

NEXOIL

FLUID SYSTEMS MANUFACTURING



MODULAR FLOW METERS SERIES “DELTA”

USE, MAINTENANCE AND INSTALLATION MANUAL

CE

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INTRODUCTION

This manual created for installers, operators and maintenance technicians contains the technical data, installation, safety, use and maintenance standards relating to the FLOW METER SERIES DELTA.

Conserve properly this manual to avoid his damage.

DESCRIPTION AND TECHNICAL CHARACTERISTICS

The FLOW METER SERIES DELTA is based on the principle of "Diaphragm Meter".

- Some noteworthy features are:
- Identical display for the whole range, operated by pressure instead of flow.
- Original arrangement of the magnet pack and the control reeds. With particular precautions it is possible to electronically perform a "step" reading which approximates linearity.
- Excellent correspondence between results of theoretical calculations and actual measurements.
- The device allows an immediate visual reading.
- Measuring small flow rates does not present difficulties.
- The measuring device is not very sensitive to impurities.
- The measuring device is not very sensitive to viscosity.
- The range (sizes) is relatively extensive.

The technical characteristics are listed below.

- 9 interchangeable models, with flow rates from: 0,5-1-2-3-4-5-7-10-15-20lt. / Min. full scale
- Maximum working pressure 1.5 MPa (15bar)
- Flow rate measurement by measuring the differential pressure between inlet and outlet on a calibrated diaphragm
- Visual indication with sliding piston
- Linear measuring scale
- Electronic control of one or more flow values (up to 4) through exchange "reed" contacts
- Flow limiter obtained on the sub-base
- Modular construction

INSTALLATION

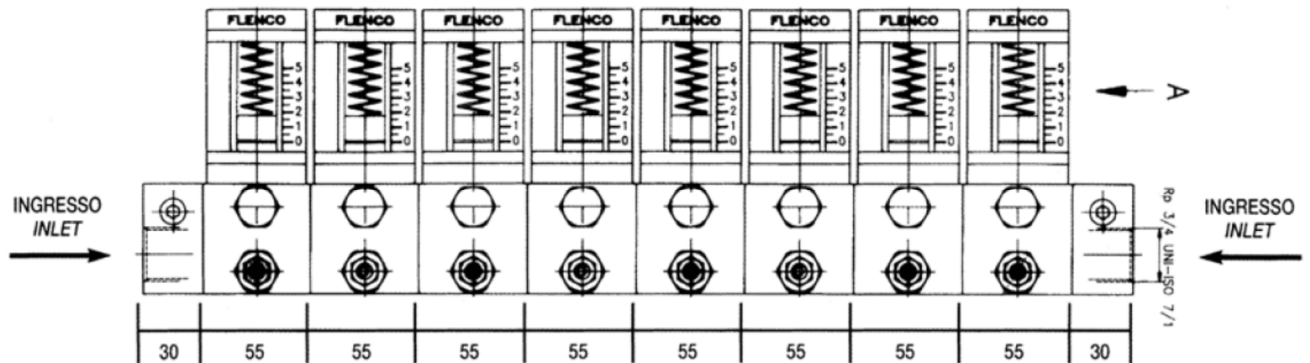


figure 1 – 8 outlet flow meter

The installation and use of the DELTA FLOW SWITCH must be entrusted to qualified personnel with basic knowledge of hydraulics and electricity. Check the integrity of the device and accessories by checking that they have not been damaged during shipping.

In case of damage to the unit, do not put into operation.

In the event of a complaint, contact the sales office of NEXOIL srl immediately.

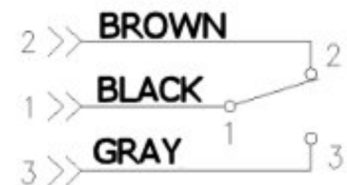
For all the data necessary for a correct installation (connections, connections, etc.) refer to the following paragraphs.

Hydraulic connections

The flow meter is connected hydraulically to the main line via the inlet port (s) (Rp 3/4 "UNI-ISO 7/1). It separates the flow rate in the secondary lines connected hydraulically via the outlet connections (Rp 3/8 "UNI-ISO 7/1)

Electric connections

If there are "reeds" for flow control, refer to the following connection wiring diagram (NC on brown):



Flow regulation

The flow rate through the flow switch is regulated by means of a pin which partially clogs the hole in a steel ring

The stability of the regulation is strongly influenced by the cleanliness of the fluid and becomes critical at low flow rates.

The inconvenience can be solved with correct filtering, which is also a fundamental part in all respects on any lubrication system.

It is therefore advisable to filter the oil that passes through the flow switch to at least 10 nominal microns, except for more stringent filtering needs from other devices.

INTENDED, NOT INTENDED, INCORRECT USE

NOTE: The use of the DELTA FLOW SWITCH for other purposes other than that for which it was designed constitutes improper use of the same. NEXOIL declines all responsibility for its consequences.

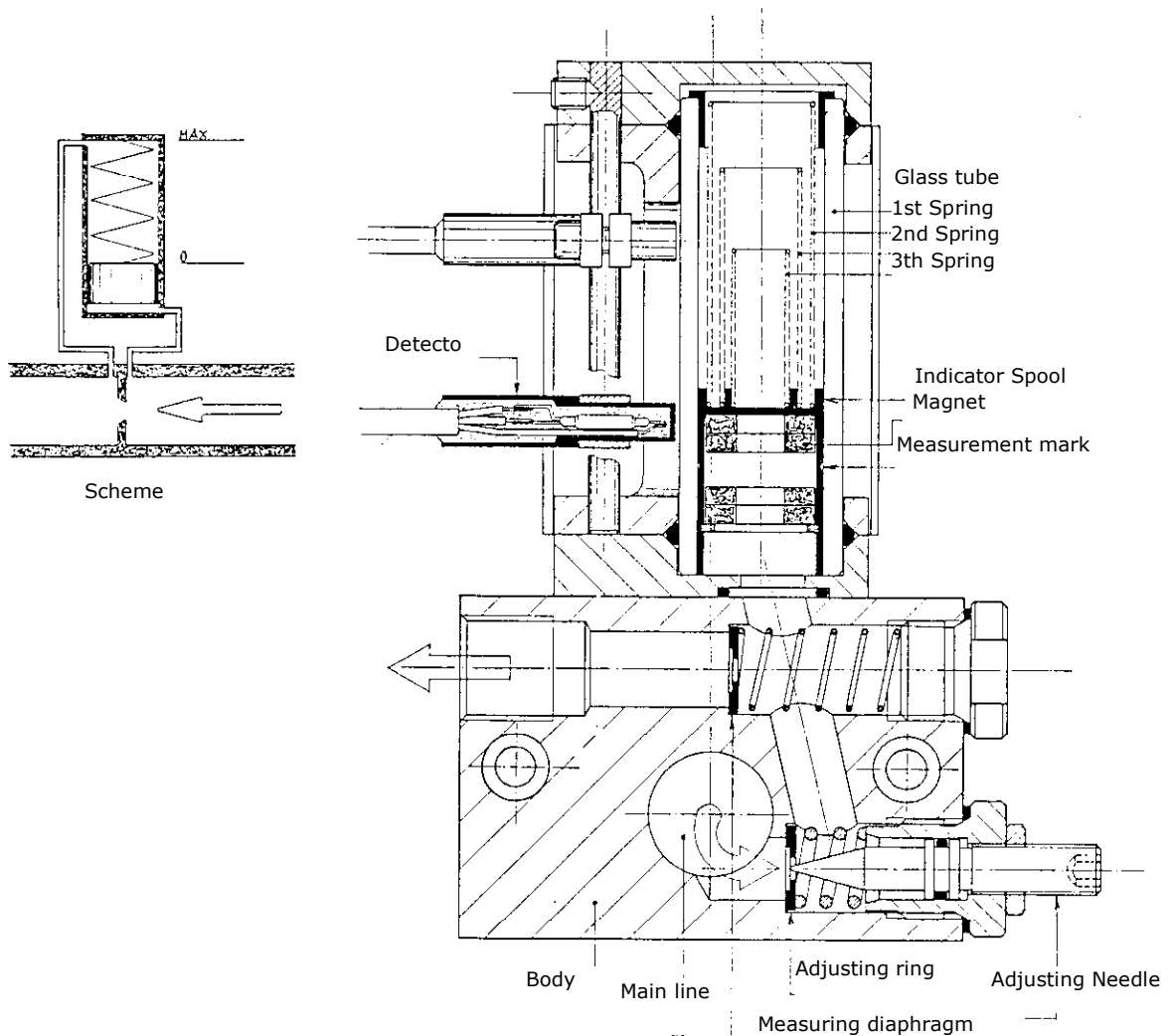
Residual risks

After carefully considering all the possible risks related to the use of this component, all the necessary solutions have been adopted to eliminate the risks and limit the dangers to the exposed people.

The following residual risks remain on the FLOW METER, which can be eliminated or reduced by the corresponding precaution:

Risk of breakage of the glass viewer in case of high pressure.

FUNCTIONING



The figure shows the operating principle and the practical configuration of a flow meter series DELTA.

The liquid coming from the feed manifold flows through the flow limiter (ring and needle) then reaches the measuring diaphragm.

The diaphragm opening is dimensioned to determine, at the maximum foreseen flow rate (full scale), a pressure drop (Δp) equivalent to 0.2 Kg / cm². This drop reacts on the indicator spool causing it to rise to the maximum measuring height (At this point there is still an overrun of a few mm).

By suitably varying the opening diameter and replacing the graduated scale it is possible, without changing other parts of the equipment, to dimension it for a different flow rate limit.

The measure made through a diaphragm on a thin wall is only very slightly influenced by the viscosity of the liquid passing through. As a result, the DELTA flow meter measuring, obtained through this principle, is practically insensitive to temperature variations.

WARRANTY

For any defects of construction and material Nexoil guarantees its products for a maximum of 12 months from the date of delivery.

The warranty covers up to a maximum of 18 months in the case in which the installation is performed over the 6 months following the date of delivery.

Parts subject to normal wear and tear are not covered by the warranty.

In case of failure, communicate to Nexoil: defect, product code, serial number (if any), delivery date, installation date, other that may be useful for management reporting.

The Nexoil will provide telephone support or on-site depending on the situation or communicate the return authorization number (RNC) for returning the part. In the latter case the Nexoil reserves the right to choose between repair and replacement.

If the warranty is still valid, the particular will, free of charge, repaired or replaced.

If the products are not found defective, the Nexoil will decide whether to charge the customer for the costs incurred.

Are to be considered excluded from the warranty damage, injury or expense arising from any defect of the product.

The conditions of validity of the product warranty Nexoil are implicitly accepted at the time of purchase of the product.

Canceling warranty

The warranty is considered to be annulled in the following cases:

- The product is damage by improper use, incorrect installation and use other than that intended.
- The product underwent tampering and/or modifications without written permission of Nexoil srl.

DECLARATION OF CONFORMITY



DICHIARAZIONE DEL FABBRICANTE

DECLARATION BY THE MANUFACTURER

*Ai sensi dell'allegato II. B – della Direttiva 2006/42/CE sulle Macchine
(Macchine destinate all'incorporazione in altre macchine o linee)
In accordance to the annex II. B – Directive 2006/42/CE – Machinery (Machinery for incorporation into other machines or lines)*

NEXOIL s.r.l.

Dichiara sotto la propria responsabilità che il prodotto denominato:
Declares under its own responsibility that the product named:

Descrizione:
Description: Flussostato Serie Delta

Codice articolo:
Item Number: 7040xx

Matricola:
Serial Number: xxxxxxxx yy / zz

È conforme alle disposizioni legislative Nazionali che traspongono le seguenti Direttive CE:
is in conformity with Nation laws that transposing the following EC Directives:

- Direttiva Macchine 2006/42/CE.
- Direttiva Bassa Tensione 2006/95/CE.
- Direttiva Compatibilità Elettromagnetica 2004/108/CE

AVVERTENZA IMPORTANTE!

È vietato mettere in servizio il prodotto oggetto della presente dichiarazione, prima del completamento e/o incorporamento, in totale conformità alle disposizione della Direttiva Macchine 2006/42/CE.

IMPORTANT WARNING!

It is forbidden to operate the product object of this declaration before to the completion and/or building in in full compliance with the Machinery Directive 2006/42/EC.

Avigliana, il XX/YY/ZZZZ

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