

SENSORS FOR AUTOMATION

Manufacturer company SKB Induction, Chelyabinsk, Russia

- Experience since 2004.
- Company's own developments.
- Modern component base.
- 2-year warranty.
- Production with automated technological equipment.
- Assortment of over 3,500 products. We modify the design to meet the needs of the consumer.



Our products:

<p>inductive sensors, max distance 120 mm 1 400 – 19 000 rubles</p>	<p>through-beam optical sensors, max distance 16 m 7 500 – 8 500 rubles</p>	<p>reflective optical sensors, max distance 6 m 5 000 – 10 000 rubles</p>	<p>diffuse optical sensors, max distance 1 m 3 500 – 9 000 rubles</p>
<p>ultrasonic sensors, max distance 6 m 18 000 – 73 000 rubles</p>	<p>capacitive sensors, max distance 50 mm 2 000 – 10 000 rubles</p>	<p>NAMUR sensors: inductive, capacitive, reed Ex max distance 35 mm 1 800 – 7 000 rubles</p>	<p>signal conversion interface blocks for NAMUR sensors 6 000 – 30 000 rubles</p>
<p>shaft angle rotation sensor, Hall effect max angle 360° 4 600 rubles</p>	<p>Hall effect linear motion sensor, max rod offset ±8 mm 11 500 rubles</p>	<p>speed and direction sensors based on the Hall effect, max frequency of 3500 Hz 7 700 rubles</p>	<p>reed sensors, max distance 30 mm 1 300 – 3 500 rubles</p>
<p>capacitive level sensors for boundary level 8 000 rubles</p>	<p>thermal (thermistor) liquid boundary level sensors 10 000 rubles</p>	<p>optical liquid boundary level sensor 89 000 rubles</p>	<p>float level sensors, reed switch type, max level-limit 1,5 m 3 000 – 18 000 rubles</p>
<p>temperature sensors, -40°... +400° 9 600 rubles</p>	<p>carbon dioxide sensors 23 000 rubles</p>	<p>electronic and electromechanical buttons 13 000 rubles</p>	<p>electrical connectors M12 1 000 – 3 500 rubles</p>

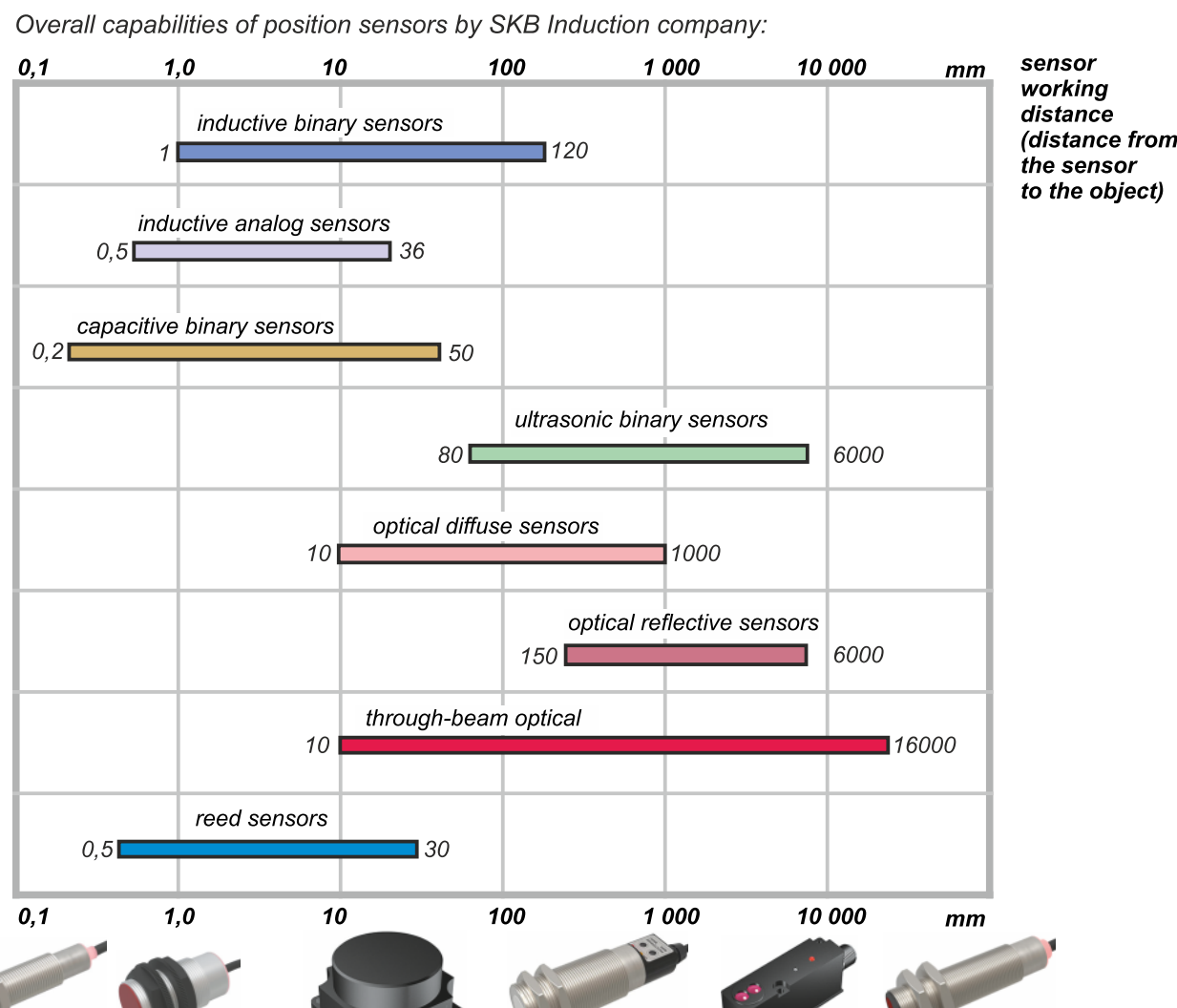
Reference prices, excluding VAT

POSITION SENSORS OF SKB INDUCTION COMPANY

Non-contact binary and analog proximity sensors

Purpose: Non-contact position sensors detect the proximity to objects while being at a certain distance from them. The distances from the sensors to the objects and the types of detectable objects can vary depending on the operating principle of the sensor. Objects can be made of metals, magnets, dielectrics, granular and liquid substances, solid and porous materials, and others.

Overall capabilities of position sensors by SKB Induction company:



SKB Induction company produces industrial-purpose position sensors and position sensors designed for special operating conditions:

- for low temperatures up to -55°C;
- for high temperatures up to +105°C;
- with IP68-rated housing protection;
- for high pressures up to 500 bar;
- for underwater applications with a depth of up to 30 m;
- for hazardous areas;
- for chemically aggressive environments;
- for elevated vibrations;
- according to the customer's specific technical requirements.

Eddy current sensors detect proximity to eddy current materials or measure the distance to an eddy current material.

Design options:

housing: - cylindrical from M5 to Ø55; - rectangular from 18x25x28 to 334x200x90 mm; - flush mountable; - non-flush mountable	housing material: - plastic; - plastic + steel; - aluminum; - brass; - stainless steel	output: - binary; - analog; - relay output; - Namur	distances: - from 1 mm to 120 mm	power supply: - direct current; - alternating current; - direct current Namur	load current: - up to 4 A
LED indicators: - available; - not available	available connection: - connector; - cable; - cable with connector; - terminals	minimum operating temperature: -60°, -55°, -45°, -40°, -25°, -15°, -10°, 0°, +15°C	maximum operating temperature: +35°, +50°, +55°, +65°, +75°, +105°C	protection rating: - IP65; - IP65/IP67; - IP65/IP68; - IP67; - IP67/IP68; - IP68	pressure of the measured medium: 10, 12, 20, 350, 500 bar

Capacitive sensors detect proximity to dielectric or conductive materials, both solid and liquid. Design options:

housing: - cylindrical M12, M18, M22, M30, M36, G3/8, G1/2, G3/4, Ø30, Ø55; - rectangular 50x28x16, 60x60x40, 66x28x20, 80x80x40 mm; - flush mountable; - non-flush mount	housing material: - plastic; - aluminum; - brass; - stainless steel	output: - binary; - relay output; - Namur	distances: - up to 50 mm	power supply: - direct current; - alternating current; - DC Namur	load current: - up to 4 A
LED indicators: - available; - not available	available connection: - connector; - cable; - terminals	minimum operating temperature: -45°, -25°, -15°, +15°C	maximum operating temperature: +35°, +65°, +75°, +105°C	protection rating: - IP65; - IP65/IP67; - IP67; - IP65/IP68; - IP68	pressure of the measured medium: - 1,5; - 4 bar

Ultrasonic sensors detect any objects.

Design options:

housing: - cylindrical M30	housing material: - plastic; - brass; - stainless steel	output: - binary; - analog	distances: = 10 ... 50, = 20 ... 100, = 25 ... 70, = 35 ... 600, = 200 ... 700 mm	power supply: - direct current	load current: - up to 200 mA
LED indicators: - available	available connection: - connector; - cable	minimum operating temperature: -35°, -25°C	maximum operating temperature: +60°C	protection rating: -IP65	

Optical through beam sensors detect beam interruption. Design options:

housing: - cylindrical M8, M18, M20; - rectangular 66x28x20, 88x28x20 mm	housing material: - plastic; - aluminum; - brass; - stainless steel	output: - binary	distances: =450, =2000, =13000, =16000 mm	power supply: - direct current	load current: - up to 400 mA
LED indicators: - available	available connection: - connector; - cable; - cable with connector; - terminals	minimum operating temperature: -45°, -25°, 0°C	maximum operating temperature: +65°, +75°C	protection rating: - IP65; - IP67; - IP65/IP68	radiation: - infrared

Optical reflective sensors detect the beam reflected by a reflector. Design options:

housing: - cylindrical M18; - rectangular 66x28x20, 80x80x40 mm	housing material: - plastic; - aluminum, - brass, - stainless steel	output: - binary; - relay	distances: =450, =2000, =4000, =6000 mm	power supply: - direct current; - alternating current	load current: - up to 4 A
LED indicators: - available	available connection: -connector; -cable; -terminals;	minimum operating temperature: -45°, -25°, 0°C	maximum operating temperature: +65°, +75°C	protection rating: - IP65, - IP67	radiation: - infrared

Optical diffuse sensors detect the beam reflected by any object. Design options:

housing: - cylindrical M8, M18, M20, M30; - rectangular 66x28x20 mm	housing material: - plastic; - aluminum, - brass, - stainless steel	output: - binary	distances: =150, =300, =450, =1000 mm	power supply: - direct current	load current: - up to 400 mA
LED indicators: - available	available connection: - connector; - cable; - cable with connector; - terminals	minimum operating temperature: -45°, -25°, 0°C	maximum operating temperature: +65°, +75°C	protection rating: - IP65; - IP67; - IP68	radiation: - infrared

Reed sensors detect proximity to a magnet. Design options:

housing: - cylindrical M8, M10, M12, M18, M24, M27, M30, M33, G3/4, G1, Ø21; - rectangular 29x6,4x4,5, 33x17x12, 35x20x15, 50x28x16, 66x28x20, 80x18x14, 110x94x62 mm	housing material: - plastic; - aluminum; - brass; - aluminum+brass; - stainless steel	output: - relay output NC, NO; - Namur	distances: - up to 10, 14, 25, 30 mm	switching current: - DC; - AC; - DC Namur	load current: - up to 350 mA
LED indicators: - available; - not available	available connection: - connector; - cable; - cable with connector; - terminals	minimum operating temperature: -60°, -50°, -45°, -40°, -25°C	maximum operating temperature: +65°, +75°, +80°, +105°, +120°, +125°, +160°C	protection rating: - IP65; - IP65/IP67; - IP67; - IP65/IP68; - IP67/IP68; - IP68	switching frequency: - up to 100 Hz

Hall effect sensors detect direction of movement, linear movement of the rod, measure shaft rotation angle, and velocity. Design options:

housing: - cylindrical M18, M20, M22, Ø32; - rectangular 42x25x29 mm	housing material: - plastic; - brass; - steel; - stainless steel	output: - binary; - analog	distances: - up to 10 mm; angle: - up to 360°	power supply: - direct current	load current: - up to 20 mA
LED indicators: - available	available connection: - connector; - cable	minimum operating temperature: -40°C	maximum operating temperature: +75°, +85°, +100°C	protection rating: - IP65/IP68; - IP67	switching frequency: - up to 3500 Hz

Temperature sensors and temperature switches measure the ambient temperature or control the threshold temperature of the environment.

Design options:

temperature measuring element: - semiconductor; - thermocouple	housing material: - plastic; - aluminum; - stainless steel	output: - binary; - thermocouple	process temperature: -40 ... +400 °C; switching thresholds: =0...+5 °C, =+3...+7 °C, =+10...+14 °C, =+10...+22 °C, =+78...+82 °C, =+80...+85 °C, =+88...+92 °C, =+98...+102 °C	protection rating: - IP54; - IP67; - IP68	pressure of the measured medium: up to 100 bar
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Level sensors detect the boundary levels of liquid substances, as well as granular and viscous substances. Design options:

level measurement principle: - ultrasonic; - capacitive; - thermal (thermistor); - optical; - float (reed); - cable-based	housing material: - plastic; - aluminum; - brass; - aluminum+brass; - stainless steel	output type: - binary	liquid level limit – contact between liquid and sensor: - up to 1.5 m (float), - up to 40 m (cable-based); non-contact measurement: using an ultrasonic sensor up to 6 m	power supply: - direct current	load current: - up to 400 mA
LED indicators: - available; - not available	available connection: - connector; - cable; - cable with connector; - terminals	minimum operating temperature: -60°, -50°, -45°, -40°, -25°, 0°C	maximum operating temperature: +60°, +65°, +75°, +80°, +100°, +105°, +120°, +125°, +160°C	protection rating: - IP65/IP67; - IP67; - IP65/IP68; - IP68	pressure of the measured medium: up to 25 bar

Carbon dioxide sensors not only detect the concentration of CO₂, but also monitor the temperature of the environment or the upper temperature limit of the environment.

Design options:

concentration meter: - semiconductor element	housing material: plastic	output type: - binary; - analog; - RS 485	concentration CO₂: =400...20000 ppm	protection: IP54	in the housing: - M12 connector; - LED indicator
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Converters (coupling modules); input: NAMUR; output: standard signal; galvanic isolation for explosion-proof sensors.

Design options:

the number of connectable NAMUR sensors: - up to 4	housing material: - plastic	dimensions: - 45x75x110, - 70x75x110, - 100x75x110 mm	power supply: - up to 4 relay, - up to 4 electronic	current type: - direct current 24 V DC, - alternating current 110 - 220 V AC	operating temperatures: -25°...+70°C
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Connectors for sensors and automation devices. Design options:

structure: - straight M12; - angled M12; - assemble M12	number of contacts: = 2 = 3 = 4	built-in cable: - length 2, 3, 5, 10, 15, 25 m; - without a built-in cable	external insulation of built-in cables: PVC	protection rating: IP67	operating temperature: -40°...+85°C
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Touch buttons for contactless switching. Design options:

structure: integrated capacitive sensor with switching distance of up to 40 mm	switched circuits: two circuits with galvanic isolation	integrated indication: LED indicators	external materials: tecaform	protection rating: IP67	operating temperature: -40°...+60°C
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