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DYB - 3

Roller-Type Yarn Break Sensor

Sensor booklet and user manual

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I. Safety Warnings

The DYB - 3 sensor itself does not pose any safety risk.

It must be integrated into its place of use only by a person or persons with sufficient knowledge of electrical systems, wiring, and related matters.

II. DYB - 3 Sensor Information

Engineered with a reliable mechanical assembly, the DYB-3 sensor monitors and verifies the continuous flow and presence of various strands, including yarns, wires, and fibers. Commonly referred to as a yarn break sensor, it is designed for continuous quality assurance, ensuring the structural integrity of diverse linear materials as they travel through the production system.

A. Technical Specifications

Parameter	Value	Unit
Maximum Voltage	30	V
Maximum Current	50	mA

*Values apply at 1 atm pressure and 25℃. At temperatures above 65℃, a minimum current of 4 mA is recommended.
*IP41, CE conformity (Europe).

B. Part Codes

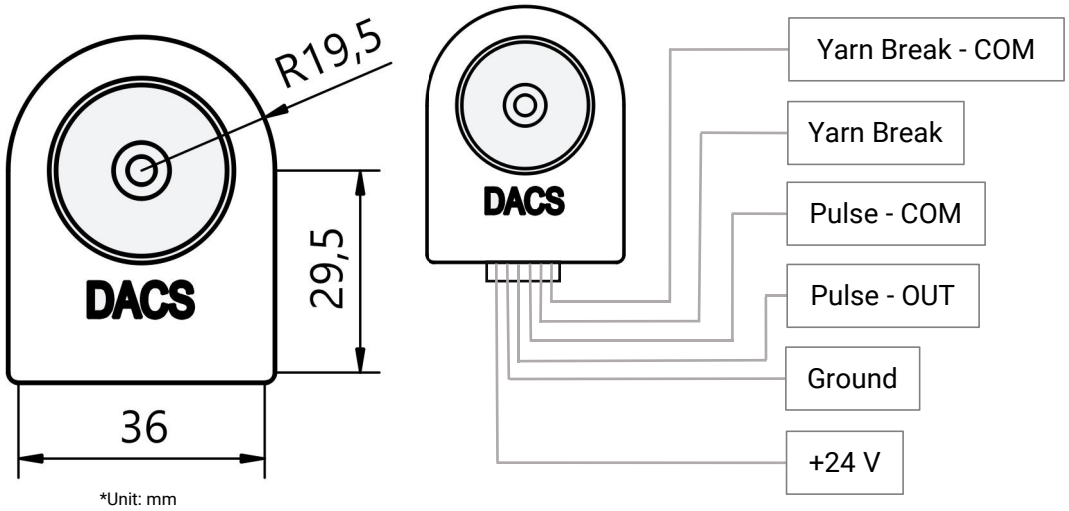
Code	Part Name
DMKR22.155	Roller
DSKT6	Input Socket
DKTU385	Input Box

III. Installation, Wiring Diagram, and Package Contents

A. Package Contents

DYB - 3 Yarn Break Sensor	1 pc
Connection cable in the requested length	1 pc
User Manual	1 pc

B. Dimensions and Wiring Diagram



*Unit: mm

C. Operation and Versions

DYB - 3 Yarn Break Sensor is a high-sensitivity detector that continuously monitors the yarn/wire flow on machines and instantly detects possible breaks or stoppages. To match the operating logic of the automation unit it is connected to (PLC, control board, etc.), the sensor is manufactured with **two different output** types.

1. **Continuous ON (Normally Closed / NC) Output Type - DYB - 3 /NC**

- Normal Operation: While the yarn is flowing normally, the sensor sends an uninterrupted signal to the automation unit.
- Alarm Condition: When the yarn breaks or its flow stops, the sensor output is cut (switches to OFF), and a fault notification is transmitted to the automation unit. This design also allows the system to detect connection faults such as a broken cable.

2. Continuous OFF (Normally Open / NO) Output Type - DYB - 3 /NO

- Normal Operation: As long as the yarn keeps flowing, the sensor gives no output and remains passive.
- Alarm Condition: Only when a yarn break or stoppage is detected is the sensor triggered, sending a warning signal to the automation unit.

3. Speed Data Transmission (Optional Feature)

The sensor is capable of detecting the movement frequency of the yarn. If the infrastructure of the connected automation unit supports this feature, the device can transmit not only break information but also real-time yarn flow speed data to the automation system.

4. **Using Multiple Sensors**

More than one DACS Yarn Break Sensor can be connected to a single control unit:

- Separate Input Connection: When independent input channels on the unit are used, sensors with continuous ON outputs and sensors with continuous OFF outputs can be operated together in the same system.
- Common Line Connection: If more than one sensor is to be connected to a single input line, sensors with the same output type should be used. Continuous OFF-type sensors must be connected in **parallel**, and continuous ON-type sensors in **series**.

IV. Maintenance and Cleaning

Approximately every 6 weeks, wipe off the dust accumulated around the sensor with a dry cloth, applying light pressure. **Do not use** any chemicals.

V. Troubleshooting

Please contact technical service!

Website Help Form:	www.ekinelektrik.com
WhatsApp:	+90 (539) 662 84 94
E-mail:	info@ekinelektrik.com

VI. Warranty Terms

Subjecting the product to any procedure other than those directed by technical service is a breach of the warranty terms. To prove compliance with the warranty terms, please record the product fault with images (photo or video)! You can contact our company for the warranty terms.

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DACS Industrial Sensors

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