

Photoelectric

Proximity

Encoder

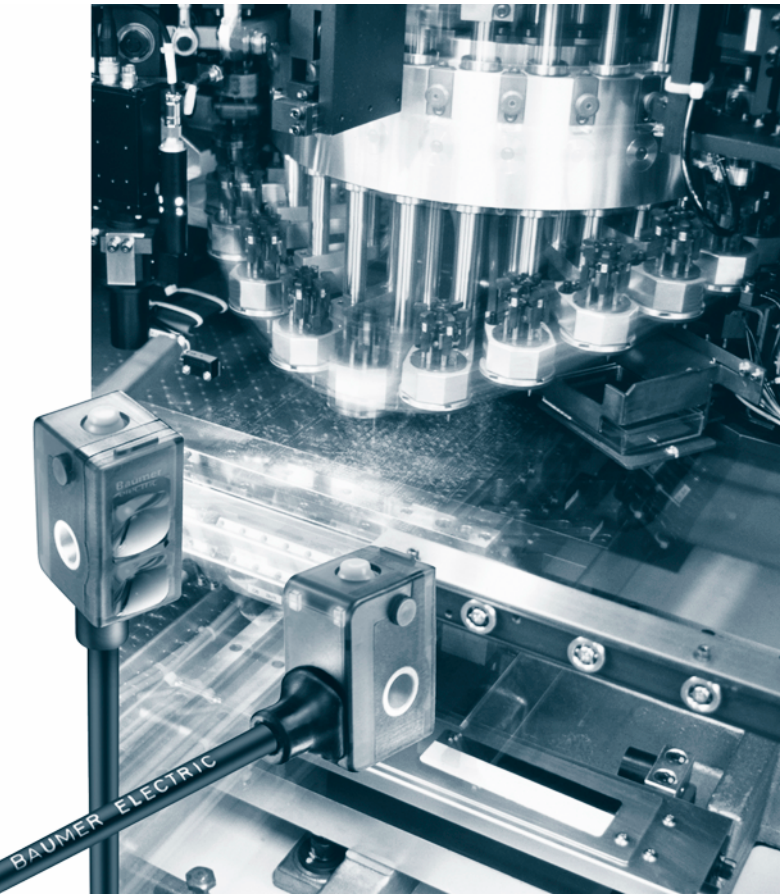


Sensor solutions for factory automation

Position sensing

Distance measuring

Angle measuring



Sensors for Factory Automation

Technology When You Need It.

Baumer electric offers more high-precision sensing solutions in more technology groups than any other company in the world. With over 185 R&D and product development engineers on staff — and 40,000 sensor designs to choose from — we can provide the most advanced sensor technologies optimized for your factory automation application. Whether it's simple monitoring of machine tools and dies, to complex remote wireless intelligence systems — including the latest in M2M (Machine to Machine) integration — we can supply it.

In a tough and competitive global environment, where reducing the time to market and maximizing production efficiencies and throughput are more critical than ever, it is important to have a supplier who can keep pace with your growing needs. Because of the breadth and depth of our product lines, our combined heritage of Swiss precision and American know-how, and our focus on customer service, we are that company. For unique solutions to your toughest sensing problems, choose Baumer electric.



Photoelectric FHCK 07 MINOS

- 1A** Confirm presence and location of conveyor pallet
- 1B** Confirm stamped parts are flat and seated properly on linear robotic tray
- 1C** Detect that small components are staged properly on vibratory feeder rail



Photoelectric OHDK 14/FHDK 14

- 2A** Confirm stamped parts are placed flat in pallet fixtures
- 2B** Detect presence/orientation of small parts in vibratory feeder rail
- 2C** Monitor feed rate/volume of parts in vibratory bowl; actuate air blow-off



Ultrasonic UNAM 12 & UNDK 30

- 3A** Monitor product levels in finished parts bins and hoppers feeding vibratory bowls. "Teachable" analog or two-point output
- 3B** Monitor sheet metal roll diameter for tension control and low level warning



Inductive IFFM 08

- 4A** Monitor linear travel position of robotic slide
- 4B** In-die protection to prevent jams and double-strikes
- 4C** Robotic gripper finger position monitoring



Encoder BRIH 58 EcoMag

- 5A** Encoders monitor speed and position of pallet conveyor
- 5B** Multi-turn absolute encoder monitors and accurately controls robotic arm position



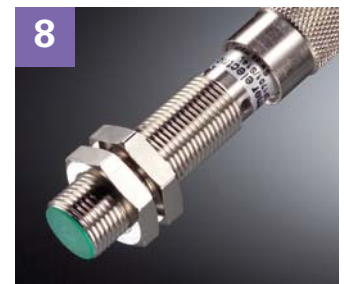
Magnetic MDFK/MLFK 08

- 6A** Magnetic linear encoder monitors linear slide position
- 6B** Rotary magnetic encoder monitors/positions bins on conveyor



Laser OADM 12

- 7A** Confirm all parts ejected from conveyor pallet and pallet fully engaged
- 7B** Confirm depth of insertion of small parts in pallet fixture; height measurement

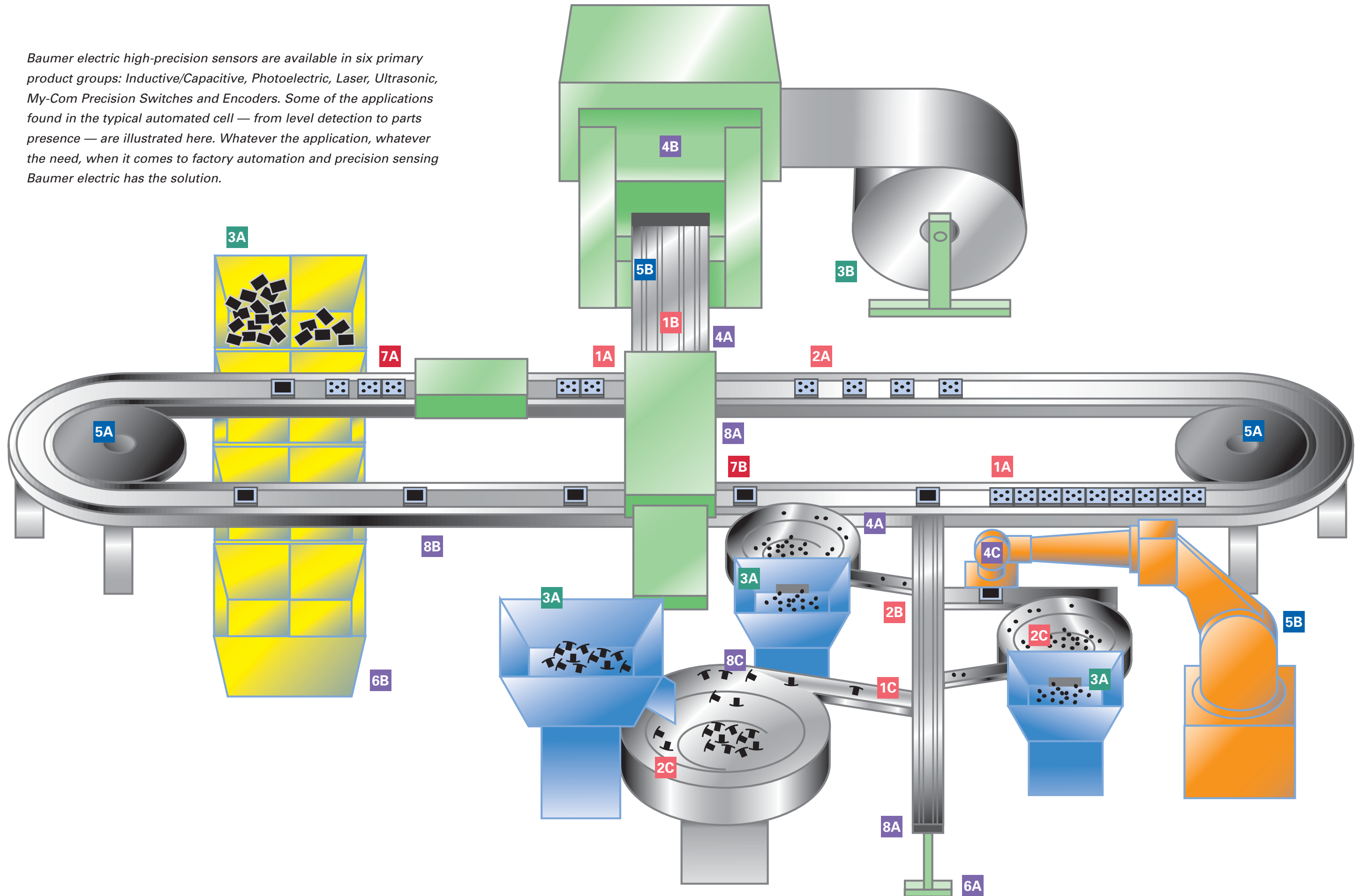


Inductive IFRM 12

- 8A** Monitor travel/position of linear slide (end of travel)
- 8B** Count/monitor pallets traveling on conveyor
- 8C** Detect absence/presence of smaller metal parts; monitor for jams

(Products shown are not to scale.)

Baumer electric high-precision sensors are available in six primary product groups: Inductive/Capacitive, Photoelectric, Laser, Ultrasonic, My-Com Precision Switches and Encoders. Some of the applications found in the typical automated cell — from level detection to parts presence — are illustrated here. Whatever the application, whatever the need, when it comes to factory automation and precision sensing Baumer electric has the solution.



Inductive and Capacitive Proximity Sensors



- For rugged, close range sensing
- Precise position and distance feedback
- Micro/miniature designs
- Cable or quick-disconnect options
- Analog output available
- Extended sensing range

Photoelectric Sensors



- Diffuse, retro-reflective, through-beam
- Background suppression by triangulation
- Sense color variations, even reflective backgrounds
- Fiber optic versions available
- Easy setup in remote or tight locations
- Standardized body designs

Laser Sensors



- Excellent for small object detection
- Self-contained analog versions
- Resolution down to 2 microns for high-precision displacement feedback
- Background suppression by triangulation
- Smallest housings available

Ultrasonic Sensors



- Continuous level/distance measuring
- Fast, reliable detection even at long distances
- Sense difficult surface properties
- Ideal for transparent glass, translucent webs, reflective foils
- Self-contained analog versions
- Excellent temperature compensation

My-Com Ultra-Precision Mechanical Switches



- Used for ultra-precise positioning tasks
- Highest repeatability mechanical switch available
- Repeatability is 1 micron (40 millionths of an inch)
- Wide array of actuator styles and materials
- Square and tubular housings, IP 67
- Front and side-facing actuators

Encoders



- Incremental, absolute, magnetic
- Self-contained, high-resolution
- Single-turn/multi-turn; shaft/hollow shaft
- Withstands 200 g shock to prevent failures
- Easy integration into all control networks
- Standardized industry housings

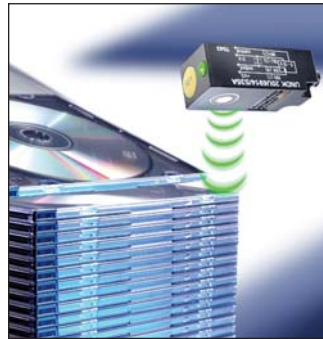
Baumer electric: A Leader in Miniaturized Sensor Technology

For over 50 years, Baumer electric has been an innovative leader in the design of miniature, high-precision sensors. In fact, miniaturization is one of our specialties. Baumer electric compact sensors are durable, reliable and offer more functionality — all without compromise in sensing range or performance. As the demand for miniaturized sensing solutions grows, Baumer electric will continue to lead the way. Here are just a few examples:



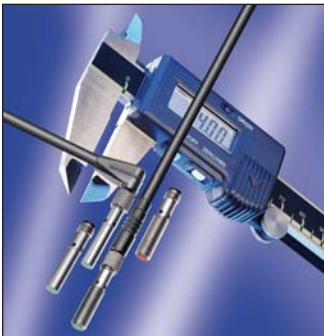
MINOS

- Smallest “teachable” triangulated background suppression sensor in the industry
- Remotely programmable for sensing distance
- Fully self-contained



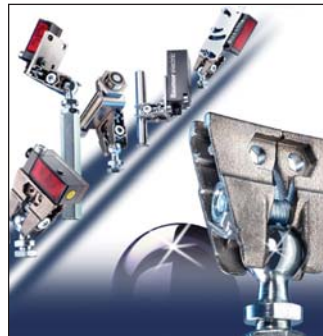
Ultrasonics

- Miniature housing and long sensing ranges
- Fully programmable on sensor, or remotely
- High resolutions and analog outputs



Inductive Proximity

- All models feature integral electronics
- Miniature tubular and rectangular housings
- Available with miniature M5 connectors



Mounting Kits

- *MINOFIX* brackets with integrated cable pass-thru
- *SENSOFIX* brackets allow sensor alignment in any direction

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