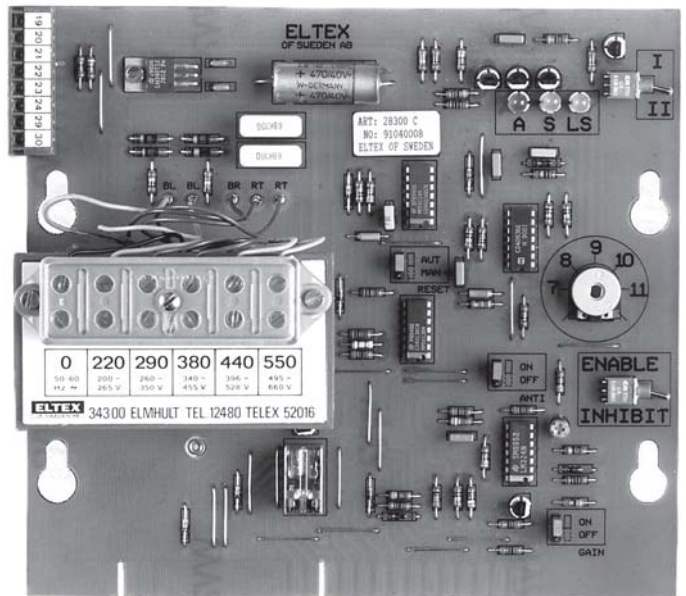


ELTEX control unit 28300, 28301

for ELTEX logic current weft sensors

General description

The 28300 electronic board is a control unit and power supply used for Eltex weft break sensors with logic current output (E-type). It is designed to fit into the Eltex metal box or into the control box of the weaving machine. It can also be used when existing weft sensors of analogue types are replaced with E-type weft sensors. In that case the 28300 board is fitted instead of the old control unit.



Advantages

With the Eltex logic current system the following advantages will be attained:

- ANTI-function: This weft stop motion can detect if too many yarns are inserted simultaneously by mistake.
- The E2070 weft sensor can easily be set up for many combinations of mixed single and double weft insertions, still with ANTI-function.
- It is also possible to detect three and four wefts moving at the same time, using only one E2070 weft sensor and still with ANTI-function.
- The logic current system is very insensitive to electrical and mechanical interferences.
- Any of the existing Eltex weft sensors with logic current output can be connected to the 28300 board, for example E2016, ANTI, E2010-2 and E2070.
- The 28300 board has the same size and connections as the Eltex boards for analogue weft stop motions. When a weft stop motion is updated with a weft sensor with logic current output and this board, only the cable for the weft sensor must be rewired.
- Two weft sensors can be used with one control unit. The wires from the second weft sensor is connected in parallel to the first one.

Logic current principle

Eltex logic current weft sensors are communicating with the control unit by means of a DC current signal. When **one** yarn is moving, the weft sensor is sending a certain amount of current, and this is called a "current unit". The central control unit can be set to detect one or two current units from the weft sensor.

Functions and specifications

1. Red LED A = ANTI

If too many weft yarns are moving at the same time during the sensing period, the control unit will receive too many current units, and the machine will be stopped. This LED will then light up. It turns off when the machine is restarted.

2. Green LED S = weft sensor

If the control unit receives correct amount of current units this diode will light up.

3. Green LED LS = Light switch

This LED will light up during the sensing periods, i.e. when the flag is interrupting the infrared light beam in the light switch.

4. Single-Double switch

Position I means that the correct signal is one current unit. If the control unit receives less it will stop the machine. If it receives more current from the weft sensor, it will stop and also indicate "ANTI-fault".

Position II means that the correct signal is two current units.

5. GAIN potentiometer

The sensitivity in the weft sensor is adjusted by means of a 0–6.5 V DC voltage from the control unit to the weft sensor.

6. Reset switch

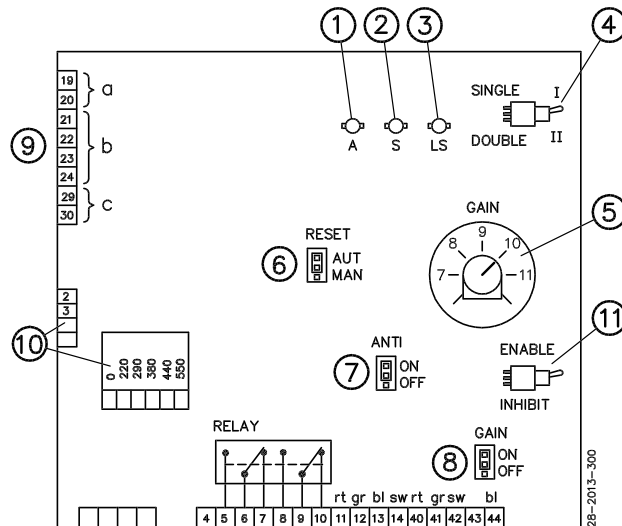
The reset after a stop can be done in two ways: automatically or with a closing contact on the machine.

7. ANTI switch

The ANTI-function can be switched off. When an E2010-2 weft sensor is used, the connection shunt should be set in the "OFF" position.

8. GAIN switch

When the weft sensor has a GAIN potentiometer, this connection shunt is set in the "OFF" position. The GAIN potentiometer on the board (no. 5) will then have no function.



9. Extra connection

- If reset is done from the machine the closing contact is connected here.
- By mixed single/double weft insertions a light switch or a proximity switch can be connected here to control the single or double sensing. Mixed weaving can also be done using the E2010-2 or the E2070 weft sensor. Your Eltex supplier will help you in this respect.
- When it is necessary to avoid the relay fall time this electronic stop output can be used.

10. Power supply

This central control unit is available with two different transformers:

28300 transformer for 230–550 V AC

28301 transformer for 12 or 24 V AC

11. Weft stop inhibit

Position "ENABLE" means that the weft stop motion is active. Position "INHIBIT" means that the weft stop motion is not active, and the machine can run without weft.



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