

# FLOTEC INC

Web Site: <http://www.floteco2.com>

7625 West New York Street 317-273-6960  
Indianapolis, Indiana 46214-4911

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The FLOTEC INGAGE Series high pressure medical air regulator w/ INGAGE is designed to provide a constant flow of medical air at approximately 50 PSI. In addition, the FLOTEC INGAGE Series regulator can simultaneously deliver a measured flow through the twelve-position selector. The FLOTEC regulator is preset to deliver approximately 50 PSI through the optional DISS check valve(s) or the flow selector outlet which can be either a hose barb or a DISS fitting. Every FLOTEC INGAGE series regulator has an internal safety relief valve to prevent over pressurization of the regulator. The main connections available is the CGA 347 nut and nipple (connector). FLOTEC products contain no latex or latex byproducts.

**SPECIFICATIONS:**

Operating Pressure: 250-5500 PSIG

Outlet Pressure: Nominal 50 PSIG

Flow Capacity: Minimum: 1 LPM, Maximum: 60 LPM  
thru the 12 position selector

100 LPM thru optional DISS-1160  
check valve(s)

Inlet Configuration:

CGA 347 Nut and Nipple (Connector)

Outlet Configuration:

Hose Barb  
DISS-1160 Fitting  
DISS-1160 Check Valve

**REPLACEMENT PARTS:**

DISS-1160 Fitting

Diss-1160 Check Valve

Hose Barb

Piston/Manifold sub-assembly

O-Ring for CGA 347 Nipple (Connector)

Flow Meter Assembly

**INSTALLATION: CGA 347 Connector:** Mount the regulator to a CGA 347 cylinder valve. Be careful to avoid cross-threading the connection. To achieve a proper seal for threaded cylinder connections, which use a gasket, or O-Ring be sure the gasket or O-Ring is properly positioned before attaching the regulator to the valve.

**INSTALLATION: Pipe Connector:** Use only Teflon tape on the threads as a sealant.

**INSTALLATION:** The Flotec regulator has an internal safety relief valve to prevent over pressurization of the regulator. Point of installation, local and state regulations may require venting of the relief valve to exterior of the use/storage area. The regulator can be placed in an enclosed, ventilated closet, or manned by an operator who can shut off the tank if necessary.

**PREVENTIVE MAINTENANCE:** All regulators should be tested and cleaned periodically to insure proper performance. The frequency of testing should be established according to usage, but it should be performed at least once per year to evaluate for damage, contamination, wear and performance.

**LEAK TEST:** Attach the regulator to an appropriate cylinder, turn the flow selector to "OFF" and slowly open the cylinder valve. Apply a compatible leak test solution to all outlets, fittings and regulator body connections to check for bubbles. Tighten fittings as required to eliminate all external leaks. DO NOT over tighten threaded connections. Close cylinder valve.

**WARNING:** Disassembly, assembly, and testing of regulators should be performed only by trained personnel. The work area must be free of hydrocarbon contaminants and residues because of the danger of spontaneous combustion when residues are exposed to gaseous oxygen.

**WARNING:** If the internal safety relief valve should open because of a malfunction, large quantities of gas can be released. Some Medical gases can be dangerous. Large quantities of some medical gases can displace the oxygen out of a room which can cause a person to faint and/or asphyxiate. Consult CGA standard # G-8.1 for other cautions.

## SAFETY WARNINGS:

1. The use of FLOTEC high pressure medical air regulators for gases other than compressed medical air of up to 3000 psi is expressly prohibited by FLOTEC and the user must assume all liabilities.
2. Use no oil or grease.
3. Never administer oxidizing gases when smoking or when near an open flame.
4. Never use high pressure medical gases from a cylinder without reducing the pressure through a suitable regulator intended for that gas.
5. Make sure that the threaded fittings on regulators or the indexing pins on yokes are properly mated for the gas intended. Never attempt to force an incompatible connection.
6. Never permit compressed high pressure medical air to enter a regulator suddenly. Always open the cylinder valve slowly.
7. Fully open the cylinder valve when a regulator is attached and in use.
8. Never leave a cylinder valve open with regulator attached when regulator is not in use.
9. Before a regulator is removed from a cylinder, fully close the cylinder valve and release all gas from the regulator.
10. Never interchange regulators, hoses, or other equipment with similar equipment intended for use with other gases. Pressure regulators and related fittings should never be handled with oily or greasy hands or gloves. Never hold hand over the outlet(s) to test for the presence of pressure.
11. Never use high pressure medical air as a pressure medium to purge obstructed pipelines or equipment, to operate pneumatic tools, or to build up pressure in any tanks.
12. Do not stand in front of regulator outlets when opening the cylinder valve in case foreign particles are present which could cause a hazardous malfunction of the regulator.
13. High Pressure medical air therapy may be critical treatment. The use of the regulator should be regulated in strict accordance with the prescription and instructions of a physician.
14. Secure cylinders to wall, stand, or cart in accordance with local fire codes.
15. The regulator is equipped with an internal safety relief valve, which is designed to protect the regulator. Downstream equipment used in conjunction with the regulator should be equipped with suitable safety valves to prevent over pressurization and damage.
16. High pressure medical air must never be allowed to contact oil, grease or other petroleum-based substances. Therefore, do not use oil or grease on medical air regulators, cylinders, valves or other related equipment. Do not use or store medical air equipment near excessive heat (>125 F or 51.5 C) or open flame.
17. CAUTION: Do not use organic-based threaded sealants on any portion of the regulator. Use only Teflon threaded-sealing tape or oxygen service compound.
18. Never leave pressurized medical air within a regulator. Always purge residual gases when not in use.
19. The regulator must be tight to prevent O-ring extrusion. (When using CGA 347 Nipple-connector with \ O-ring).
20. The regulator must be tight to prevent leaking around the CGA 347 Nipple- connector and those using a tip seal.
21. The regulator must NOT be twisted or turned when it is tight on the cylinder valve and/or under pressure to prevent O-ring or tip seal abrasion.

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## Declaration of Conformity

### Product identification

Product name : Regulators & Flow meters, Regulators with Flow meter.  
Brand : Flotec  
Cat. Number : RXXXX-XXXXX, FXXX-XXXXX, MXXXX-XXXXX, DXXXX-XXXXX  
Batch/Serial Nr. : Numbered Sequentially

### Manufacturer

Name : Flotec  
Address : 7625 West New York Street  
Indianapolis, IN 46214-4911  
Country : USA  
Representative : Brian Davidson  
Tel : +1 317-273-6960  
Fax : +1 317-273-6979

### Authorized Representative in Europe

Name : Emergo Europe  
Address : Molenstraat 15  
2513 BH  
The Hague  
Country : The Netherlands  
Tel : (31) (0) 70 345-8570  
Fax : (31) (0) 70 346-7299

### Notified Body

Name : UL International (UK) Ltd  
Address : Wonersh House, The Guildway  
Old Portsmouth Road  
Country : UK- Guildford, Surrey, GU13 1LR  
I.D. Number : CE 0843

### Means of conformity

Flotec Inc. declares that the product listed has been classified as Class IIb - Annex IX, Rule 11 and is in conformity with the essential requirements and provisions of Council Directive: 93/42/EEC

### Signature

Place and date : Flotec Inc 09-11-14

Signature : 

Name : Brian Davidson  
[Name and Signature of authorized person within organization]

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## Symbols

### Symbols

PSI  
KG/CM2  
BAR  
MPA  
HP  
LPM  
SN



### Definition

POUNDS PER SQUARE INCH  
KILOGRAMS PER SQUARE CENTIMETER  
KILOGRAMS PER SQUARE CENTIMETER  
MEGA PASCAL  
HIGH PRESSURE PORT  
LITERS PER MINUTE  
SERIAL NUMBER

USE NO OIL



- CONSULT INSTRUCTIONS FOR USE

EC REP -

AUTHORISED REPRESENTATIVE IN THE EUROPEAN COMMUNITY