



ELECTRONIC THREAD SENSOR 435-08.022

Application

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

Function

This thread sensor is used for reliably monitoring the yarn's progress. If a thread stops or is missing, a direct signal is sent contactlessly to the connected load (thread cutter) or to a machine control for access to numerous evaluation options.

Capacitive Sensors



The thread sensor's electronic connection is established using a printed board connector. The circuit output is contactless and can be implemented using either an open NPN collector or PNP transistor. 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).

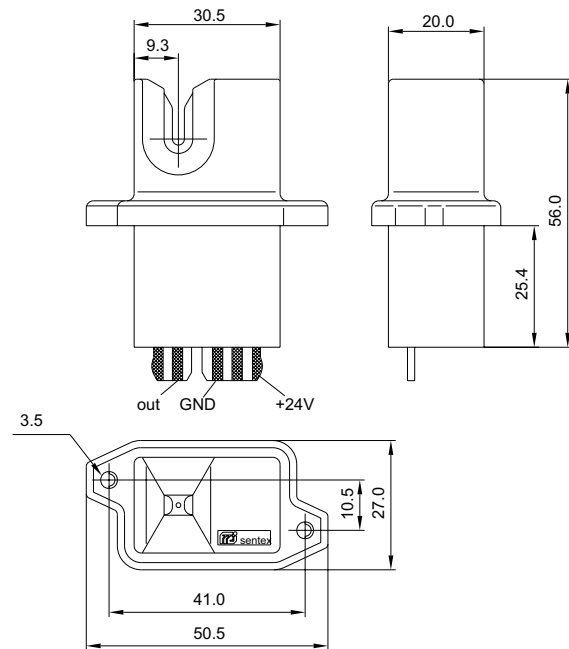
Accessories

- 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 \pm 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	Impedance 1 k Ω Temporarily short-circuit proof
Thread output	Thread running < 2 V Thread stationary > 9 V
Switch-in delay	Approx. 1 s
Minimum thread speed	Approx. 100m/min

Dimensions [mm]



Circuit diagram

