

ELTEX optical weft stop motion



Signal giver

The optical signal giver is of reflecting type. The signal giver should be fitted on the front of the reed, it will not damage the reed. The signal giver has a set of optical components enabling the detection of the weft across the entire air channel.

The size of the optical signal giver and the angles of the optical components must be made according to the space available on the weaving machine and to the measurements of the reed.

Central control unit

The central control unit is equipped with two channels and two inputs for signal givers. The detectors for the signal from the signal givers have a very short reaction time.

They can detect both a positive and a negative change of the signal. This means that both light and dark coloured yarns can be detected.

Functions and specifications

Power supply	24 V DC
Relay stop output	The relay is normally energized. It drops for 1 second when a weft fault occurs. Max load on relay contacts: 2 x 1A / 125V AC or 2 x 2A / 30 V DC
Electronic stop output	An open collector output is also available. The output is short circuit to ground during 1 second when a weft fault occurs. Max load is 100 mA.
Thread arrival output	One output for each channel is available notifying the arrival time of the yarn. The pulse is 50 ms long and the positive edge is synchronised with the arrival time of the yarn.
Size	Europe size board 100 x 160 mm. Equipped with a Europe connector DIN 41612 series D, 32 poles
Input synchronising switch	To use the stop outputs on the central control unit, the unit must be synchronised with the machine. This can be done with a proximity switch or with an Eltex light switch. A positive pulse defines the time frame when the weft yarn arrival is expected. The yarn arrival outputs are available also when no synchronising switch is used.
Synchronising switch function	With a connection shunt on the printed circuit board the input can be set to suit a NPN or a PNP type proximity switch. If Eltex light switch is used, select the NPN position.

Idle pick input	An input to inhibit the stop outputs. This is used when the machine is weaving without weft, (fringing).
ON/OFF switch	When the switch is OFF the stop outputs are inhibited. The machine can then weave without weft. Other functions of the unit is still active.
ANTI switch	The switch will switch the ANTI signal giver on or off.
Filter switch	On models where the second channel is used to detect if the weft yarn passing too far out, this channel can be set so that it is less sensitive for dust particles passing the signal giver. The switch has three positions.
LED indicators	There are five LED indicators: <ul style="list-style-type: none"> – Stop channel 1 – Stop channel 2 – Signal from signal giver channel 1 – Signal from signal giver channel 2 – Signal from synchronising switch.
Sensitivity	A potentiometer is available to set the sensitivity in each channel.
Test socket	A five pole test socket is available with the following connections: <ul style="list-style-type: none"> – Internal power +12 V DC – Ground connection – Signal from synchronising switch – Thread arrival output channel 1 – Thread arrival output channel 2

Models

22000	The second channel is used for an ANTI signal giver. This signal giver should be placed on the reed so the weft yarn does not reach this point unless the weft is broken.
22020	On a velvet weaving machine with a reed with two air channels one signal giver is fitted on each channel. The two electronic channels on the central control unit are used one for each signal giver.

Fitting

The central control unit is designed to fit in the control box of the weaving machine. On machines where there is no connector available for this unit, use the Eltex plastic case I3400.



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