ELECTRONIC THREAD SENSOR 435-08.021

Application

For use with all high-speed textile machinery (such as texturising and winding machines) for the purpose of monitoring all common types of yarn – particularly in cases when the detection process does not permit any additional forces on the thread.

Function

This thread sensor is used for reliably monitoring the yarn's progress. If a thread is missing or stops, a direct signal is sent contactlessley to the connected load (thread cutter). As an option, information from the available logic output can be sent to an IV device/ machine control in order to obtain access to numerous evaluation options. There is also an integrated sensor key with LED. This can be used to disable a pending output signal and the device will then become inactive (the logic output referred to above is not taken into account when the sensor key is pressed). The device will be automatically reactivated/resume its monitoring function when the thread starts running. Consequently, there is no need to press the sensor key again.

Capacitive Sensors

Naturally, we can provide bespoke thread sensors on request. These special solutions differ from the standard ones in various ways (changes/adaptations) and can also be installed in different sensor channels (see Section 3.4.5).

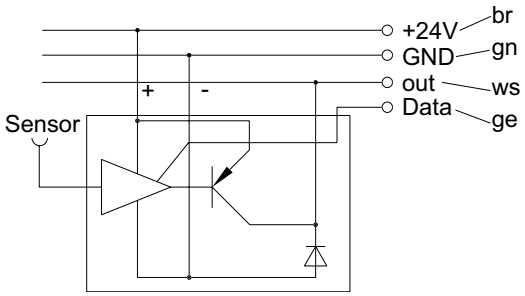
Accessories

- The connecting cable can be ordered by quoting number 435-08.10 (1.45 m long).
- The connecting cable can be ordered by quoting number 435-08.11 (4.00 m long).

Technical data

Operating voltage	24 VDC ± 20 %
Residual ripple	Max. 5 % (three-phase bridge)
Current consumpt. with thread	Approx. 6 mA
Current consumpt. without thread	Approx. 15 mA
Short-time switching current (1 s)	1.5 A
Continuous switching current	0.5 A
Method of connection	Plus connected (PNP transistor)
Circuit output	Permanently short-circuit proof (in the event of a short circuit involving the output lines, the device will be shut down)
Thread output	Thread running < 2 V Thread stationary > 9 V
Switch-in delay	Approx. 1 s
Minimum thread speed	Approx. 100m/min

Circuit diagram



Dimensions [mm]