Leuze electronic

the sensor people

SMART
SENSOR
BUSINESS

INDUCTIVE SWITCHES

Extensive product range for automation technology

www.leuze.com

ПРОМЭЛЕКТРОНИКА / sales@prom-elec.com

RELIABLY DETECT METALLIC PARTS

Solid application know-how makes our inductive sensors the optimum solutions for your application.

INDUCTIVE SENSORS OPEN NEW POSSIBILITIES

In industrial automation, it is often necessary to reliably identify metals regardless of their type and the contamination of the environment. We offer a complete solution for this.

An array of designs, short reaction times and various scanning ranges make our inductive sensors the right solutions for nearly all areas of application. In combination with additional sensors and accessories from our extensive product range, we can offer our customers a perfectly tailored sensor solution.

Our range of products spans from small cylindrical designs for installation situations with limited space, e.g., in assembly and handling automation or in robotics, to robust metal versions for tough metal and woodworking machines right up to V4A stainless steel variants which excel in the food or pharmaceutical industry with IP 69K.

OUR COMMITMENT TO "SMART SENSOR BUSINESS" APPLIES HERE AS WELL

With our product line, we place special value on large scanning ranges and switching point stability over the entire temperature range. We achieve this through various technical detailed solutions as well as clever mounting and operating concepts. Our many years of application know-how complement these technical features with important practical and application knowledge. Competent service before, during and after choosing a product rounds out our offerings.

*easy*handling.

- Simple product selection in the selector under www.leuze.com on the basis of scanning range and design
- Optical indicators with all-round visibility for simple status display
- Standardized M8 / M12 connection technology or cable for quick and fault-free commissioning
- Sensor field adjustable in five directions corresponding to the detection task

*power*reserve.

- Models with high pressure resistance and for extreme environmental conditions
- Metal sleeve for the highest demands in mechanical engineering
- Stainless steel housings withstand even extreme loads
- High scanning ranges for demanding tasks and especially thin materials

*think*modular.

- Selectable output types, PNP / NPN or antivalent, with NC / NO switching function or switching contact, offer compatibility with various control systems
- Selectable connection: M8/M12 plug or cable
- Adapted performance levels in the product line: standard version, stainless steel version, AC / DC versions, correction factor 1 versions, miniature construction and increased scanning ranges

PROVEN SENSORS FOR DAILY TASKS

These inductive sensors are successfully used in machine and system construction for many standard tasks.

Cylindrical standard sensors
IS 208, IS 212, IS 218, IS 230

Housing	M8; M12; M18; M30
Scanning range	1.5 ... 15.0 mm
Switching frequency	Up to 5,000 Hz

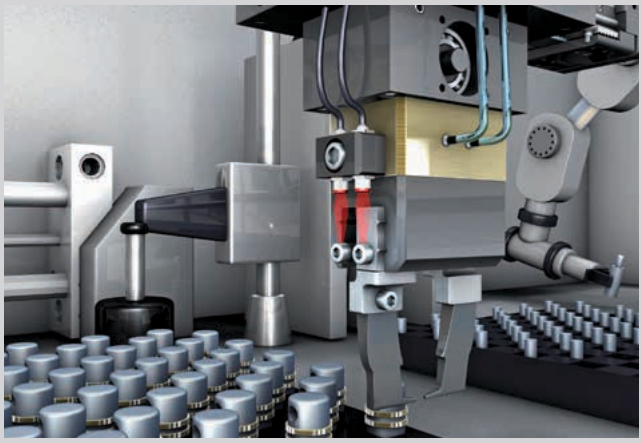
- Sensor for every application with finely graduated scanning ranges in all diameters
- Short housing models available for use in confined spaces
- Larger operating ranges than with average available comparable types
- Bright status LEDs at the connection with display of the function reserve (flashing LED)
- NPN / PNP or antivalent outputs

Cubic standard sensors
IS 240, IS 244

Housing	40 × 12 × 26 mm / 40 × 40 × 67 mm 40 × 40 × 120 mm
Scanning range	20.0 ... 40.0 mm
Switching frequency	Up to 150 Hz

- Compact, cubic design enables space-saving integration and simple machine construction
- Simple and fast installation saves mounting time
- Clearly visible status display on the side to facilitate commissioning
- Optionally available with terminal compartment
- Complementary switching outputs

Detection of the gripper position



Load carrier detection

WHEN MORE POWER IS CALLED FOR

These devices are always the right choice if more power and greater function reserves are needed.

Sensors for higher requirements
IS 208, IS 212, IS 218, IS 230

Housing	M8; M12; M18; M30
Scanning range	3.0 ... 40.0 mm
Switching frequency	Up to 1,000 Hz

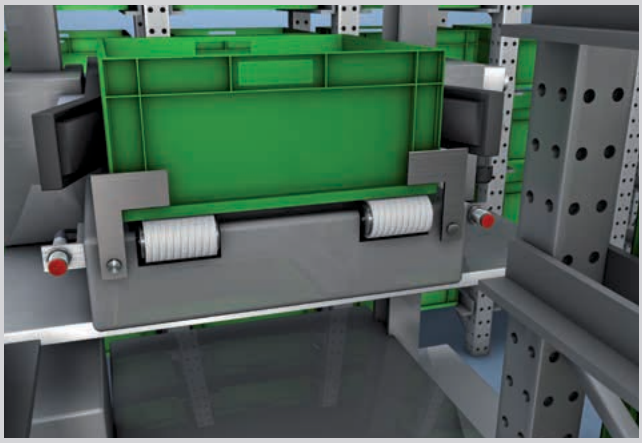
Stainless steel models
- Full function range in V4A housing
- For demanding environmental conditions

Large scanning range
- Very large scanning ranges, also for detecting moving parts in compact housing
- High sensitivity for the detection of small parts

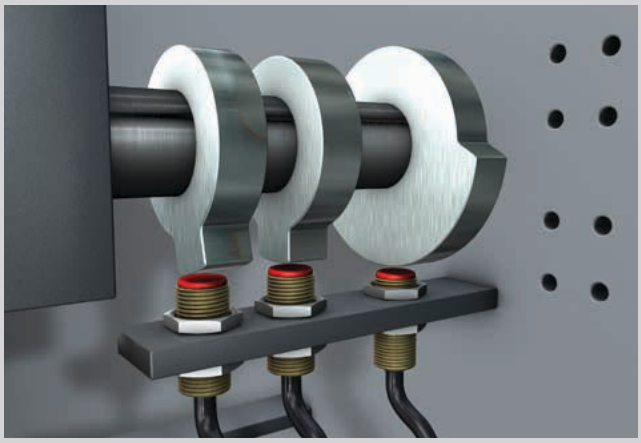
AC/DC device versions
- Devices with very large supply voltage range of 20 V to 240 V AC/DC
- Stainless steel sleeve
- Simple 2-wire connection

Material independence (correction factor 1)
- The same switching distances with various materials
- Extremely stable switching behavior for high functional reliability

Transport safeguarding

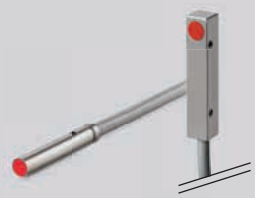


Rotational speed detection with camshaft



VERY SMALL OR VERY SPECIFIC, THE CHOICE IS YOURS

Due to the characteristics of their housing, these versions are suitable for special tasks.



Miniature designs
IS 204, IS 205, IS 206, IS 255, IS 288

Housing	Cylindrical: Ø 4 / 6.5 mm, M5 Cubic: 5 × 5 mm / 8 × 8 mm
Scanning range	1.5 … 3.0 mm
Switching frequency	Up to 5,000 Hz

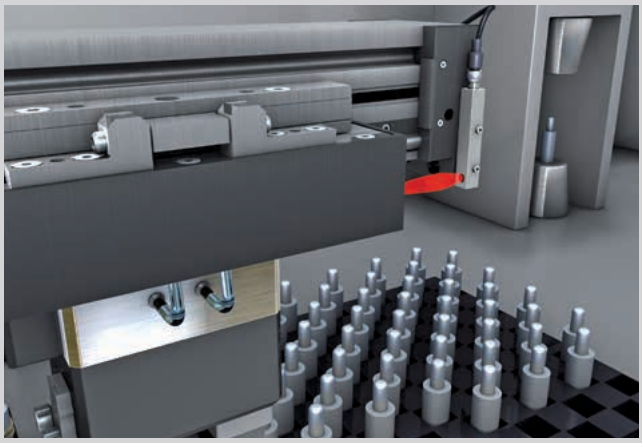
- With the laterally aligned sensor field, space- and, hence, cost-saving integration is possible
- Short response times allow reliable detection in dynamic processes
- Particularly suited for small parts detection and detection of work piece holder systems

Sensors for specific requirements
IS 206, IS 208, IS 212, IS 218, IS 230

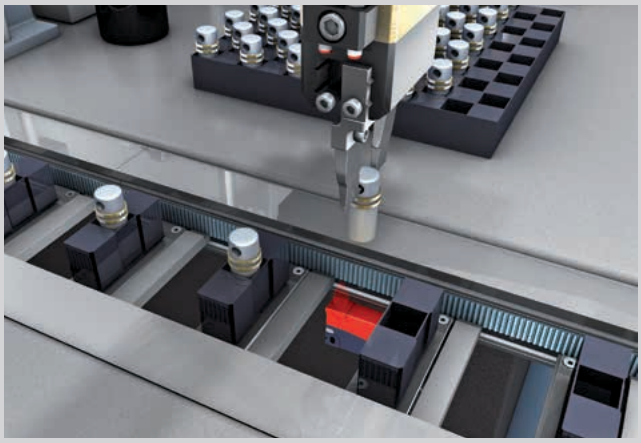
Housing	Ø 6.5 mm; M8; M12; M18; M30
Scanning range	3.0 ... 40.0 mm
Switching frequency	Up to 1,000 Hz

- Hygiene compatible due to stainless steel housing
- Pressure resistance
- Ecolab tested
- Material independence for models with correction factor 1

Detection of the linear unit in mechanical machining



Detection of the work piece holder



	IS 204	**IS 205**	**IS 206**	**IS 208**	**IS 212**
Dimensions	Ø 4.0 × 25 mm	M5 × 38 mm	Ø 6.5 × 34 mm / 35 mm	M8 × 35 mm / 45 mm	M12 × 37 mm / 45 mm
Scanning range limit Sn	1.5 mm (embedded)	1.5 mm (embedded)	2 / 3 mm (embedded)	1.5 / 2 mm (embedded) 2.5 / 4 mm (non-embedded)	2 / 4 / 6 mm (embedded) 4 / 8 / 10 mm (non-embedded)
Switching output	PNP NPN	PNP NPN	PNP NPN	PNP, NPN, antivalent	PNP, NPN, antivalent
Switching functions	NO NC	NO NC	NO NC	NO + NC	NO + NC
Degree of protection	IP 67	IP 67	IP 67	IP 67	IP 67 IP 69K
Connection	Cable	Cable M8 connector	Cable M8 connector	Cable M8 connector M12 connector	Cable M12 connector
Housing	Stainless steel sleeve	Stainless steel sleeve	Stainless steel sleeve	Stainless steel sleeve	Metal sleeve Stainless steel (316L)
Temperature range	–25 ... +70 °C	–25 ... +70 °C	–25 ... +70 °C	–25 ... +70 °C	–25 ... +70 °C Stainless steel: –25 ... +85 °C
Additional functions	Subminiature housing	Miniature housing	Miniature housing Increased scanning ranges	Available as R = 1 AC / DC versions available	Short designs Increased scanning ranges Stainless steel for the food industry Available as R = 1 AC / DC versions available

IS 218	IS 230	IS 255	IS 288	IS 240	IS 244
M18 × 37 mm / 48.5 mm	M30 × 51 mm / 63.5 mm	5 × 5 × 25 mm	8 × 8 × 40 mm / 59 mm	40 × 12 × 126 mm	40 × 40 × 67 mm / 120 mm
5 / 8 / 12 mm (embedded) 8 / 20 mm (non-embedded)	10 / 22 mm (embedded) 15 / 40 mm (non-embed-ded)	1.5 mm (embedded)	1.5 / 2 / 3 mm (embedded)	4 mm (embedded) 8 mm (non-embedded)	20 mm (embedded) 40 mm (non-embedded)
PNP, NPN, antivalent	PNP, NPN, antivalent	PNP NPN	PNP NPN	PNP NPN	PNP, NPN, antivalent
NO + NC	NO + NC	NO NC	NO NC	NO NC	NO + NC
IP 67 IP 69K	IP 67 IP 69K	IP 67	IP 67	IP 67	IP 67 IP 69K
Cable M12 connector	Cable M12 connector	Cable	Cable M8 connector	Cable M8 connector	Terminal M12 connector
Metal sleeve Stainless steel (316L)	Metal sleeve Stainless steel (316L)	Metal sleeve	Metal sleeve	Plastic	Plastic
–25 ... +70 °C Stainless steel: –25 ... +85 °C	–25 ... +70 °C Stainless steel: –25 ... +85 °C	–25 ... +70 °C	–25 ... +70 °C	–25 ... +70 °C	–25 ... +85 °C
Short designs Increased scanning ranges Stainless steel for the food industry Available as R = 1 AC / DC versions available	Increased scanning ranges Stainless steel for the food industry Available as R = 1 AC / DC versions available	Cubic subminiature housing	Cubic miniature housing	Bright status display	5-way sensor head Increased scanning ranges Clamp connection

OUR PROMISE TO YOU

SMARTER **PRODUCT USABILITY**

With regard to our product developments, we systematically place emphasis on the especially good usability of all devices. To this end, simple mounting and alignment are taken into account – just as the uncomplicated integrability of the sensors in existing field bus systems and easy configuration, e.g. via a web browser, are.

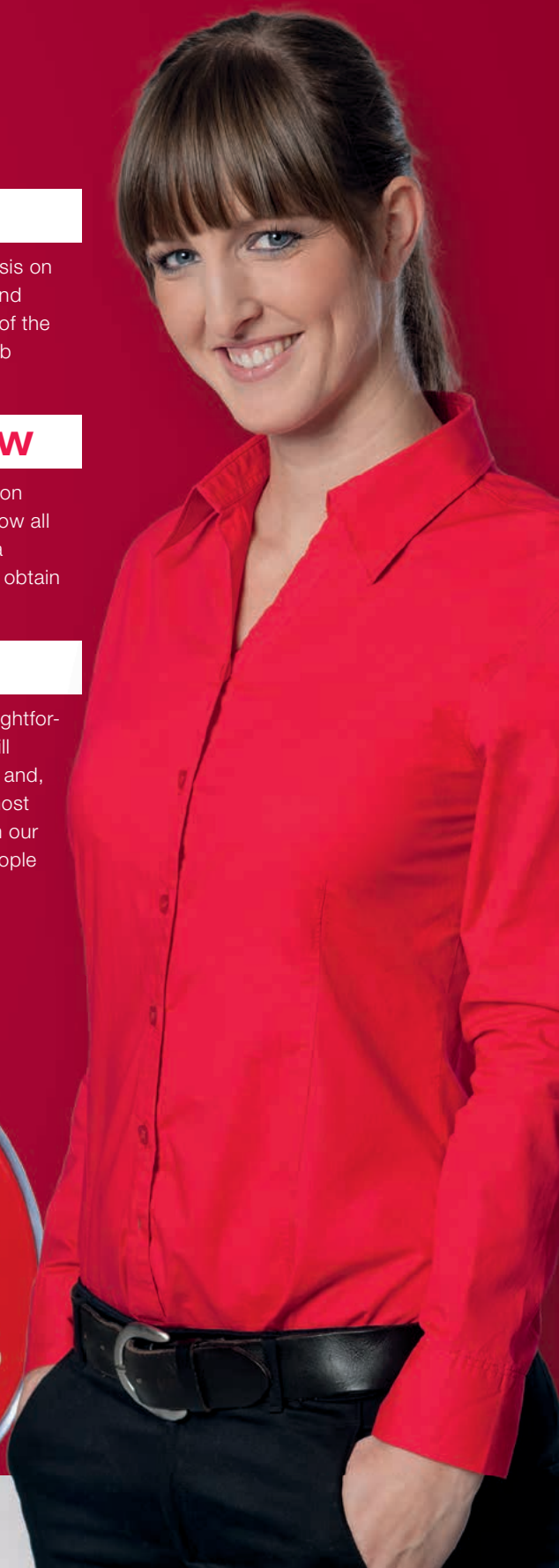
SMARTER **APPLICATION KNOW-HOW**

Whoever can do it all, can do nothing right. Which is why we concentrate on selected target sectors and applications. There, we are specialists and know all aspects inside out. For this purpose, we optimize our solutions and offer a comprehensive product range that makes it possible for our customers to obtain the absolute best solutions from a single source.

SMARTER **CUSTOMER SERVICE**

The technical and personal proximity to our customers, and a skilled, straightforward handling of queries and problems, are among our strengths – and will remain so. Consequently, we will continue to expand our service offerings and, indeed, also forge ahead in new directions to persistently redefine the utmost in customer service. Whether on the phone, on the Internet or on-site with our customers – regardless of when and where the expertise of the sensor people is needed at any time.

Info at: **www.leuze.com**



Katrin Rieker,
Sales Methods, Processes, Tools

Switching Sensors
Optical Sensors
Ultrasonic Sensors
Fiber Optic Sensors
Inductive Switches
Forked Sensors
Light Curtains
Special Sensors

Measuring Sensors
Distance Sensors
Sensors for Positioning
3D Sensors
Light Curtains
Forked Sensors

Products for Safety at Work
Optoelectronic Safety Sensors
Safe Locking Devices, Switches and Proximity Sensors
Safe Control Components
Machine Safety Services

Identification
Bar Code Identification
2D-Code Identification
RF Identification

Data Transmission / Control Components
MA Modular Connection Units
Data Transmission
Safe Control Components
Signaling Devices
Connection Technology and Passive Distribution Boxes

Industrial Image Processing
Light Section Sensors
Smart Camera

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Subject to modifications and errors