SUCCESS STORY

Hot glue detection on bottle cap

Customer
Pharmaceutical Industry

Customer requirements
Hot glue detection on bottle cap

Orchid Solution :
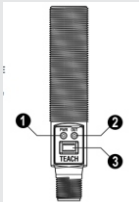Non contact infrared temperature sensor

Customer benefits
- User friendly teaching (static & dynamic mode)
- Non contact infrared type principal
- No potentiometer adjustments
- Requires no emitter, controller or external amplifier
- Compact sensor for reliable detection of small changes
- Push button lock out

Product features
- Temp sensing range -20° to 300° C
- Repeatability ± 1% of measurement, or ± 1 °C, whichever is greater
- Discrete outputs (Bipolar PNP /NPN) & analog output
- Fast response time 25 ms
- Sensing range up to 1 meter (adjustable)
- Sensitive to temperature contrasts of ± 3° C
- 18 mm stainless steel threaded barrel
- General-purpose sensing lence ratio: 8:1
- Rugged encapsulated design for harsh environments
- Leakproof design IP67; NEMA 6 rated
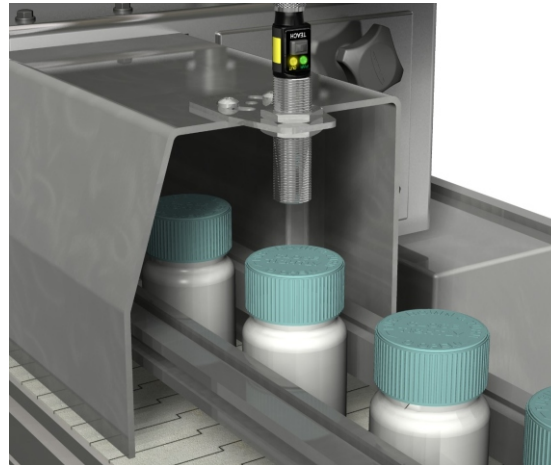
Products Look

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Some other applications
- Cold part detection (frozen foods, ice, dairy)
- Flame process verification
- Hot glue detection and monitoring
- Hot seal monitoring
- Roller monitoring
- Ejection monitoring of injection-molded parts
- Process equipment and fixture monitoring
- Gear box monitoring

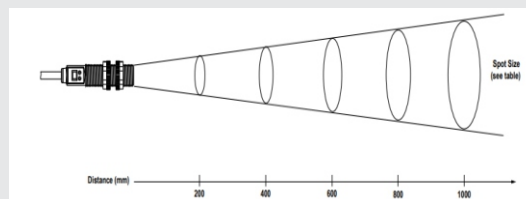### Application
Hot glue detection on bottle cap

Challenge
Customer need to check that hot glue detection on bottle cap is proper or not for next packaging process. If gum is hot then **outsert will be properly fixed on bottle**. If not then It may be market complain and these outsert has some useful information in terms of medical.
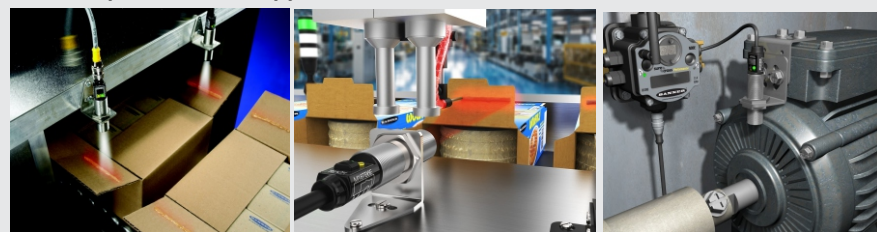
Solution
By using of non contact temperature sensor and it is mounted on top of bottle for hot glue detection. In these sensor , teaching on hot condition and it gives one discrete output on set temp and send to PLC & PLC gives an alarm so operator knows some thing is wrong and gets advantages like improve productivity, reduce maintenance time

Sensing field of View (detection spot size versus spot size)

Sensor D:S Ratio	Distance from Sensor Face Versus Spot Size										
	100	200	300	400	500	600	700	800	900	1000	Distance (mm)
6:1	17	33	50	67	83	100	117	133	150	167	Spot Size (mm)
8:1	13	25	38	50	63	75	88	100	113	125	
14:1	7	14	21	29	36	43	50	57	64	71	

Some of pictorial view applications

Subject to modifications without prior notice