#### ∆p-REGLER-REGULATOR: DDD-3-\*, DDU-3-\*

Z 0124221\_007\_DDD3+U3\_GB, subject to change, valid as of device no. ≥ 63106.

#### 1. Service instructions:

Potentiometer S1, S2, S3, S4, Selective switch S5, Damping-Potentiometer Δp-D:

S5: selective switch only for display not for analogue output, positions 1-6: position 1 = HAND = simulation of Ap > S2max, contact at terminals 7 + 8 closed, display shows  $\Delta p$ .

Positions 2 + 3 = set points REGLER. Positions  $\mathbf{4} = \mathbf{M} = \Delta \mathbf{p}$ -actual value.

Positions 5 + 6 = set points ALARM.



Left-hand position / symbol: rabbit = min. = approx. 1 s Right-hand position / symbol: snail = max. = approx. 30 s



S1min ≤ S2max **REGLER, Controller** 





left-hand position = min. right-hand position = max. If S3 is in left-hand position, S3min ≤ S4max ALARM S3 is out of function. **ALARM** 

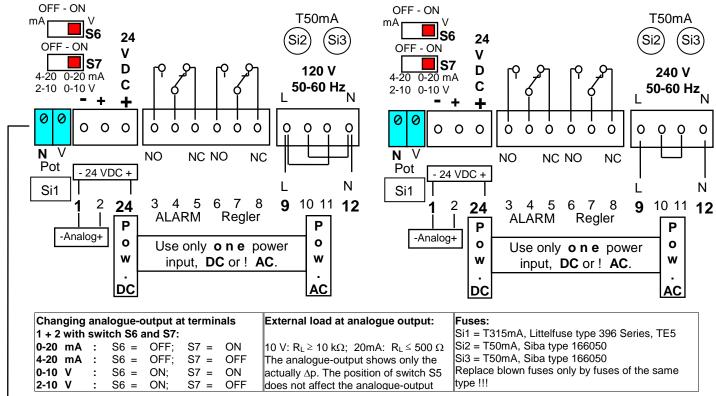
## 2. Electric-connection-diagram:

**S6** = change-over switch for analogue output voltage V to current mA. **S7** = change-over switch 0(4)-20 mA, 0(2)-10V.

3

4

M



When using a ∆p-REGLER-REGULATOR with a range of ≤ 20 mbar, please consider the following:

Pot **N** = zero point. If the device has been transported and/or not been mounted vertically (gravity influence on the sensor membrane), please adjust the zero point as soon as the operating temperature has been reached. Pot N = zero adjustement, 0(2) V, 0(4) mA, Pot V = Full scale adjustement, 10V, 20mA. During the adjustement the Δp-D DAMPING Pot must be in left-hand position = min.

The ALARM-function is activated as soon as the NC-contact of the relay has closed. This happens, when the set point S4 or S3 is reached and exceeded. This condition corresponds to a disconnected appliance (fail safe function).

The Ap-REGLER-REGULATOR is a two-step controller. If the pressure rises, the NC contact of the controller-relay closes, when S2 has been reached - and then e.g. the filter cleaning process starts. This condition corresponds to a disconnected appliance (fail-safe function / the filter cleaning process always starts, when the supply voltage fails). Only if the pressure decreases and finally reaches set point S1, the NC contact of the relay opens and switches off again.

# 3. Mounting instructions:

3 borings in the back panel of the housing = 4.2 x 10 mm, 108 x 135 mm. Please mount the back panel vertically. If installed outside, the Ap-REGLER-REGULATOR needs to be protected against weather and sun influences by means of a roof. Sunshine can cause too high temperatures in the REGULATOR and thus its distruction. For entering cables only use the delivered plastic connectors. Cable connectors out of metal are not allowed, because they are not grounded. External installed cables for the analogue output signal must be covered by a screen, which must be grounded. Ground not at the REGULATOR side, ground only at the other side of the cable, e.g. at the electric cabinet. Install the analogue output cable by your national standards separated to other cables e.g.: power cables, telecommunication cables and so on. If you use only one pressure connection (+ or -), then the other one that remains unused must be open and protected against dust and dirt. For this reason please use our GOLD-FILTER FS-1/8 or a tube placed in a dust-free room. If the pressure measurement tubes (positive or negative pressure) could get dirty, please install our FILTER FT\* or our PIPE-CLEANER PPC\*.

### MIKRO-MESS-GMBH

Am Südende 15 - Steinwedel D - 31275 Lehrte, Phone: ++49 (0)5136 880 990 8, FAX: ++49 (0)5136 880 990 0

Internet: www.mikro-mess.de E-Mail: info@mikro-mess.de