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Gas receiver Type RA-GA B

Catalogue N°: 07RAGACATR00-E

Revision: 00 of 03.12.2001



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Specification N° **SPR/**

07RAGABGENR00-E

Product:

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Title:

Function and construction, functional and operating features

Revision N°

00 - 12.02.01

1.0 Specification of Construction, Functional And Operating Features

The specification outlines the function and gives the construction and operating features of the device in reference as well as the environmental and operating conditions for which the device is designed. These last depend mainly on the compatibility of the materials, components and finishing with the environmental and operating conditions of the transformer. The compatibility limits are indicated for the different executions.

2.0 Function

The Gas Receiver allows to descend the gases accumulated in the Buchholz relay at man's height in order to sample them more easily. It also allows to inject air or gas into the Buchholz relay, operating at man's height, in order to test the contacts.

The analysis of the gases accumulated inside the Buchholz relay as well as the speed of accumulation give a rough indication about the functionality of the transformer.

3.0 Construction Features

3.1 Materials and Components

- Body and bottom plate are made of aluminium casting;
- Tempered glass windows;
- Window frames are made of glass reinforced Nylon;
- Nickel coated brass cocks, plugs and compression fittings;
- Gaskets as specified for the different executions;
- External screws of stainless steel;

3.2 Reference Drawings

Assembly and overall dimensions:

N° 7.060.500

3.3 Tightness and Resistance to Pressure

- Oil tight to transformer oil at 100°C and 1 bar;
- Mechanical and electrical resistance to vacuum (10 torr);
- Mechanical resistance to pressure up to 4 bar.

3.4 Painting and Protection against Corrosion

Casting and bottom plate are painted internally and externally by one coat of epoxy primer and externally by one finishing coat of polyurethane paint, final colour RAL 7031. The primer paint is resistant to transformer oil up to 120°C

The painting cycle is agreed by the Italian electricity authority ENEL.

The specification N° 00VERRxx describes in details all the relevant characteristics of the painting.

4.0 Installation and Operation

4.1 Installation

The gas receiver Type RAGA B is mounted at an easily accessible part of the transformer and connected by means of a copper pipe and the compression fitting B to the gas drain cock of the Buchholz relay.

After installation proceed as follows to fill the gas receiver with oil:

- Open all taps on the pipe connecting the Buchholz relay and the gas receiver;



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- Open tap A and let escape the air inside the receiver; the oil head from the conservator will push the oil from the Buchholz relay to the gas receiver;
- When the gas receiver is full of oil close tap A; the receiver is ready for operation.

4.2 Operation for Gas Accumulation

When gases accumulate in the Buchholz relay, the alarm contact operates. To descend the gases into the gas receiver for test purposes proceed as follows:

- Open Tap D and let the oil inside the gas receiver escape; the oil head from the conservator will push the gas from the Buchholz relay into the connecting pipe to the gas receiver and hence into the gas receiver;
- When the gas receiver is full of gas or all the gas has been descended close tap D;
- By means of tap A the gases can be sampled or examined; see test device EG5.

4.3 Operation for Buchholz relay testing

To test the contacts of the Buchholz relay by compressed air or gas operate as follows:

- Connect the pressure bottle or the air pump to one of the cocks A, D or C;
- Pump air or gas into the gas receiver; the gas will enter the pipe connecting the receiver to the Buchholz relay and hence enter the Buchholz relay itself;
- Stop pumping air when the contact of the Buchholz relay operates.

5.0 Operating Limits

The materials and the components determining the operating limits of these gas receivers are mainly those used for the gaskets.

5.1 Standard Execution

Gaskets are of nitrile rubber and the admitted operating conditions are:

Ambient conditions:

Ambient temperature -20°C - +50°C

Relative Humidity 95% at 20°C - 80% at 40°C - 50% at 50°C

Insulating liquid:

Mineral oil or silicone oil

Temperature range -20°C - +110°C

5.2 Special Executions

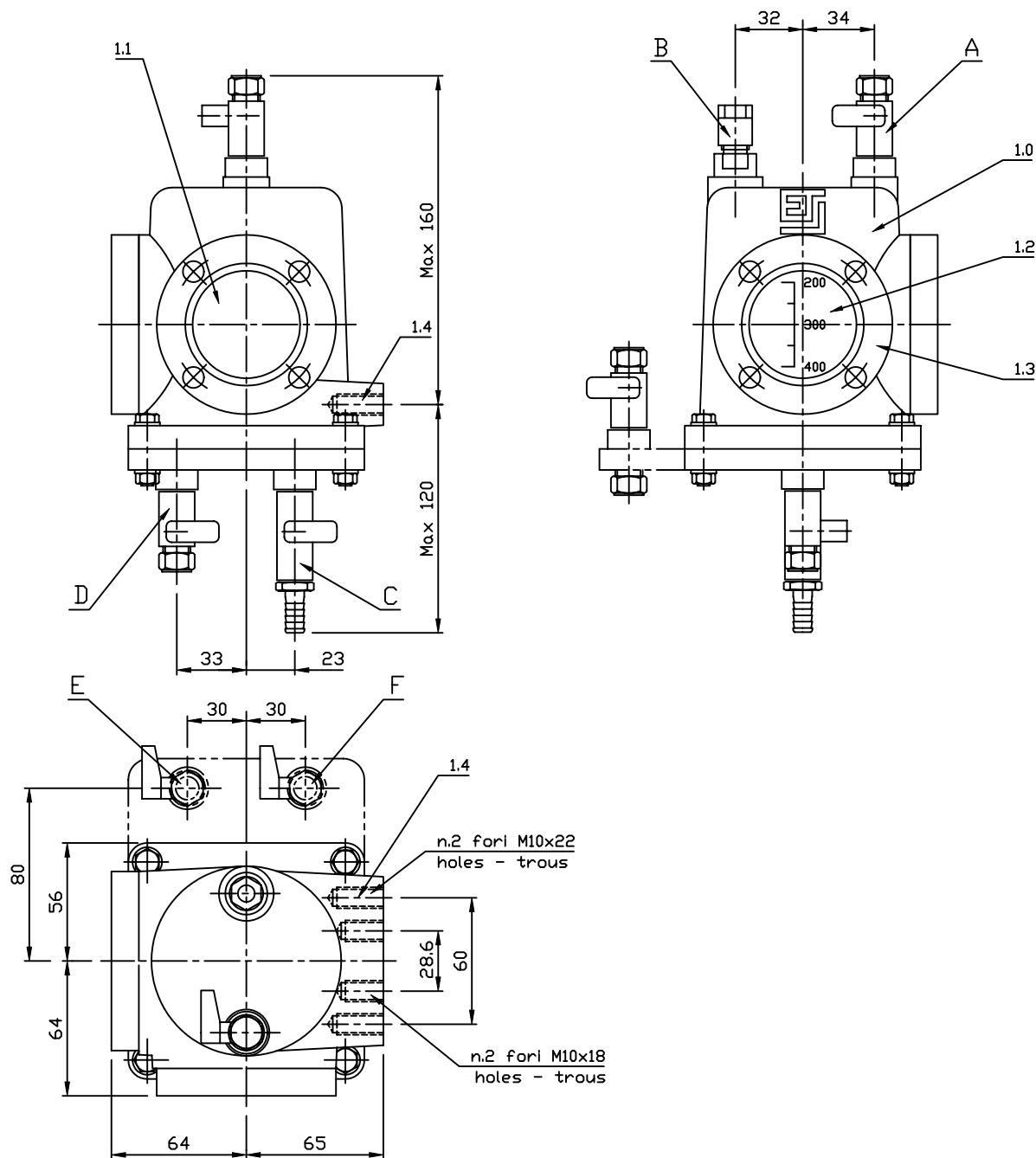
For other ambient or operating conditions to be defined specifically.

6.0 Reference Specifications

- Gas sampling device EG5
- Painting and corrosion protection

N° 09EGGENRxx

N° 00VERRxx



STANDARD ETI

- A RUBINETTO CON TAPPO 1/4" G
TAP WITH CAP 1/4" G
ROBINET AVEC CAPOT 1/4" G
- B ERMETO PER TUBO Ø8.0
CONNECTION FOR PIPE Ø8.0
CONNECTION POUR TUBE Ø8.0
- C RUBINETTO CON ATTACCO A CANNA Ø8.0
TAP WITH RUBBER HOSE CONNECTION Ø8.0
ROBINET AVEC CONNECTION POUR TUBE CAOUTSCHOUK Ø8.0
- D RUBINETTO CON TAPPO 1/4" G
TAP WITH CAP 1/4" G
ROBINET AVEC CAPOT 1/4" G
- E RUBINETTO CON ERMETO PER TUBO Ø8.0 + TAPPO
TAP WITH CONNECTION FOR PIPE Ø8.0 + CAP
ROBINET AVEC CONNECTION POUR TUBE Ø8.0 + CAPOT
- F RUBINETTO CON ERMETO PER TUBO Ø8.0 + TAPPO
TAP WITH CONNECTION FOR PIPE Ø8.0 + CAP
ROBINET AVEC CONNECTION POUR TUBE Ø8.0 + CAPOT

Pos. E+F A RICHIESTA
POS. E+F ON REQUEST
POS. E+F SUR DEMANDE

Altre esecuzioni a richiesta.
Other executions on request.
Autres execution sur demande.

N.rev	Nota sulla revisione	Data	Signatura	Controllo
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Rif.	Quantità	Titolo/Nome, designazione, materiale, dimensione, etc.			N. articolo/Riferimento	
Progettato da	Controllato da	Approvato da - data	Nome file	Data	01-01-99	Scala //
 ETI ELETTRINDUSTRIA Srl 20032 CORMANO ITALY			Titolo/Nome Raccoglitore di gas - Gas collector - Collecteur de gaz Serie: RAGA-B			
Numero disegno				7.060.500	Modific	Foglio
Riproduzione vietata		Non misurare le quote dal disegno				