

## Application Note 8 Low Level Alarm for Bins



### Description:

KAS Series sensors are used as level detectors in the bulk processing industry for many operations. Dry glue pellets, which feed into hot melt glue machines, can be detected in bins, hoppers, and transfer systems. The signal from the sensors can be used to control bin levels, shut off pneumatic conveyors or operate alarm systems.

### Function:

The level of bulk pellets in the supply bin of a hot melt glue machine must be kept above a chosen minimum level at all times to prevent the hot melt glue machine from running empty. The supply bin of the machine is manually refilled with glue pellets by a worker.

For detection of glue pellets, it is recommended that the sensors be immersed in the material. The non-flush mount type of sensor is installed through the wall of the bin to obtain accurate results.

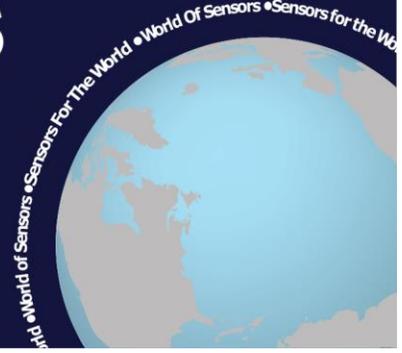
One KAS sensor is mounted through the wall of the supply bin at the refill level. The sensor detects a low level of glue pellets in the bin and turns on an alarm or a visual signal. This signal indicates to a worker that it is time to add more glue pellets to the bin.

In this application the EGI-RLC power supply is wired as shown. The EGI-RLC acts as the power supply for the sensor as well as a signal conditioner to turn the sensor signal into a SPDT relay output. This simplifies installation and allows for a wider variety of signal devices to be used.

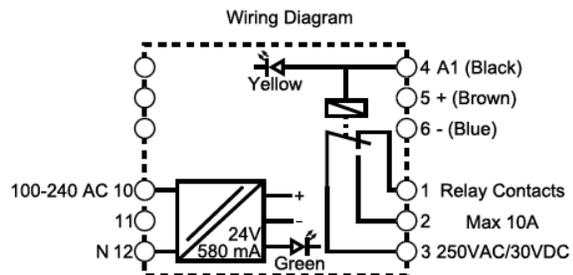
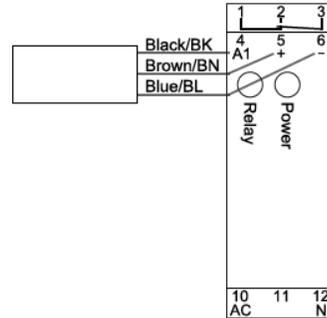
### Parts Required:

- 1 Rechner Logic Controller: EGI-RLC
- 1 Sensor: KAS-80-A24-A-M30-PPO-Y3-1-NL (M30 diameter)  
-OR-  
KAS-80-35-A-M32-PPO-Y3-1-NL (M32 diameter)
- 1 5 Meter Cable: 0.25SQX4C

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### EGI-RLC



### Wiring:

- AC power** is wired to terminals 10, and 12.
- The **sensor** is wired to terminals 4, 5, and 6.
- The **low level signal** is wired to terminals 2 and 3.

Adjust the sensor to detect the pellets in the tank:

1. **Locate the sensitivity adjustment potentiometer** on the back of the sensor.
2. **Fully immerse the sensor** into the bulk material.
3. **Reset the sensor's sensitivity** by turning the potentiometer counter-clockwise 20 full turns, or until the sensor no longer sees the product.
4. **Find the switching point of the bulk material** by turning the potentiometer clockwise until the sensor detects the product.
5. **Add 1/4 turn for safety** by turning the potentiometer a further 90 degrees clockwise.