDICINSK LUFT Black/White 85/55 TU SS	SE
548234A26780	Circular Label Air Black/White 85/55 TU SS	–
548234A37600	Circular Label Air–800 Black/White 85/55 TU SS	–
325113074P	Circular Label MEDICINSK KULDIOXID Grey 85/55 TU SS	DK
548234A26790	Circular Label VAC Red 85/55 TU SS	–
325113072	Circular Label VAC Red 85/55 TU SS	DK
548234A26800	Circular Label VAC Yellow 85/55 TU SS	–
548234A40850	Circular Label GASUTLOPP Blue/Brown 85/55 TU SS	SE
548234A40860	Circular Label GASUDLØB Blue/Brown 85/55 TU SS	DK
548234A40870	Circular Label GASSUTLØP Blue/Brown 85/55 TU SS	NO
548234A40880	Circular Label KAASUJEN POISTO Blue/Brown 85/55 TU SS	FI
548234A26810	Circular Label AGSS Purple 85/55 TU SS	–

TERMINAL UNIT - AFNOR

MEDICONNECT DC allow a safe and fast connection of medical devices to an existing pipeline system (flowmeter, vacuum regulators,…)
These terminal units can be manufactured to be either surface or recessed mounted, for a whole range of medical gases:

> oxygen
> medical air
> vacuum
> nitrous oxide
> nitrogen
> carbon dioxide

Item No.	Denomination	Type	Marking
K007061	O_2 – EXPOSED	Pipe ø 10 mm	O_2
K007062	VAC – EXPOSED	Pipe ø 10 mm	Vide
K007063	N_2O – EXPOSED	Pipe ø 10 mm	N_2O
K007064	AIR – EXPOSED	Pipe ø 10 mm	AIR
K007065	N_2 – EXPOSED	Pipe ø 10 mm	N_2
K007066	CO_2 – EXPOSED	Pipe ø 10 mm	CO_2
K007070	AIR-800 – EXPOSED	Pipe ø 10 mm	AIR-800
K007081	O_2 – RECESSED	Pipe ø 10 mm	O_2
K007082	VAC – RECESSED	Pipe ø 10 mm	VAC
K007083	N_2O – RECESSED	Pipe ø 10 mm	N_2O
K007084	AIR – RECESSED	Pipe ø 10 mm	AIR

INSTALLATION TOOL

Item No.	Denomination
K007091	Multi-functions Spanner

SERVICE KIT

Item No.	Denomination	Type
SPK36810038	Check valve assy, ø 7 mm	O_2 /N_2O /Air /CO_2
SPK36810040	Check valve assy, ø 8 mm	VAC /N_2 /O_2+CO_2
SPK36810041	Check valve assy, ø 6 mm	O_2+N_2 / O_2+N_2O
K292404	Housing check valve	All gases
K303099	Quick coupling sealing washer	All gases

TECHNICAL DATA	
Gases:	O_2, N_2O, Air, Air–800, CO_2, N_2, VAC
Dimensions:	65×65, Depth: 50 mm
Working pressure:	4–5 bar (breathing gases)
	7–10 bar (instrumental gases)
	(-0,4)–(-0,9) bar (vacuum)
Maximum pressure:	20 bar
Regulatory status:	Complies with Medical Devices Directive 93/42/EEC
	Complies with EN ISO 7396-1 (Central Gas Supply Systems)
	Complies with EN ISO 9170-1 (Terminal units)
	Complies with NF S90-116 (AFNOR gas specific connections)
	Complies with FD S90-119 (AFNOR – AIR-800 gas specific connections)

BED HEAD UNITS

Bed head units are primarily needed in patient rooms in medical facilities. Depending on their purpose, these units are equipped with medical gas outlets, high voltage and low voltage distribution of electricity, media sockets etc. Next to standard units GCE druvaMED is able to provide customized solutions regarding design and shape to meet the special demands for delivery rooms, recovery rooms and intensive care units. Part of the bed head units may be direct, indirect or night lighting, with fluorescent lamps or LED technology. The bed head units have a characteristic and ergonomic design that has proven itself for over more than 45 years now in medical facilities all over the world. The design can be customized to meet the overall appearance of the interior, architectural requirements and to the desires of the health care personnel. The materials used in the bed head units are designed to endure intense use and harsh conditions that can often be found in medical fields. This means the bed head units and available accessories are built to last and fit for the job!
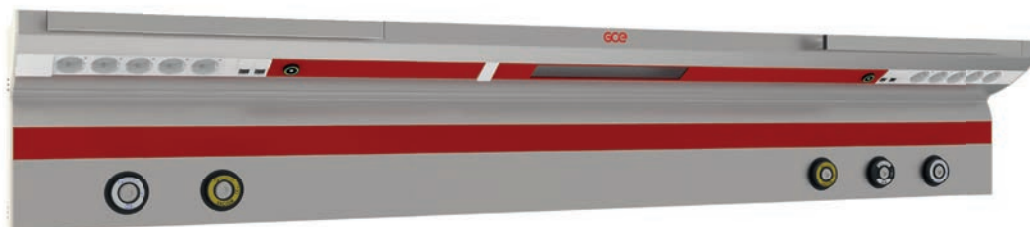
HORIZONTAL BED HEAD UNITS

RN07-DN1

RN07-DN2

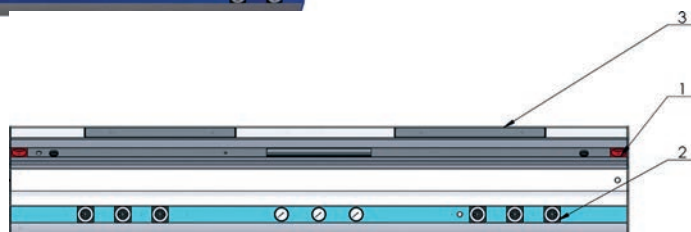| TECHNICAL DATA - HORIZONTAL BED HEAD UNIT WITH LIGHTING			
Length:	Standard for 1 bed 1650 mm		
Height / depth	RN07-DN0	RN07-DN1	RN07-DN2
(without medical rails with medical rails):	113 mm / 190 mm 113 mm / 225 mm	305 mm / 190 mm 305 mm / 225 mm	305 mm / 190mm 305 mm / 225mm
Weight (at a standard length for one bed):	15 kg	20 kg	25 kg
Load wall:	550 N, 110 Nm	600 N, 110 Nm	650 N, 110 Nm
Lighting (fluorescent tube or LED):	Direct		
	Indirect		
	Night		
Accessories:	Accessories GCE Mediline and others for ISO medical rail (10 x 25 mm)		
Load capacity medical rail:	max. 20 kg		
Electro-equipment:	Sockets of different colours with light even without the design according to national standards (BS, ...) jack bush, RJ45 data connector, telephone connections, panel nurse / patient etc.		
Gas outlets:	All types of GCE Mediunit gas outlets according to national standards (DIN, AFNOR, BS, SS ...), media leads from both sides from behind (rarely from top)		
Material design:	Anodized aluminium profiles with removable lids, which can be in colour RAL		

RN07-DN0

1 - high voltage electric sockets
2 - medical rail

RN07-DN1

1 - high voltage electric sockets
2 - medical gas quick outlets
3 - medical rail

RN07-DN2

1 - high voltage electric sockets
2 - medical gas quick outlets
3 - medical rail

RN07-DN3

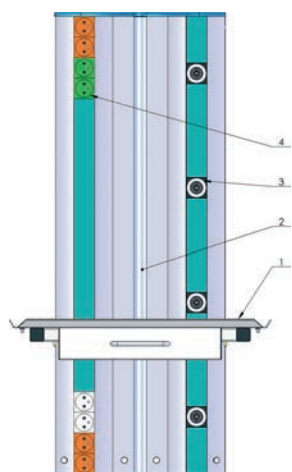| TECHNICAL DATA - HORIZONTAL BED HEAD UNIT WITHOUT LIGHTING		
Length:	Standard for 1 bed 1650 mm	
Height / depth	RN07-DN3 single channel	RN07-DN3
(without medical rails with medical rails):	190 mm / 80 mm 275 mm / 130 mm	370 mm / 80 mm 455 mm / 130 mm
Weight (at a standard length for one bed):	16 kg	25 kg
Load wall:	1050 N, 110 Nm	1050 N, 110 Nm
Accessories:	Accessories GCE Mediline and others for ISO medical rail (10 x 25 mm)	
Load capacity medical rail:	max. 20 kg	
Electro-equipment:	Sockets of different colours with light even without the design according to national standards (BS, ...) jack bush, RJ45 data connector, telephone connections, panel nurse / patient etc.	
Gas outlets:	All types of GCE Mediunit gas outlets according to national standards (DIN, AFNOR, BS, SS ...), media leads from both sides from behind (rarely from top)	
Material design:	Anodized aluminium profiles with removable lids, which can be in colour RAL	

RN07-DN3, single channel

RN07-DN3, single channel, design for child care units

RN07-DN3Z, flush mounted version

VERTICAL BED HEAD UNITS

TECHNICAL DATA - VERTICAL BED HEAD UNIT WITHOUT LIGHTING (SUPPLY COLUMNS)		
Length:	Standard 1000 mm	
Width / depth:	ZS07	ZS07L
	370 mm / 150 mm	165 mm / 260 mm
Weight (at a standard length):	30 kg	45 kg
Load wall:	900 N, 200 Nm	1450 N, 1200 Nm
Accessories:	Accessories GCE Mediline and others for rod *28	
Load capacity stainless steel rod:	max. 40 kg	max. 60 kg
Electro-equipment:	Sockets of different colours with light even without the design according to national standards (BS, ...) jack bush, RJ45 data connector, telephone connections, panel nurse / patient etc.	
Gas outlets:	All types of GCE Mediunit gas outlets according to national standards (DIN, AFNOR, BS, SS ...), media leads from both sides from behind (rarely from top)	
Material design:	Anodized aluminium profiles with removable lids, which can be in colour RAL	

ZS07

1 - shelf
2 - rod for shelves and other accessories
3 - medical gas quick outlets
4 - high voltage electric sockets

ZS07

ZS07L

COLOUR TABLE RAL

RAL 1000 Green Beige	RAL 1013 Oyster White	RAL 1017 Saffron Yellow	RAL 6019 Pastel Green	RAL 6025 Fern Green	RAL 6027 Light Green
RAL 1018 Zink Yellow	RAL 1028 Melon Yellow	RAL 1034 Pastel Yellow	RAL 7035 Light Grey	RAL 8023 Orange Brown	RAL 9002 Grey White
RAL 2003 Pastel Orange	RAL 3015 Light Pink	RAL 5012 Light Blue	RAL 9003 Signal White	RAL 9005 Jet Black	RAL 9006 White Aluminium
RAL 5024 Pastel Blue	RAL 6002 Leaf Green	RAL 6018 Yellow Green	RAL 9010 Pure White	RAL 9016 Traffic White	RAL 3020 Traffic Red

For more information and variants please contact our sales and product support

MEDICAL BEAMS

Medical beams are a special kind of bed head unit. Instead of attached to the wall, a medical beam is mounted to the ceiling for maximum flexibility for patient positioning. Medical beams, like wall mounted bed head units, can be equipped with medical gas outlets and electricity supply at optimal distance to the patients bed. They are mainly used in specialized medical workplaces like CCU, ICU and operating theatres.

The medical beam can be fitted with a large range of accessories: Spot lamps placed on a medical rail, refracted arms, telescopic rods with curtain, medical rails, positional (night) lights or other accessories depending on the needs and requirements of the workplace concerned.

Thanks to its design it ensures an optimal use of space on the one hand, as well as being safe for the patient and the medical staff on the other.

TECHNICAL DATA - MEDICAL BEAMS

	ZMP07	ZMP07 double side	ZMP07 laminar
Length profile with equipment standard for 1 bed:	1950 mm	1950 mm	3000 mm one side
Height / depth without legs (without medical rails with medical rails):	320 mm / 280mm 320 mm / 315mm	320 mm / 460mm 320 mm / 530mm	320 mm / 280mm 320 mm / 315mm
Length of legs:	max. 2000 mm		
Weight (at a standard length for one bed):	max 150 kg	max 175 kg	max 300 kg
Load ceiling (from one leg):	5300 N, 2100 Nm	8000 N, 2100 Nm	5300 N, 2100 Nm
Lighting (fluorescent tube or LED):	Direct		
	Indirect		
	Night		
Accessories:	Accessories GCE Mediline and others for ISO medical rail (10 x 25 mm) and shelving rods *28		
Load capacity medical rail:	max. 20 kg		
Electro-equipment:	Sockets of different colours with light even without the design according to different national standards (BS, ...) jack bush, RJ45 data connector, telephone connections and etc.		
Gas outlets:	All types of GCE Mediunit gas outlets according to national standards (DIN, AFNOR, BS, SS ...)		
Material design:	Steel with powder coating surface / Anodized aluminium profiles with removable lids, which can be in colour RAL		
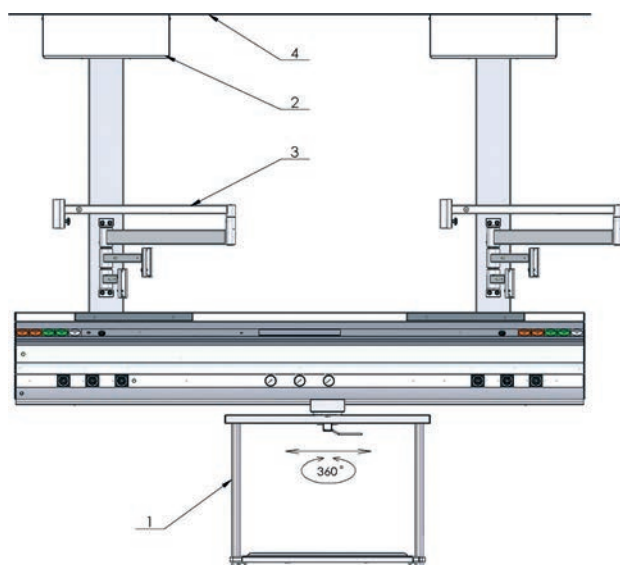
1 - rotary roller with shelf
2 - ceiling cover
3 - arms for accessories
4 - suspended ceiling depth

COLOUR TABLE RAL

RAL 1000 Green Beige	RAL 1013 Oyster White	RAL 1017 Saffron Yellow	RAL 6019 Pastel Green	RAL 6025 Fern Green	RAL 6027 Light Green
RAL 1018 Zink Yellow	RAL 1028 Melon Yellow	RAL 1034 Pastel Yellow	RAL 7035 Light Grey	RAL 8023 Orange Brown	RAL 9002 Grey White
RAL 2003 Pastel Orange	RAL 3015 Light Pink	RAL 5012 Light Blue	RAL 9003 Signal White	RAL 9005 Jet Black	RAL 9006 White Aluminium
RAL 5024 Pastel Blue	RAL 6002 Leaf Green	RAL 6018 Yellow Green	RAL 9010 Pure White	RAL 9016 Traffic White	RAL 3020 Traffic Red

For more information and variants please contact our sales and product support

CEILING PENDANT

Ceiling pendants are designated for supply of medical gases, electric current and low current from the ceiling to the workplace of the medical specialists. They are primarily used in operating theatres, ARD, and ICU. The rotary pendant is terminated by a source column and a removable shelf is applied as a holder of medical devices.

Rotary joints combined with a horizontal and swing arm can be controlled to any intermediate position within a room using an electric drive. All the rotary joints of the arms are thereby fitted with manually operated position interlock.
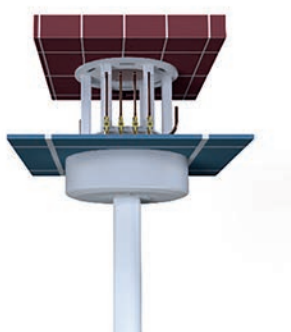

PS07

OK07-16

OK07-28

OK07-57, source column L

TECHNICAL DATA - CEILING PENDANTS WITH ROTARY AND HEIGHT ADJUSTABLE ARMS		
Total length of arm:	OK07-55	OK07-57
	800 mm	1200 mm 1400 mm 1600 mm 1800 mm
Length source column with medical rails:	Source column A	Source column L
	790 mm 890 mm 990 mm 1090 mm	690mm 1090 mm 1290 mm 1590 mm
Width / Depth source column with medical rails and rods (column L):	410mm / 190mm	448 mm/ 328 mm
Weight:	205 kg	240 kg
Load ceiling:	3600 N, 3600 Nm	4000 N, 5500 Nm
Accessories:	Accessories GCE Mediline and others for ISO medical rail (10 x 25 mm) and shelving rods *28	
Electro-equipment:	Sockets of different colours with light even without the design according to national standards (BS, ...) jack bush, RJ45 data connector, telephone connections and etc.	
Gas outlets:	All types of GCE Mediunit gas outlets according to national standards (DIN, AFNOR, BS, SS ...)	
Material design arm / source column:	Steel with powder coating surface / Anodized aluminium profiles with removable lids, which can be in colour RAL	

OK07-55, source column L
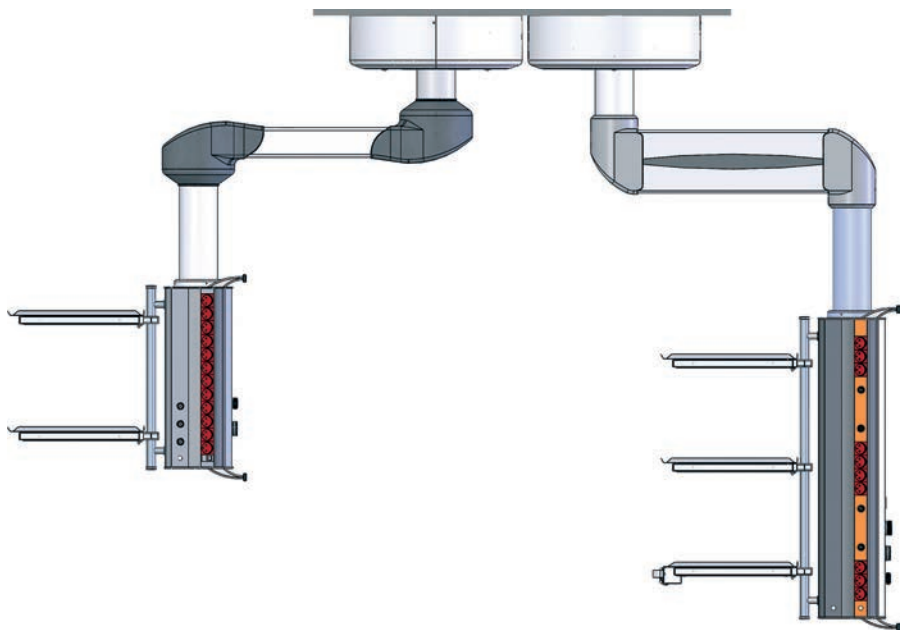
**Tandem option of ceiling pendants,
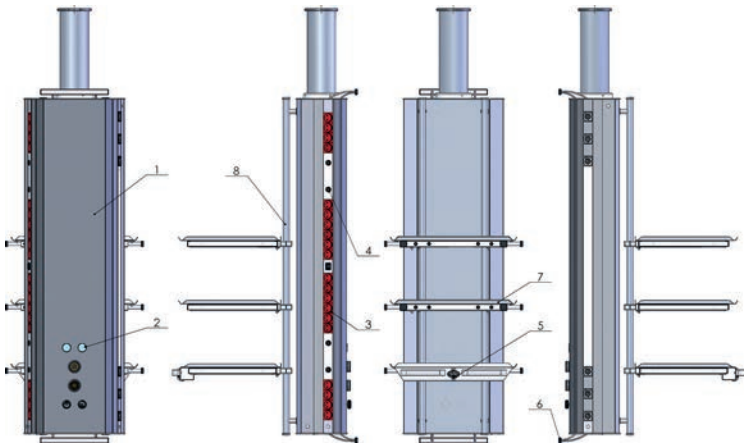left side OK07-16 (not height adjustable), right side OK07-55**

OK07-16, source column A

TECHNICAL DATA - CEILING PENDANTS WITH ROTARY ARMS OK07 AND SOURCE COLUMNS A AND L			
Type of arms:	OK07-05	OK07-16	OK07-28
Length arms:	According to customer requirements	450 mm 600 mm 800 mm 1000 mm	2x 450 mm 2x 600 mm 2x 800 mm max. total length 1800 mm
Length source head with medical rails:	Source column A		Source column L
	790 mm 890 mm 990 mm 1090 mm		690 mm 1090 mm 1290 mm 1590 mm
Width / Depth source column with medical rails and rods (column L):	410 mm / 190 mm		448 mm / 328 mm
Weight ceiling pendant:	125 kg	175 kg	225 kg
Load ceiling:	3500 N, 700Nm	3300 N, 2900 Nm	3800N, 9500 Nm
Accessories:	Accessories GCE Mediline and others for ISO medical rail (10 x 25 mm) and shelving rods *28		
Electro-equipment:	Sockets of different colours with light even without the design according to national standards (BS, ...) jack bush, RJ45 data connector, telephone connections and etc.		
Gas outlets:	All types of GCE Mediunit gas outlets according to national standards (DIN, AFNOR, BS, SS ...)		
Material design arm / source column:	Steel with powder coating surface / Anodized aluminium profiles with removable lids, which can be in colour RAL		

OK07-28, source column L

1 - back column cover
2 - air motor outlet and AGSS outlet
3 - high voltage electrical outlet
4 - jack bushes (earthing)
5 - arm motion control
6 - medical rail
7 - shelf
8 - rod for shelves and other accessories

Source column L

OK07-28, source column Z

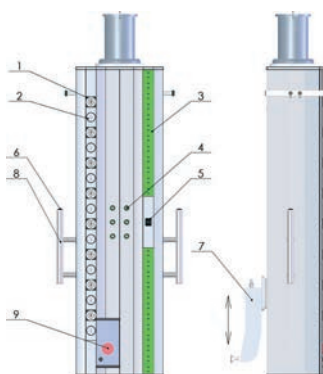| TECHNICAL DATA - CEILING PENDANTS WITH ROTARY ARMS OK07 AND SOURCE COLUMN Z			
Type of arms:	OK07-05	OK07-16	OK07-28
Length arms:	According to customer requirements	450 mm 600 mm 800 mm 1000 mm	2x 450 mm 2x 600 mm 2x 800 mm max. total length 1800 mm
Load ceiling:	3600 N, 3600 Nm	3300 N, 2900 Nm	3800N, 9500 Nm
Weight ceiling pendant:	125 kg	175 kg	225 kg
Length source column:	1300 mm		
Width / Depth source column with side handles:	540mm / 395mm		
Load holder of anaesthesiology machine:	max. 200 kg		
Accessories:	Accessories GCE Mediline and others for ISO medical rail (10 x 25 mm)		
Electro-equipment:	Sockets of different colours with light even without the design according to national standards (BS, ...) jack bush, RJ45 data connector, telephone connections and etc.		
Gas outlets:	All types of GCE Mediunit gas outlets according to national standards (DIN, AFNOR, BS, SS ...)		
Material design arm / source column:	Steel with powder coating surface / Anodized aluminium profiles with removable lids, which can be in colour RAL		

PS07, source column A

TECHNICAL DATA - STATIONARY CEILING PENDANT PS07	
Total length leg:	max. 1000 mm
Length source head (without / with medical rails):	700 mm / 790 mm 800 mm / 790 mm 900 mm / 990 mm 1000 mm / 1090 mm
Width / Depth source head:	410 mm / 190 mm
Weight:	125 kg
Load ceiling:	2800 N, 700 Nm
Accessories:	Accessories GCE Mediline and others for ISO medical rail (10 x 25 mm) and shelving rods *28
Electro-equipment:	Sockets of different colours with light even without the design according to national standards (BS, ...), jack bush, RJ45 data connector, telephone connections and etc.
Gas outlets:	All types of GCE Mediunit gas outlets according to national standards (DIN, AFNOR, BS, SS ...)
Material design arm / source column:	Steel with powder coating surface / Anodized aluminium profiles with removable lids, which can be in colour RAL

Source column Z

1 - medical gas quick outlets
2 - gauges
3 - high-voltage electric sockets
4 - jack bushes (earthing)
5 - lift control of machine holder
6 - arm motion control
7 - holder of anesthesiology machine
8 - handle with control button
9 - air motor outlet and AGSS outlet

COLOUR TABLE RAL

RAL 1000 Green Beige	RAL 1013 Oyster White	RAL 1017 Saffron Yellow	RAL 6019 Pastel Green	RAL 6025 Fern Green	RAL 6027 Light Green
RAL 1018 Zink Yellow	RAL 1028 Melon Yellow	RAL 1034 Pastel Yellow	RAL 7035 Light Grey	RAL 8023 Orange Brown	RAL 9002 Grey White
RAL 2003 Pastel Orange	RAL 3015 Light Pink	RAL 5012 Light Blue	RAL 9003 Signal White	RAL 9005 Jet Black	RAL 9006 White Aluminium
RAL 5024 Pastel Blue	RAL 6002 Leaf Green	RAL 6018 Yellow Green	RAL 9010 Pure White	RAL 9016 Traffic White	RAL 3020 Traffic Red

For more information and variants please contact our sales and product support

COMPACT SPRING BALANCED ARMS

Ceiling pendants with compact spring balanced swivel arms have a wide range of usage: they are holders of surgical luminaire, cameras, monitors, X-ray apparatus safety screens, and many other specialized devices.
The wall mounted version can be used even for carrying televisions in patient´s room.

SPR 10- 1 (SINGLE)

- Load capacity: max 28 kg
- Weight (without spacer): 30 kg
- Adjusting the compact arm height [°]: + 35, - 55
- Rotation range in axes a, b, c [°]: 360 / (320, 334, 325)*
- Surface finish: powder coating RAL 9002, 9010
- Interrupted cable / uninterrupted cable – slip ring*

SPR 10- 2 (DUO)

- Load capacity: max 56 kg
- Weight (without spacer): 42 kg
- Adjusting the compact arm height [°]: + 35, - 55
- Rotation range in axes a, b, c [°]: 360 / (320, 334, 325)*
- Surface finish: powder coating RAL 9002, 9010
- Interrupted cable / uninterrupted cable – slip ring*

SPR 10- 3 (TRIO)

- Load capacity: max. depending on the length of the arms and load distribution
- Weight (without spacer): max 55 kg
- Adjusting the compact arm height [°]: + 35, - 55
- Rotation range in axes a, b, c [°]: 360 / (320, 334, 325)*
- Surface finish: powder coating RAL 9002, 9010
- Interrupted cable / uninterrupted cable – slip ring*

SPR 10-4 (QUATRO)

- Load capacity: max. depending on the length of the arms and load distribution
- Weight (without spacer): max 65 kg
- Adjusting the compact arm height [°]: + 35, - 55
- Rotation range in axes a, b, c [°]: 360 / (320, 334, 325)*
- Surface finish: powder coating RAL 9002, 9010
- Interrupted cable / uninterrupted cable – slip ring*

SPR 10-1W (SINGLE-WALL)

- Load capacity: max. depending on the length of the arms and load distribution
- Weight: 25 kg
- Adjusting the compact arm height [°]: + 35, - 55
- Rotation range in axes a, b, c [°]: 180, 360, 360 /(320, 334, 325)*
- Surface finish: powder coating RAL 9002, 9010
- Interrupted cable / uninterrupted cable – slip ring*

* In the case where the arms are equipped with devices requiring uninterrupted cable wiring, the range of rotation in the axes is limited by the stops.

SPR 11- 1 (SINGLE)

- Load capacity: max. depending on the length of the arms and load distribution
- Weight (without spacer): 14 kg
- Adjusting the compact arm height [°]: + 35, - 55
- Rotation range in axes a, b, c [°]: 360 / (320, 334, 325)*
- Surface finish: powder coating RAL 9002, 9010, 9005
- Interrupted cable / uninterrupted cable – slip ring*

SPR 11- 2 (DUO)

- Load capacity: max. depending on the length of the arms and load distribution
- Weight (without spacer): 20 kg
- Adjusting the compact arm height [°]: + 35, - 55
- Rotation range in axes a, b, c [°]: 280, 360, 360 /(280, 330, 330)*
- Rotation range in axes a, b, c lower arm [°]: 360, 360, 360 (330,330, 330)*
- Surface finish: powder coating RAL 9002, 9010, 9005
- Interrupted cable / uninterrupted cable – slip ring*

SPR 11- 1W (SINGLE-WALL)

- Load capacity: max. depending on the length of the arms and load distribution
- Weight: 9 kg
- Adjusting the compact arm height [°]: + 35, - 55
- Rotation range in axes a, b, c [°]: 180, 360, 360 (180, 334, 325)*
- Surface finish: powder coating RAL 9002, 9010, 9005
- Interrupted cable / uninterrupted cable – slip ring*

* In the case where the arms are equipped with devices requiring uninterrupted cable wiring, the range of rotation in the axes is limited by the stops.

For more information please contact our sales and product support

ACCESSORIES

Accessories for bed head units, medical beams and ceiling pendants are used for retrofitting and enhancement of the utility value. They are modifiable and combinable exactly according to user requirements.

RAMP WITH BAR FOR COMPACT SPRING BALANCED ARMS

Ramps with bars for the compact spring balanced arms SPR10 and SPR11 are a significant help everywhere, where a patient's health condition requires simultaneous use of many medical devices. The medical devices can be fitted on the bar beneath the ramp, thanks to which they are hanging in the air and therefore not taking space on the floor. Its advantage is further the extension of the electrical peripheries. It is possible to place them either on the wall, or on the installed medical beams.

EXAMINATION LED LAMP

A small light with LED chip illumination and cone-shaped shade serves for basic examinations within inpatient rooms. The randomly movable arm is very advantageous. It is not limited by individual joints and therefore enables the user to set the lamp to the most favourable positions.

SHELF WIRE BASKETS

Medical work places require storage areas for surgical instruments and other medical material needed for surgeries or patient care. Shelf systems can be executed as pendant beneath the bed head unit, bridge or rotary complex. Baskets can be combined with the shelf systems based on the needs of the customer. Shelf wire baskets are only available in stainless steel finishing.

MEDICAL RAILS FOR INFUSION AND SHELF BARS

Not only all medical source units can be equipped with universal medical rails, but other specialized medical workplaces can be equipped with them, too. With the use of holders, bearing bars for baskets and infusion hangers, shelves and other accessories can be attached to the rails.

MEDICAL RAILS FOR THE WALLS

Not only all medical source units can be equipped with universal medical rails, but other specialized medical workplaces can be equipped with them, too. With the use of holders, bearing bars for baskets and infusion hangers, shelves and other accessories can be attached to the rails.

MONITOR HOLDER

The monitor holder is used with the holders VESA 75/75 and VESA 100/100 to attach the monitor onto compact spring balanced arms SPR10 and SPR11.
The monitor holder is available as variant with or without a shelf for keyboard and mouse.

HANGING SHELF WITH OR WITHOUT DRAWER, WITH MEDICAL RAILS

Medical departments need, in addition to the supply of medical gases and electricity through ceiling pendants, bed head units and medical beams, storage space for surgical instruments and other medical equipment and material. Shelf systems can be designed as suspension, bridge or swiveling solution. Other mounting possibilities are the medical rails or the rods. Shelf systems can be modified according to the users requirements, load capacity and dimesions of the shelves are selectable. They are available in classic tin design with powder coated surface in color according to the customer or in stainless steel.

SHELF ON MEDICAL RAIL

A shelf on a medical rail is used as swap space for ordinary medical supplies and equipment which is for medical personnel immediately at hand. The shelf can be mounted to standard medical rails.

REFRACTED ARMS

Refracted hangers are a huge help wherever the patients condition requires the use of many devices simultaneously. Apparatuses can be placed on the hangers that are higher in the air and do not take up space on the ground. The refracted arms can hold many other accessories, especially infusion rods, holders for infusion pumps, dispensers and monitors. They can be located both on the wall as well as on already installed end units of medical gases.

INFUSION RACK

Infusion racks serve to support up to four infusion bags and bottles. They can be attached to all types of Medical Beams, Ceiling Pendants and bed head units. Their application is wide and is an integral part of the end units of medical gases in intensive care and other departments.

CABLE HOLDER FOR MEDICAL RAIL

The cable holder with attachement to a medical rail is used to organize cable bundles and oxygen hoses next to medical beds. It is available in two sizes.

IMPORTANT INFORMATION AND RECOMMENDATIONS

SAFETY INSTRUCTIONS

The objective of the company GCE is not only customer satisfaction with reliable products but also safe operation of all equipment associated with medical gases. Therefore is it necessary to observe all instructions for the use and, particularly, the following safety principles:

1. Concentrated oxygen should not come into contact with oils, grease and impurities to prevent its self-ignition.
2. Pressure cylinders shall be always secured against fall, exposure to heat and manipulation by unauthorized persons.
3. Smoking and open fire manipulations are strictly prohibited in the proximity of pressure cylinders or gas equipment.
4. Personnel working with classified gas equipment should be properly trained.

CERTIFICATION

GCE has introduced and certified its quality management system according to ISO13485:2003 for medical devices.
The products meet the requirements of the EU Directive 93/42/EEC and they are certified and provided with the CE mark.
Any requirements for other technical parameters shall be discussed with the manufacturer.

CERTIFICATES

NOTES

NOTES
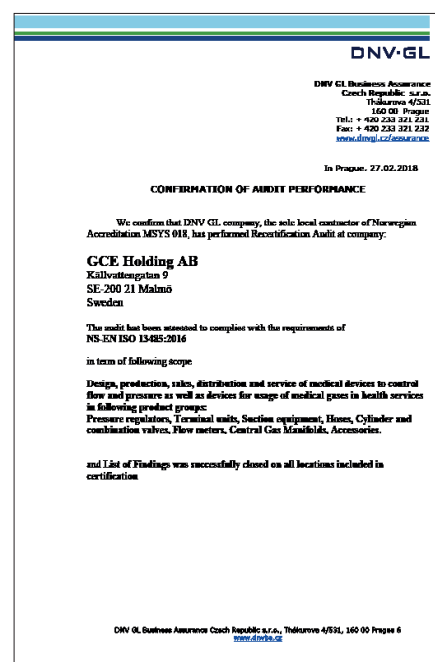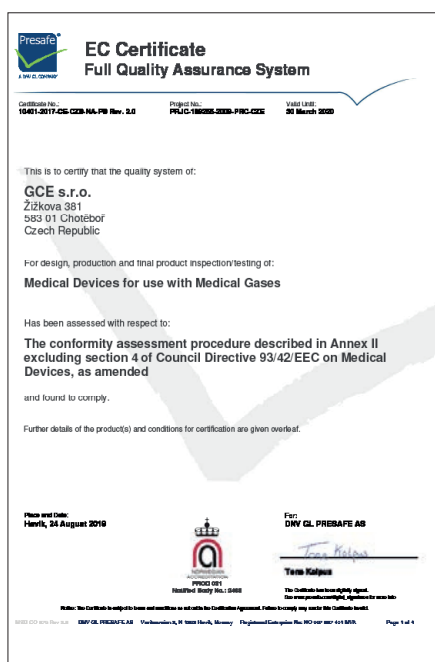
REGIONAL OFFICES

EUROPE

CZECH REPUBLIC
FRANCE
GERMANY
HUNGARY
ITALY
POLAND
PORTUGAL
ROMANIA
SPAIN
SWEDEN
UNITED KINGDOM & IRELAND

AMERICA

LATIN AMERICA
MEXICO
USA

ASIA

CHINA
INDIA
RUSSIA

visit: **www.gcegroup.com**

GCE Group
www.gcegroup.com

Art. Nr. CATDRMED2018. Alterations are subject to change without notice. 01102018kk© GCE 2018

GCE®

Gas Control Equipment