

Instruction for ELTEX Flexi-Hub

Interface unit for G3s, EVG-s and UPG sensors

Part no. 15781



General

The Eltex Flexi-Hub unit is intended to be used when it is necessary to have a relay output from the thread break detection sensors. The Flexi-Hub is then used as an interface between the machine and Eltex standalone thread break sensors. On machines with PLC control the Eltex sensors can normally be connected directly to the PLC.

Fitting

The Flexi-Hub is intended to be fitted on a DIN-rail in the control box of the machine.

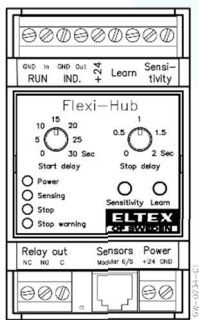
Features

The Flexi-Hub unit has a relay output and an output for an indication lamp/LED.

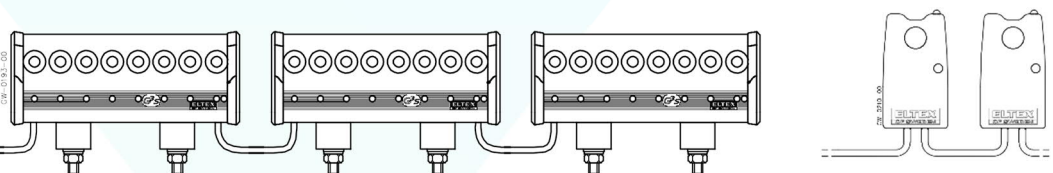
It has a modular jack as input from the thread break sensors, input for running mode from the machine and input for external push buttons for sensitivity and learn setting in the sensors.

On the front of the unit it has a potentiometer for setting of the start delay and a potentiometer for a stop delay. It also has two push buttons. One for sensitivity setting of the yarn sensors and one to learn positions used in the yarn sensors. Further it has four LEDs to indicate the function mode of the unit.

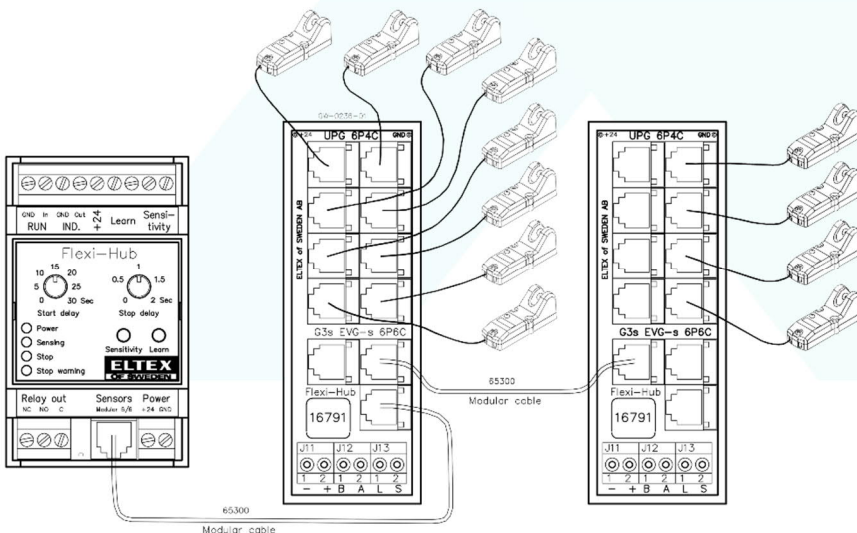
Connection of G3s or EVG-s sensors



Eltex G3s or EVG-s sensors are connected to the Flexi-Hub unit with Modular 6P6C cables. Eltex part no. 65300.

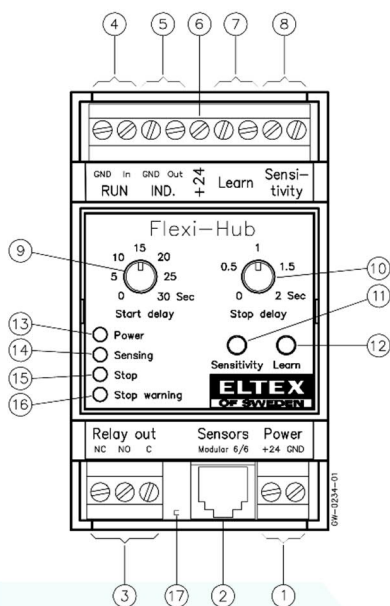


Connection of UPG sensors



It is possible also to connect Eltex UPG sensors to the Flexi-Hub unit. As UPG sensors has a Modular 6P4C connector and does not have the double Modular jack, the 16791 Connection board must be used between the sensors and the Flexi-Hub unit. Up to 8 sensors can be connected to each board. If more sensors are needed, more 16791 boards are added.

The sensitivity or learn button on the Flexi-Hub unit does not have any function together with UPG yarn break sensors.



1 Power

Power supply 24 V DC
(17 – 30 V DC)
Protected against wrong polarity.

2 Sensor connection.

The standalone sensors are connected to this Modular jack with 6P6C Modular cables.
Maximum 20 sensors can be connected. Should more sensors be needed check with Eltex service station.

3 Relay output

The relay will be engaged if any sensor is sending a stop signal during the time the Flexi-Hub is in sensing mode. The relay will reset when the run input signal disappears. If a jumper is connected across the running mode input, the relay will operate once every 10 seconds whenever the yarns are not moving correctly.

Relay contact load: 3A / 250 V AC

4 Run input

A connection is made to the machine. When the machine is running the connection between "GND" and "In" should be closed. When the machine is not operating the connection should be open.
A green LED located on the printed board behind the screw terminal indicates the status of the run mode input.

If no running mode connection is available, a jumper can be connected across this input.

5 Indication output

On the "out" terminal an alternating 24 V DC will appear when the unit has stopped the machine because of a thread breakage. Maximum load 1 A. If a jumper is connected across the running mode input, the output will be like this all the time when the yarns are not moving.

6 + 24 V

On this terminal the protected supply voltage of 24 V DC is available.

7 Learn

An external push button (located on the machine or control panel of the machine) can be connected here. This push button will have the same function as the "Learn" push button on the Flexi-Hub unit.

8 Sensitivity

An external push button located on the machine or control panel of the machine can be connected here. This push button will have the same function as the "Sensitivity" push button on the Flexi-Hub unit.

9 Start delay

With this potentiometer it is possible to delay the start of sensing mode in case the machine is starting up slowly. The time can be set between 0 and 30 seconds. If a link is connected to the running mode input, this potentiometer will have no function.

10 Stop delay time

With this potentiometer it is possible to avoid an unwanted stop of the machine. This is in case the yarn movement is making a regular stop during the machine operation or if the yarn movement is very slow. It is then possible to bridge stop signals from the yarn sensors.

This time can be set between zero and 2 seconds.

11 Sensitivity push button

With this push button it is possible to adjust the sensitivity in the G3s or EVG-s yarn break sensor.

12 Learn push button

With this push button it is possible to set which yarn positions should be active in the G3s or EVG-s yarn break sensors.

13 Power LED (green)

This LED will be on if Flexi-Hub have started OK

14 Sensing LED (green)

This LED will turn on when the Flexi-Hub unit has received run mode signal from the machine and when the Start delay time has expired. If a link is connected to the running mode input, this LED will be on all the time.

15 Stop LED (red)

This LED will follow "stop indication output". If a link is connected to the running mode input,

16 Stop warning LED

If a stop signal from the sensors is shorter than the "Stop delay time" No stop is sent to the machine. If the detected stop from sensors is more than 50% of set "Stop delay time" This led will flash.

17 Red LED located beside the Modular jack

This LED is on when there is a stop signal from the yarn sensors.