SPECIALS

p·u·l·s·o·t·r·o·n·i·c

p-u-l-s-o-t-r-o-n-i-c

The company

Since more than 50 years the brand PULSOTRONIC stands for innovative automation solutions in industry and in the automotive branch. A wide program of sensor technology, metal detection and peripheral systems garantees our customers troughout the world an optimum basis for realising demanding applications. Our product range comprehends much more than standard products. We develop custom-specific solutions as single components or complex systems. The large technology range creates the pre-requisites that make us come up to our customers' expectations: to deliver the perfect product for each application!

Technologies

SMT and circuit assembling
Electronics development
Cable assembling
Potting technology
EMC-laboratory
Rapid prototyping

Program

Sensors

- Inductive sensors
- Inclination sensors
- Angle sensors
- Acceleration sensors
- Strain gauges sensors
- High temperature resistant sensors
- Halleffect sensors
- Capacitive sensors
- Magnetoresistive sensors
- Current transducer sensors
- Acoustic and ultrasonic sensors
- Temperature resistant sensors
- Optoelectronic sensors
- Touch sensors
- Laser sensors
- Colour sensors
- Radar sensors
- Customized products and solutions

Connector systems

Metal detection

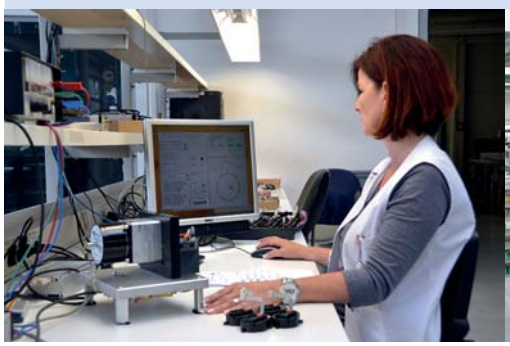


TABLE OF CONTENTS

DESIGNATION CODE

Example: **K J 10 - M 30 M B 45 - D P S - V1 - X0000**

1	2		3	4	5	6	7		8	9	10		11		12

1 = Working principle

A	Acoustic		
B	Acceleration sensor		
C	Capacitive		
D	Strain gauge sensor		
H	Hall-effect		
J	Inductive	**JR**	Inductive ring
		JF	Inductive surface
		JG	Inductive slot
		JD	Metal face
M	Magnetoresistive		
N	Inclination sensor		
R	Reed-contact		
W	Angle sensor		

2 = Switching distance / range

3 = Design

D	Ring housing / aperture
G	Cylindrical housing without thread
M	Cylindrical housing with metrical thread
Q	Square housing

4 = Housing diameter / edge length

5 = Housing material

A	Aluminium
E	Stainless steel
K	Plastic
M	Brass, nickel plated
T	PTFE

6 = Installation

B	Shielded
N	Non shielded

7 = Tube length

8 = Operating voltage

AZ	AC alternating current voltage
D	DC direct current voltage
VZ	AC/DC all voltages

9 = Type of output signal

AN	Analog	**ANI**	Current output
		ANU	Voltage output
CAN	CAN-bus interface		
N	NPN		
NA	Namur		
P	PNP		
Z	Two wire		

10 = Function

A	Changeover
I	Impulse output
Ö	N.C.
S	N.O.
U	Switchable

11 = Type of connection

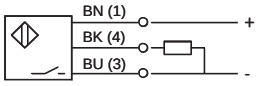
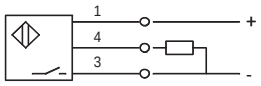
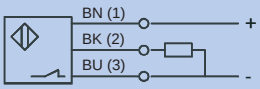
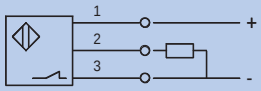
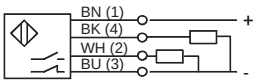
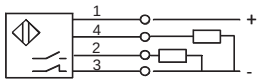
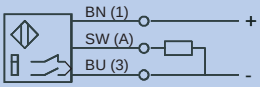
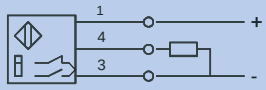
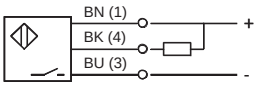
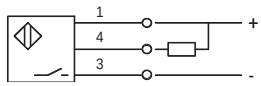
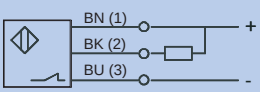
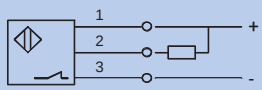
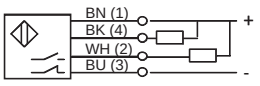
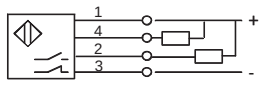
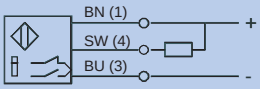
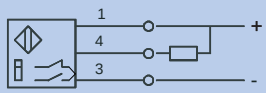
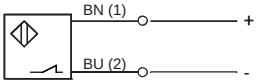
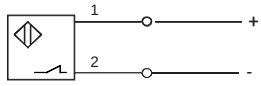
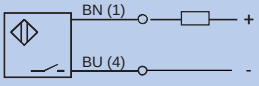
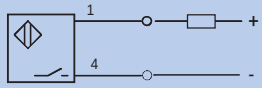
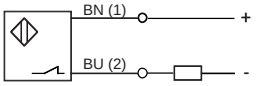
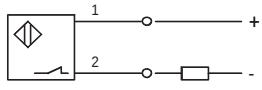
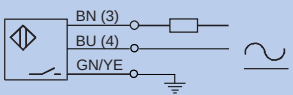
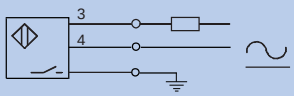
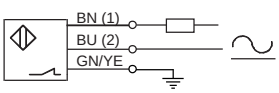
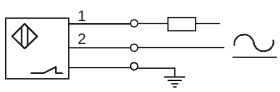
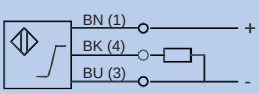
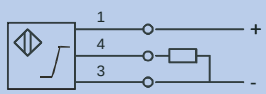
V1	M8 screw-/snap-in
V2	M12 metal
V2/1	M12 plastic
V3	M5 metal
V4	Amphenol Tuchel
V6	Brad Harrison
V7	Valve connector type A
V8	M8 snap-in only
V9	Torson
V11	AC connector 1/2" UNF
V12	M18 plastic
VE	Euchner connector
RS232	Data interface
PG	Thread joint PG
Mxx	Tread joint metrical

others as requested

12 = Additional marks

AM	Sensing face in centre
FE	Reduction 1 to steel / iron
HT	High temperature
NF	Reduction 1 to nonferrous metal
SF	Weld field immune
T	Enlarged temperature range
W	Angled sensing face / angled cable exit
X	Customized design with detailled description

CIRCUIT DIAGRAMS

Circuit diagram for	Cable / clamp connection	Connector V1 ... V9
DPS DC PNP N.O.		
DPÖ DC PNP N.C.		
DPA DC PNP changeover		
DPU DC NO/NC switchable		
DNS DC NPN N.O.		
DNÖ DC NPN N.C.		
DNA DC NPN changeover		
DNU DC NO/NC switchable		
NA Namur EN 60947-5-6		
DZS DC two-wire N.O.		
DZÖ DC two-wire N.C.		
AZS/VZS AC/DC two-wire N.O.		
AZÖ/VZÖ AC/DC two-wire N.C.		
Analog		

INCLINATION SENSORS

Technical data

Inclination sensors detect the absolute deviation from a horizontal plane. This product group includes analog inclination sensors as well as the latest generation with CANOpen-connection, digital AC-switching outputs for the direct control of hydraulic valves or one- or two-axe design. By using micro-mechanic elements all inclination sensors are conform to RoHS. The modular design of the housing allows the use of JPT- or M12-connectors as well as fixed cable options as needed.

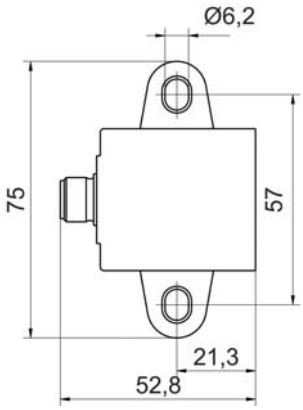
Inclination sensors from Pulsotronic monitore agricultural machines, wind energy plants or industrial trucks. On request we arrange the input and output parameters according to your requirements.

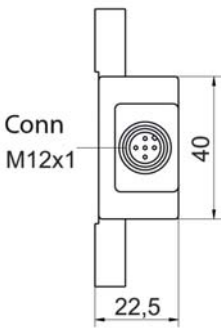
	Type analog voltage	Type analog current
Number of inclination axes	1	1
Mounting	horizontal	horizontal
Operating voltage U_b	10 - 30V DC	10 - 30V DC
Output	voltage 1 - 10V	current 4 - 20mA
Output at 0° / 24V DC	5V +/- 0,1V	12mA +/- 1mA
Output at -90° and U_b = 24V	0V	4mA
Output at +90° and U_b = 24V	10V	20mA
Max. operating current I_b	≤ 15mA	≤ 35mA
Load resistor R_L	≥ 10kOhm	≥ 10kOhm
Repeat accuracy	5%	5%
Operating temperature T_a	-40°C ... 85°C	-40°C ... 85°C

Selection chart

Article-number	Designation	Inclination	Output function Analog	Connector
08330000066	**KN5-Q40KN-ANU-V2**	+/- 5°	0-10V DC	M12
08330000107	**KN15-Q40KN-ANU-V2**	+/- 15°	0-10V DC	M12
08330000500	**KN30-Q40KN-ANU-V2**	+/- 30°	0-10V DC	M12
08330000075	**KN45-Q40KN-ANU-V2**	+/- 45°	0-10V DC	M12
08330000501	**KN60-Q40KN-ANU-V2**	+/- 60°	0-10V DC	M12
08330000502	**KN75-Q40KN-ANU-V2**	+/- 75°	0-10V DC	M12
08330000095	**KN90-Q40KN-ANU-V2**	+/- 90°	0-10V DC	M12
08330000087	**KN5-Q40KN-ANI-V2**	+/- 5°	4-20mA	M12
08330000503	**KN15-Q40KN-ANI-V2**	+/- 15°	4-20mA	M12
08330000504	**KN30-Q40KN-ANI-V2**	+/- 30°	4-20mA	M12
08330000067	**KN45-Q40KN-ANI-V2**	+/- 45°	4-20mA	M12
08330000080	**KN60-Q40KN-ANI-V2**	+/- 60°	4-20mA	M12
08330000505	**KN75-Q40KN-ANI-V2**	+/- 75°	4-20mA	M12
08330000076	**KN90-Q40KN-ANI-V2**	+/- 90°	4-20mA	M12

other inclinations and two-axis types are optinal available





all data in mm

ACCELERATION SENSOR

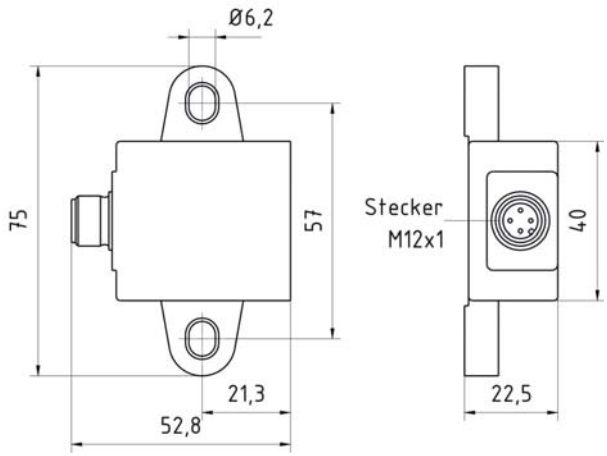
Technical data

Acceleration sensors detect vibrations, seismic activity, inclination in static systems and linear acceleration in machines, buildings and movable goods. On the basis of a micro-electromechanic system (MEMS) this product group includes sensors with analog current- or voltage output, direct BUS-connection or adjustable switching thresholds. The modular design of the housing allows the use of JPT- or M12-connectors as well as fixed cable options as needed.

	Type analog voltage	Type analog current
Acceleration	+/- 1,7g	+/- 1,7g
Mounting	horizontal	horizontal
Operating voltage U_b	12-30V DC	12-30V DC
Output	voltage 1 ... 9V	current 4 ... 20mA
Output at 0g	5V	12mA
Output at -1,7g	1V	4mA
Output at +1,7g	9V	20mA
Operating current I_b	≤ 15mA	≤ 35mA
Threshold frequency	10Hz	10Hz
Load resistor R_L	≥ 10kOhm	≥ 10kOhm
Repeat accuracy	≤ 5%	≤ 5%
Operating temperature T_a	-40°C ... +85°C	-40°C ... +85°C

Dimensions

Please ask for further acceleration-ranges in our portfolio.
Gladly we'll support you!



all data in mm

ANGLE SENSORS

Description

With the newest product line **ROTARY SENSORS KW** PULSOTRONIC expands the portfolio with magnetic sensors for external magnets. Unbeatable advantages of these kind of rotational sensors are:

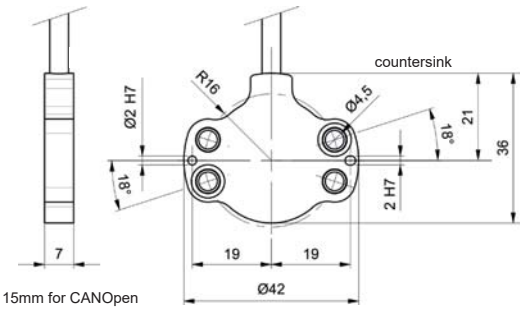
- robust and easy mechanical design with a high protection degree up to IP 69k
- movings with tolerances for all axis without external utilities
- separate assembling of sensor and magnet (component assembly)
- ultraflat housings from 7mm height and standard housing Q25 / M30
- cost efficient
- termination with M12 pigtail, Superseal JPT or open cable

(all specification refer to a standard magnet NdFeB 55/100pw 12x12x4)

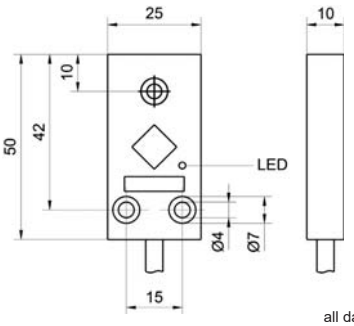
Functional Base	magnetic (Hall)
Mounting	Sensor and magent separated
Operating Voltage	10 ... 35 VDC
Sensing Range	1,5 ... 3,5 mm linear up to 6 mm non-linear
Current Consumption	15 mA single / 25 mA duale
Angle Range	0° to 360 ° (teachable by factory setting)
Resolution	12 Bit
Linearity	≤ +/- 1% (teachable linear set of characteristic curves)
Channels	single or duale (full redundant)
Output Signal / Level	Analog voltage, PWM, SPI, Fieldbus - communication at request
Overvoltage / Reverse Polarity	protected / protected
Operating Temperatur	-40 °C ... +85 °C (up to 125 °C at request)
Protection Degree	IP 67 acc. to EN 60529 - IP69k depends on mechanical design
Displacement Tolerances	Axial offset (reeling circle) to 1 mm / Tilting tolerance to 2,5 °

Selection chart

Type Number	Type Name	Design Sensor	Output-function Analog/CAN	Termination	Design Magnet
08330001132	**KW360-D42KN7-ANU5**	D42 x 7	0,5 - 4,5 V	2m cable	D42 x 7
08330001139	**KW360-D42KN7-ANU**	D42 x 7	1 - 10 V	2m cable	D42 x 7
08330001140	**KW360-D42KN7-ANI**	D42 x 7	4 - 20 mA	2m cable	D42 x 7
08330001135	**KW360-D42KN7-ANI-X0392**	D42 x 7	4 - 20 mA	M12 pigtail	D42 x 7
08330001141	**KW360-D42KN15-CANO**	D42 x 7	CANOpen	2m cable	D42 x 7
08330001133	**KW360-Q25KN10-ANU5**	Q25x50x10	0,5 - 4,5 V	2m cable	Q28x16x10
08330001136	**KW360-Q25KN10-ANI**	Q25x50x10	4 - 20 mA	2m cable	Q28x16x10



15mm for CANOpen



all data in mm

TUBE SENSOR

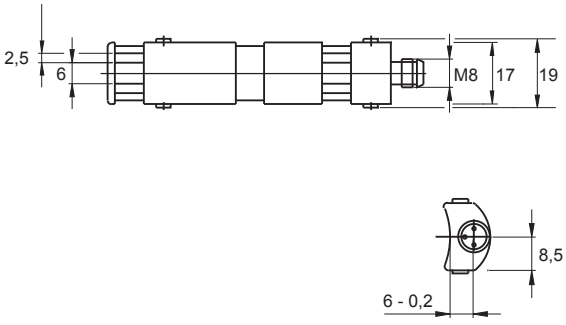
Technical data

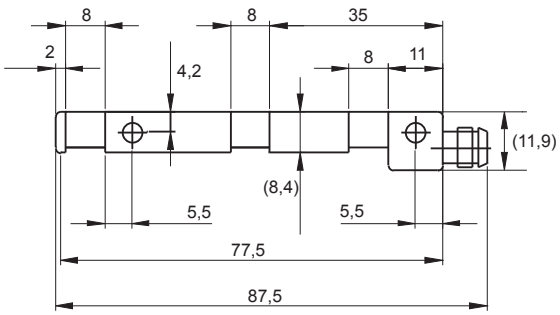
The tube sensor detects moving metallic pieces in hoses or ducts. In contrast to conventional ring sensors the hose sensor can be mounted much easier and faster - the customer saves time and space during installation. The sensors of the new generation work after the principle of dynamic, simultaneously and static. Therefore, we can detect congestion states and smallest components.

Article number	Designation	Function	Termination
08310000903	**KJ16-Q16KN-DPS-V1**	dynamic 200ms	M8
08310001526	**KJ10-Q16KN-DPS-V1-X1028**	static 100ms	M8
08310001105	**KJ10-Q16KN-DPS-V1**	static	M8
08310001891	**KJ16-Q16KN-DPS-X0337**	static/dynamic 100ms	Pigtail M12

Mounting	non shielded
Operating voltage U_b	10 - 30V DC
Ripple voltage of U_b	≤ 10%
Voltage drop U_d	≤ 2,4V
Max. load current I_e	≤ 200mA
Off-state current I_o	≤ 10mA
Residual current I_r	≤ 10µA
Max. switching frequency	300Hz
Switching distance	16mm
Hysteresis H	≤ 15%
Repeatability R	≤ 10%
Pulse delay	max. 200ms (selectable)
Operating temperature T_a	-25°C ... +70°C
Temperature drift	≤ 10%
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Status indicator	LED
Housing material	PA 6.6 black
Front cap	-
Termination	connector M8 3-pole (Pigtail M12 on enquiry)

Dimensions





all data in mm

INDUCTIVE PRESSURE-RESISTANT SENSORS

Technical data

The product range of PULSOTRONIC includes high pressure-resistant products, which developed and optimised for different applications. With a M12 plug-in connection or optional with M12 Pigtail connector. The maximum switching distance is 2mm. By using a complete closed stainless steel face these sensor types are especially qualified for application in aggressive environmental, in hydraulik devices or in foodstuff industry. Pulsotronic offers pressure-resistant sensors generally with an extended temperature range and up to 500bar pressure resistance. WashDown application and operation areas up to protection of IP68 / IP69K are also suitable. The sensors are available with 14,9mm or 17,9mm frontends (12,9mm at request).

Operating voltage U_b	10 - 30 VDC
Voltage drop U_d	< 2,4V
Max. load current I_e	≤ 200 mA
Off-state current I_0	≤ 10 mA
Residual current I_r	≤ 0,01 mA
Max. switching frequency f	≤ 400 Hz
Hysteresis H	≤ 15%
Operating temperature T_a	- 25°C ... + 100°C (only lenght 50mm, 90°C)
Temperature drift	≤ 10%
Reproducibility	≤ 5%
Protection class	IP 68 (IP69K with suitable M12 plug)
Protected against polarity/short circuit	Yes/yes
Housing material	Stainless steel
Front cap	Stainless steel

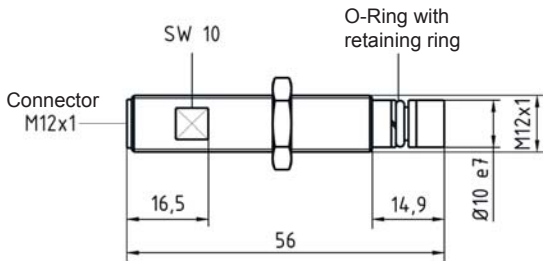
Selection chart

Article-number	Designation	Pressure in bar	Lenght pressure range in mm	Drawing (following page)
08310002400	**KJD2-M12EB50-DPS-V2**	500	14,9	G
08310002401	**KJD2-M12EB50-DPÖ-V2**	500	14,9	G
08310002402	**KJD2-M12EB50-DPS-V2**	500	17,9	H
08310002403	**KJD2-M12EB50-DPÖ-V2**	500	17,9	H
08310001749	**KJD2-M12EB56-DPS-V2**	500	14,9	A
08310002404	**KJD2-M12EB56-DPÖ-V2**	500	14,9	A
08310001746	**KJD2-M12EB56-DPS-V2**	500	17,9	B
08310002405	**KJD2-M12EB56-DPÖ-V2**	500	17,9	B
08310002406	**KJD2-M12EB69-DPS-V2**	500	14,9	E
08310002407	**KJD2-M12EB69-DPÖ-V2**	500	14,9	E
08310002408	**KJD2-M12EB69-DPS-V2**	500	17,9	F
08310002409	**KJD2-M12EB69-DPÖ-V2**	500	17,9	F
08310002410	**KJD2-M12EB78-DPS-V2**	500	14,9	D
08310002411	**KJD2-M12EB78-DPÖ-V2**	500	14,9	D
08310001781	**KJD2-M12EB78-DPS-V2**	500	17,9	C
08310002412	**KJD2-M12EB78-DPÖ-V2**	500	17,9	C

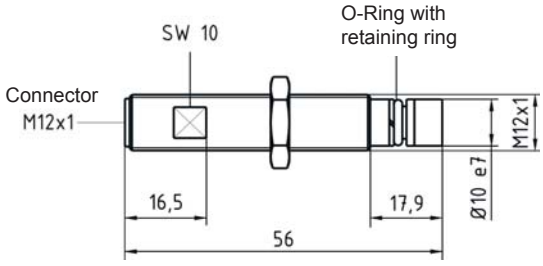
INDUCTIVE PRESSURE-RESISTANT SENSORS

Dimension

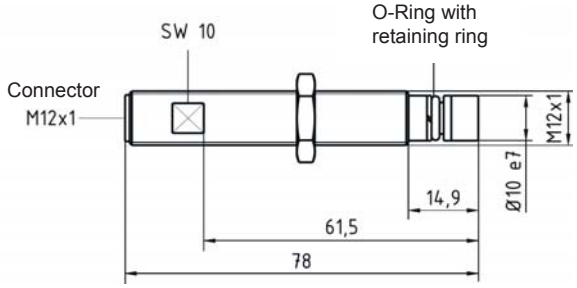
A)



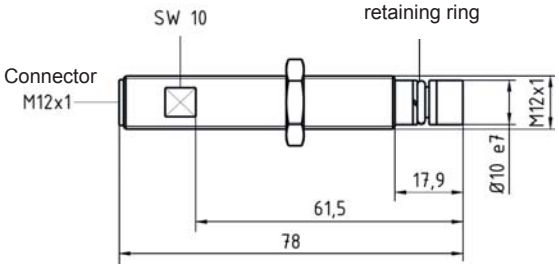
B)



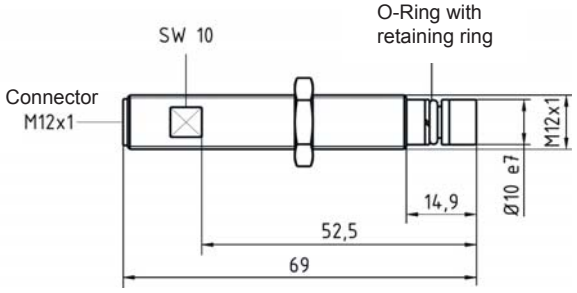
C)



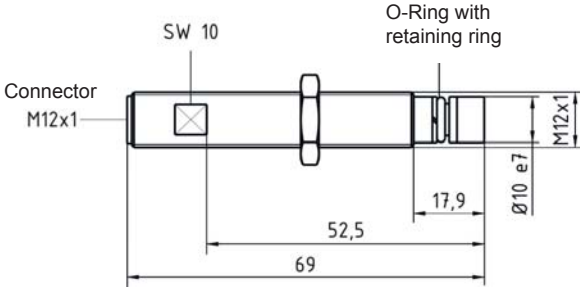
D)



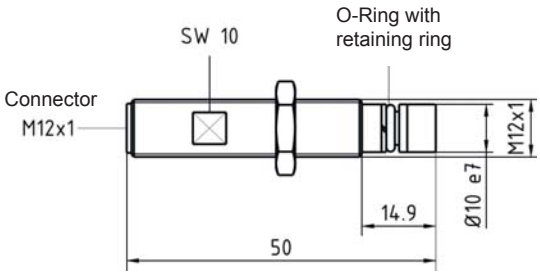
E)



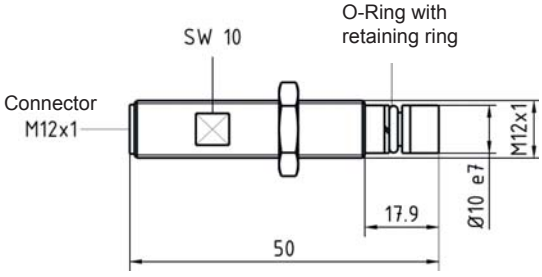
F)



G)



H)



all data in mm

HIGH TEMPERATURE-RESISTANT SENSORS

GENERAL DATA

Sensors for applications that require an enlarged operating temperature range from -40°C ... 180°C. These sensors are especially used in applications that demand a high dependability in extreme temperatures like in steel mills, blast furnaces and in the food industry.

Operating voltage U_b	10-35V DC
Ripple voltage of U_b	≤ 10%
Voltage drop U_d	≤ 2,0V
Output function	PNP-N.O. (others as request)
Of state current I_o	≤ 10µA
Residual current I	≤ 15mA
Hysteresis H	≤ 15%
Repeatability R	≤ 10%
Temperature drift	≤ 20%
Protection class	IP65
Status indicator	no LED´s
EMV-standard	according to EN 60947-5-2
Housing material	V2A
Front cap	Vectra®

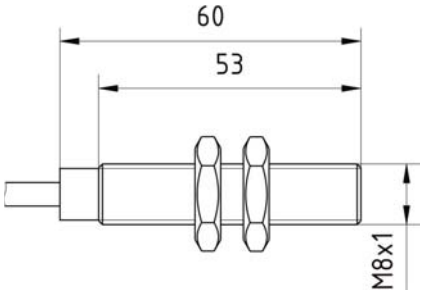
Selection chart

Article number	Designation	Mounting	Max. switching frequency	Switching distance in mm	Termination cable	Temp. range	Drawing (following page)
08310001715	**KJ2-M8EB60-DPS-HT140-X0240**	shielded	600Hz	2	2m Teflon	140	A
08310000959	**KJ2-M8EB60-DPS-HT140-X0202**	shielded	600Hz	2	2m Silicone	140	A
08310002500	**KJ3-M12EB60-DPS-HT150-X0240**	shielded	500Hz	3	2m Teflon	150	B
08310000812	**KJ3-M12EB60-DPS-HT150-X0202**	shielded	500Hz	3	2m Silicone	150	B
08310002501	**KJ4-M12EN60-DPS-HT150-X0240**	non shielded	500Hz	4	2m Teflon	150	C
08310002502	**KJ4-M12EN60-DPS-HT150-X0202**	non shielded	500Hz	4	2m Silicone	150	C
08310002503	**KJ5-M18EB70-DPS-HT180-X0240**	shielded	400Hz	5	2m Teflon	180	D
08310001716	**KJ5-M18EB70-DPS-HT180-X0202**	shielded	400Hz	5	2m Silicone	180	D
08310002504	**KJ8-M18EN80-DPS-HT180-X0240**	non shielded	400Hz	8	2m Teflon	180	E
08310001737	**KJ8-M18EN80-DPS-HT180-X0202**	non shielded	400Hz	8	2m Silicone	180	E
08310001728	**KJ10-M30EB70-DPS-HT180-X0240**	shielded	200Hz	10	2m Teflon	180	F
08310002505	**KJ10-M30EB70-DPS-HT180-X0202**	shielded	200Hz	10	2m Silicone	180	F
08310002506	**KJ15-M30EN80-DPS-HT180-X0240**	non shielded	200Hz	15	2m Teflon	180	G
08310000920	**KJ15-M30EN80-DPS-HT180-X0202**	non shielded	200Hz	15	2m Silicone	180	G

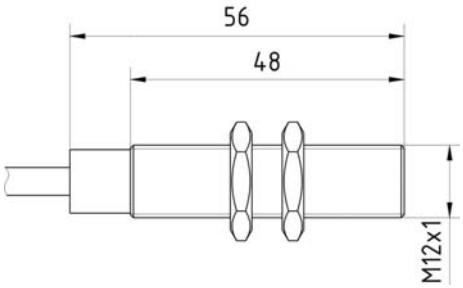
HIGH-TEMPERATURE RESISTANT SENSORS

Dimension

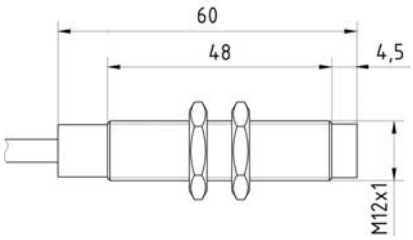
A)



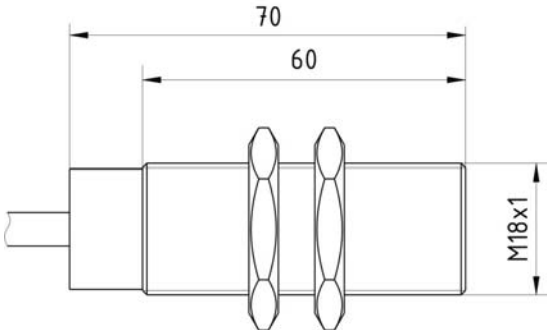
B)



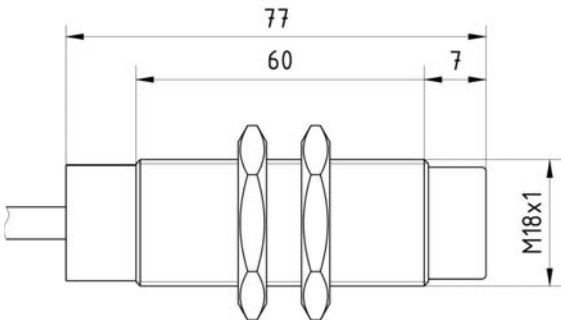
C)



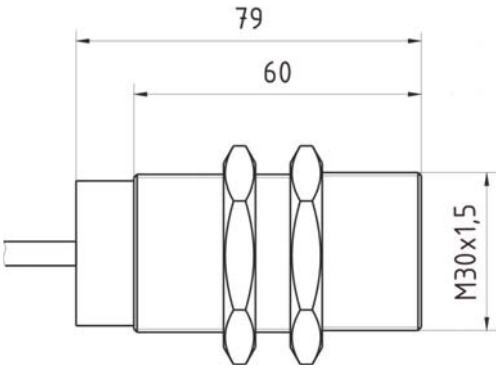
D)



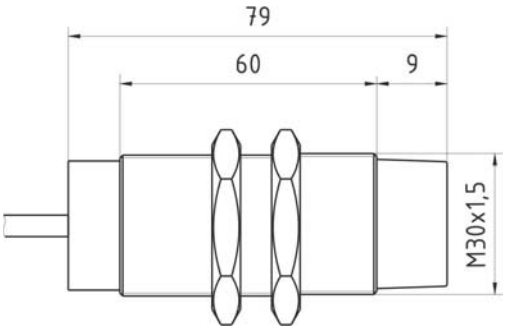
E)



F)



G)



alle Angaben in mm

ACOUSTIC SENSOR

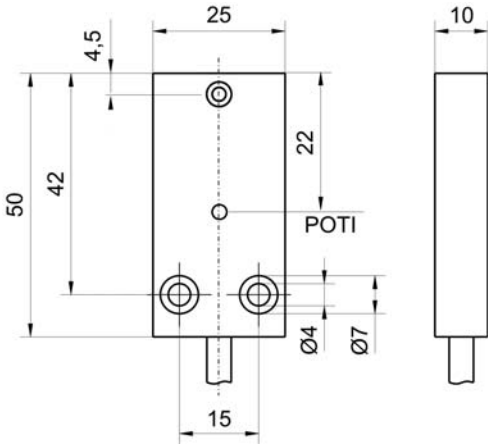
Technical data

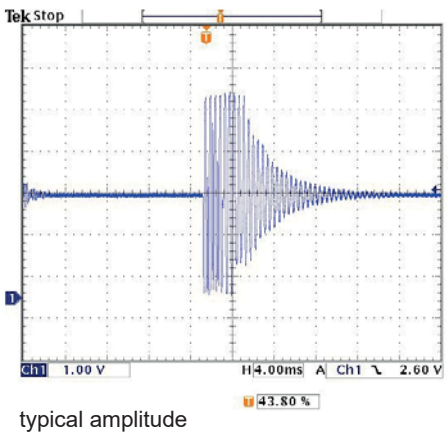
The acoustic sensor detects defined static noise or switch-sounds on machines, devices and plants. Due to protection class IP67, an enlarged operating temperature up to 85°C and an adjustable switching threshold this sensor even is proper for external applications.

Article number	Designation
08340001010	**KA1-Q25KB-DPÖ**

Mounting	non shielded
Operating voltage U_b	10 - 30V DC
Ripple voltage of U_b	≤ 10%
Voltage drop U_d	≤ 2,4V
Output function	PNP N.C.
Response time at output function	120ms
Max. load current I_e	≤ 16mA
Off-state current I_o	≤ 10mA
Switch sensitivity	adjustable
Fluctuation stress	attenuated against impact sound
Hysteresis H	≤ 15%
Repeatability R	≤ 10%
Operating temperature T_a	-25°C ... +85°C
Temperature drift	≤ 10%
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Housing material	plastic PA 6.6
Termination	2m cable PVC 3 x 0,34mm² (other cable lenghts as requested)

Dimensions



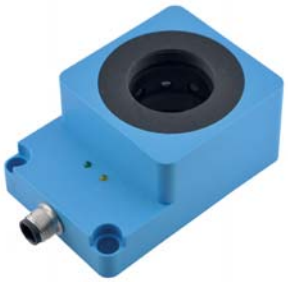


typical amplitude

all data in mm

OPTICAL RINGS

Technical data



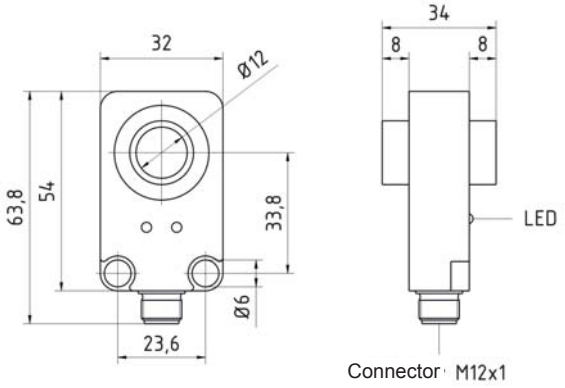
Optoelectronic ring sensors help to control the material flow within the transparent tube. Furthermore, the device has the same proven features like the adaptation to optical characteristics of the material feed, adjustable switch shafts as well as dynamic or static output functions. Ring sensors of Pulsotronic operate at temperatures from 0°C till +60°C. The housing material is plastic.
A number of light barriers create a light curtain within the ring and the interruption of the light ray results in a transformation within the integrated amplifier and thereby leads to a switching signal.

Illumination	IR 880 nm
Output	PNP
Switching output	NO
Operating voltage U_b	10 - 30 VDC
Max. load current I_e	200 mA
Acquisition frequency	10 Hz (by impulse-pause ratio 1:1)
Pulse stretching	ca. 50 ms fixed setting
Response time	0,05 ms
Counting pulse	dynamic (< 0,425 s)
Causing clogging	static (> 0,425 s)
Operating temperature T_a	0 ... +60°C
Connection	Connector M12, 4-pole
Adjustment of the sensibility	Optimum value through teachen (Compensation feed tube)
Status indicator	IP 64
Housing material	Plastic

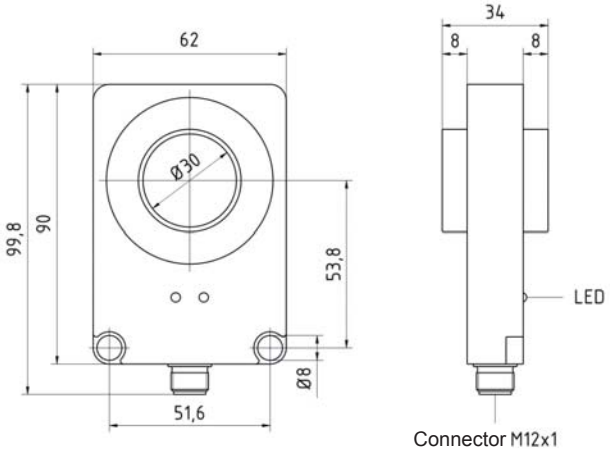
Selection chart

Article-number	Designation	Tube	No-load current	Dynamic control device	Dynamic responsivity	Dra-wing
08363000500	**KOER-D12KB-DPS-V2-IR**	12mm	< 50mA	adjustable over Potenziometer		A
08363000600	**KOER-D30KB-DPS-V2-IR**	30mm	< 20mA		fixed setting	B

A)



B)



OVERSPEED MONITOR

General data

Overspeed monitors limit electronically rotor- or gearbox speed upwards and downwards. Sensor-specific they either change the speed limiting via potentiometer or electronically via microcontroller. Delay-times or hysteresis values can be taught-in.

The drawings for this sensors are shown on the following page.

	SJ10-M30...	KJ5-M18...	KJ15-Q40...
Mounting	shielded	shielded	shielded
Operating voltage U_b	10 - 30V DC	10 - 36V DC	10 - 30V DC
Ripple voltage of U_b	≤ 10%	≤ 10%	≤ 10%
Max. load current I_e	200mA	200mA	≤ 400mA
Off-state current I_o	≤ 30mA	≤ 30mA	≤ 30mA
Residual current I_r	≤ 10µA	≤ 10µA	≤ 10µA
Response time (adjustable)	0,5 ... 10sec.	-	0,5 ... 10sec.
Hysteresis H	≤ 15%	0,0% ... 25,5% (teachable)	≤ 20%
Repeatability R	1,0%	1,0%	≤ 5%
Operating temperature T_a	-25°C ... +70°C	-25°C ... +70°C	-25°C ... +70°C
Temperature drift	≤ 10% ≤	≤ 10%	≤ 10%
Status indicator	IP67	IP67	IP67
Housing material	LED yellow	LED yellow	LED yellow
Front cap	brass, nickel-plated	brass, nickel-plated	PBT
	PBT	PA 6.6	PBT

Selection chart

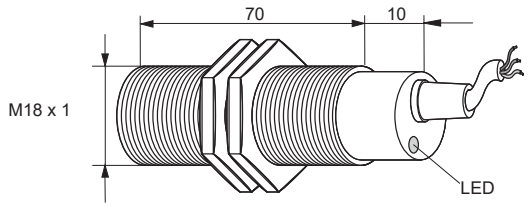
Article-number	Designation	Output function	Speed range rpm	Switching distance in mm	Termination	Dra-wing
08343301010	**SJ10-M30MB80-DPSI**	PNP —/—	120 - 3000	10	2m cable PVC 3 x 0,5mm²	B
08343301020	**SJ10-M30MB80-DPÖI**	PNP —/—	120 - 3000	10	2m cable PVC 3 x 0,5mm²	B
08310001089	**KJ5-M18MB80-DPI-X0130**	PNP —/—	1 - 50000	4	2m cable PVC 4 x 0,34mm²	A
08317634300	**KJ15-Q40KB-DPI**	PNP —/—	100 - 3000	15	Clamps up to 2,5mm²	D

Other cable lengths at request

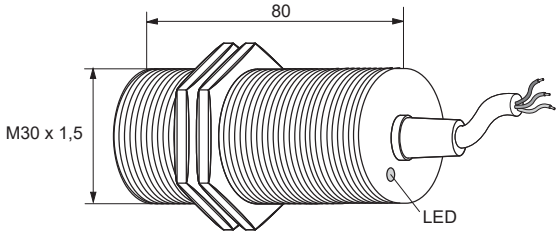
OVERSPEED MONITOR

Dimensions

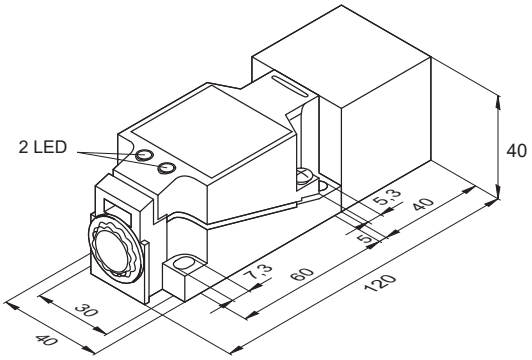
A)



B)



D)



all data in mm

METAL FACE SENSORS

General data

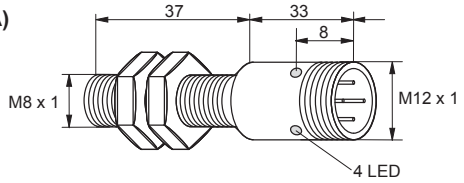
Due to their stainless steel housing metal face sensors are ideal for applications in aggressive media, oils or acids, and in alkaline fluids. The sensor field permeats the stainless steel sensor front and detects ferrous metals in standard switching distances.

Mounting	shielded
Operating voltage U_b	≤ 10 - 30V DC
Ripple voltage of U_b	≤ 10%
Voltage drop U_d	≤ 1,5V
Max. load current I_e	200mA
Off-state current I_o	≤ 10mA
Residual current I_r	≤ 10µA
Hysteresis H	≤ 15%
Repeatability R	≤ 1%
Operating temperature T_a	-25°C ... +70°C
Temperature drift	≤ 10%
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Status indicator	LED
Housing material	stainless steel

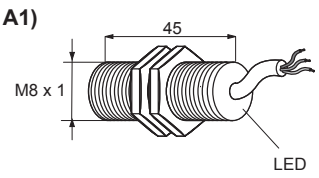
The selection chart for these sensors is shown on the following page.

Dimensions

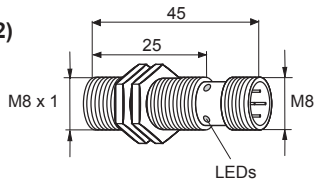
A)



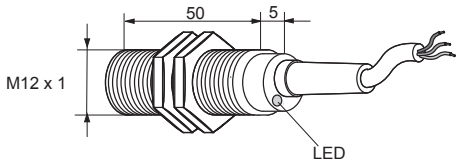
A1)



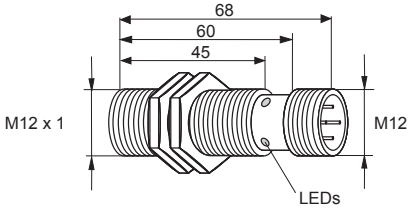
A2)



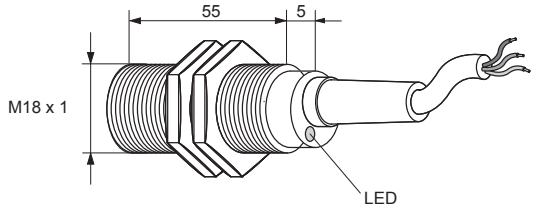
B)



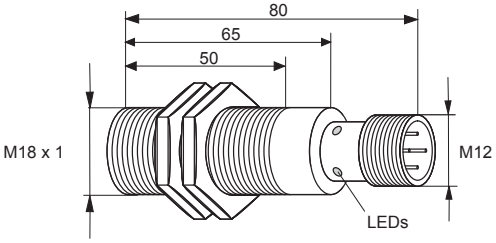
B1)



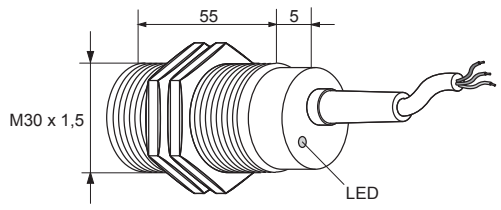
C)



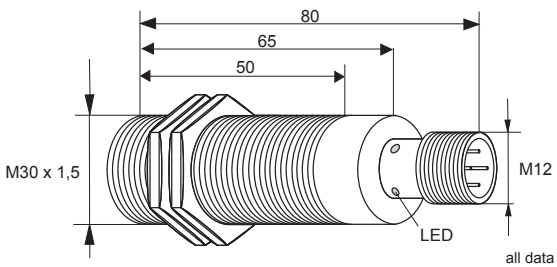
C1)



D)



D1)



all data in mm

METAL FACE SENSORS

Selection chart

Article number	Designation M8 switching distance 1mm	Output function	Max. switching frequency	Termination	Drawing (previous page)
08310001712	**SJD1-M8EB70-DPS-V2**	PNP	2000Hz	connector M12 - 4-pole	A
	Designation M8 switching distance 2mm				
08310001738	**SJD2-M8EB45-DPS**	PNP	2000Hz	2m cable 3x0,14	A1
08310001739	**SJD2-M8EB45-DPS-V1**	PNP	2000Hz	connector M8 3-pole	A1
	Designation M12 switching distance 2mm				
08313121210	**SJD2-M12EB50-DPS**	PNP	2000Hz	2m cable PVC 3 x 0,34mm²	B
08313121220	**SJD2-M12EB50-DPÖ**	PNP	2000Hz	2m cable PVC 3 x 0,34mm²	B
08313121230	**SJD2-M12EB50-DNS**	NPN	2000Hz	2m cable PVC 3 x 0,34mm²	B
08313121240	**SJD2-M12EB50-DNÖ**	NPN	2000Hz	2m cable PVC 3 x 0,34mm²	B
08313121211	**SJD2-M12EB68-DPS-V2**	PNP	2000Hz	connector M12 4-pole	B1
08313121221	**SJD2-M12EB68-DPÖ-V2**	PNP	2000Hz	connector M12 4-pole	B1
08313121231	**SJD2-M12EB68-DNS-V2**	NPN	2000Hz	connector M12 4-pole	B1
08313121241	**SJD2-M12EB68-DNÖ-V2**	NPN	2000Hz	connector M12 4-pole	B1
	Designation M18 switching distance 5mm				
08313181510	**SJD5-M18EB55-DPS**	PNP	1000Hz	2m cable PVC 3 x 0,34mm²	C
08313181520	**SJD5-M18EB55-DPÖ**	PNP	1000Hz	2m cable PVC 3 x 0,34mm²	C
08313181530	**SJD5-M18EB55-DNS**	NPN	1000Hz	2m cable PVC 3 x 0,34mm²	C
08313181540	**SJD5-M18EB55-DNÖ**	NPN	1000Hz	2m cable PVC 3 x 0,34mm²	C
08313181511	**SJD5-M18EB76-DPS-V2**	PNP	1000Hz	connector M12 4-pole	C1
08313181521	**SJD5-M18EB76-DPÖ-V2**	PNP	1000Hz	connector M12 4-pole	C1
08313181531	**SJD5-M18EB76-DNS-V2**	NPN	1000Hz	connector M12 4-pole	C1
08313181541	**SJD5-M18EB76-DNÖ-V2**	NPN	1000Hz	connector M12 4-pole	C1
	Designation M30 switching distance 10mm				
08313301110	**SJD10-M30EB55-DPS**	PNP	300Hz	2m cable PVC 3 x 0,5mm²	D
08313301120	**SJD10-M30EB55-DPÖ**	PNP	300Hz	2m cable PVC 3 x 0,5mm²	D
08313301130	**SJD10-M30EB55-DNS**	NPN	300Hz	2m cable PVC 3 x 0,5mm²	D
08313301140	**SJD10-M30EB55-DNÖ**	NPN	300Hz	2m cable PVC 3 x 0,5mm²	D
08313301111	**SJD10-M30EB80-DPS-V2**	PNP	300Hz	connector M12 4-pole	D1
08313301121	**SJD10-M30EB80-DPÖ-V2**	PNP	300Hz	connector M12 4-pole	D1
08313301131	**SJD10-M30EB80-DNS-V2**	NPN	300Hz	connector M12 4-pole	D1
08313301141	**SJD10-M30EB80-DNÖ-V2**	NPN	300Hz	connector M12 4-pole	D1

Other cable lengths as requested.

p·u·l·s·o·t·r·o·n·i·c
Pulsotronic GmbH & Co. KG
Neue Schichtstraße 14b
D-09366 Niederdorf
✆ +49 (0) 7296 / 930 - 200
🖷 +49 (0) 7296 / 930 - 280
info@pulsotronic.de
www.pulsotronic.de
subject to modifications!

TEMPERATURE-RESISTANT SENSORS

General data

Sensors for applications that require an enlarged operating temperature range from -40°C ... 100°C. Customized sensors for temperature ranges beyond 100°C as requested.

Operating voltage U_b	10-30V DC
Ripple voltage of U_b	≤ 10%
Voltage drop U_d	≤ 2,4V
Output function	PNP- or NPN N.O.
Max. load current I_e	200mA
Off-state current I_o	≤ 10µA
Residual current I_r	≤ 10mA
Hysteresis H	≤ 15%
Repeatability R	≤ 10%
Operating temperature T_a	-40°C ... +100°
Temperature drift	≤ 10%
Protection class	IP67
Status indicator	LED yellow
EMV-standard	according to EN 60947-5-2
Housing material	brass, nickel-plated
Front cap	PCP

The drawings for these sensors are shown on the following page.

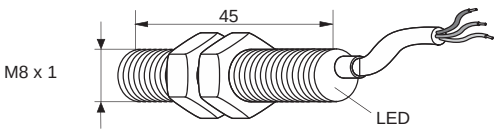
Selection chart

Article number	Designation	Mounting	Max. switching frequency	Switching distance in mm	Termination	Drawing (following page)
08317616010	**KJ1,5-M8MB45-DPS-T**	shielded	2000Hz	1,5	2m cable PVC 3 x 0,14	A
08317626010	**KJ2-M12MB40-DPS-T**	shielded	1000Hz	2	2m cable PUR 3 x 0,34	B
08317626065	**KJ2-M12MB60-DPS-V2-T**	shielded	1000Hz	2	connector M12 4-pole	B1
08317626110	**KJ4-M12MN40-DPS-T**	non shielded	1000Hz	4	2m cable PUR 3 x 0,34	C
08317626165	**KJ4-M12MN60-DPS-V2-T**	non shielded	1000Hz	4	connector M12 4-pole	C1
08317646010	**KJ5-M18MB40-DPS-T**	shielded	1000Hz	5	2m cable PUR 3 x 0,34	D
08317646065	**KJ5-M18MB60-DPS-V2-T**	shielded	1000Hz	5	connector M12 4-pole	D1
08317646110	**KJ8-M18MN40-DPS-T**	non shielded	500Hz	8	2m cable PUR 3 x 0,34	E
08317646165	**KJ8-M18MN60-DPS-V2-T**	non shielded	500Hz	8	connector M12 4-pole	E1
08317666010	**KJ10-M30MB40-DPS-T**	shielded	500Hz	10	2m cable PUR 3 x 0,34	F
08317666065	**KJ10-M30MB60-DPS-V2-T**	shielded	500Hz	10	connector M12 4-pole	F1
08317666110	**KJ15-M30MN40-DPS-T**	non shielded	300Hz	15	2m cable PUR 3 x 0,34	G
08317666165	**KJ15-M30MN60-DPS-V2-T**	non shielded	300Hz	15	connector M12 4-pole	G1

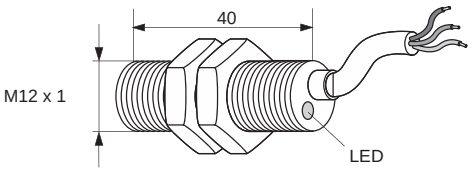
HIGHTEMPERATURE-RESISTANT SENSORS

Dimensions

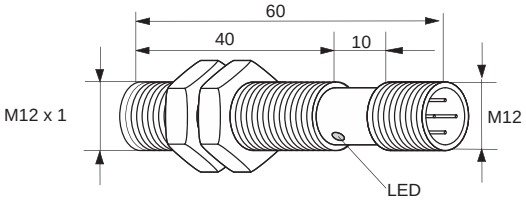
A)



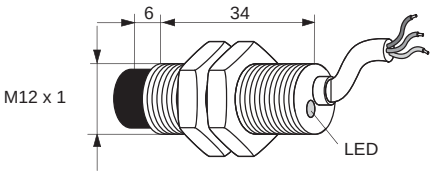
B)



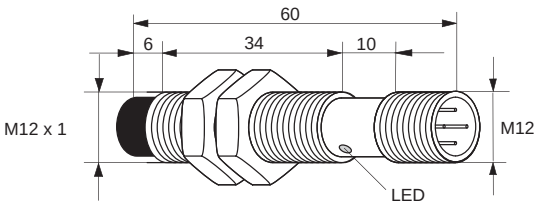
B1)



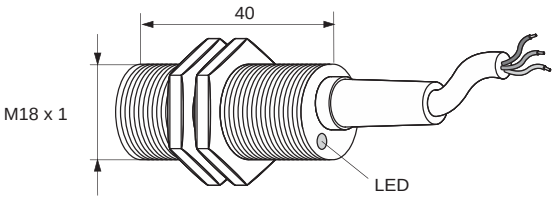
C)



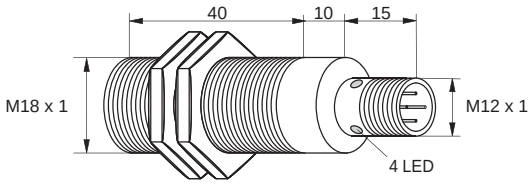
C1)



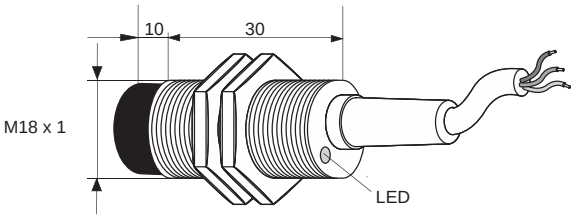
D)



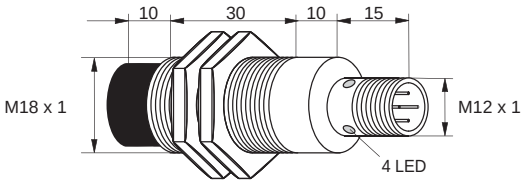
D1)



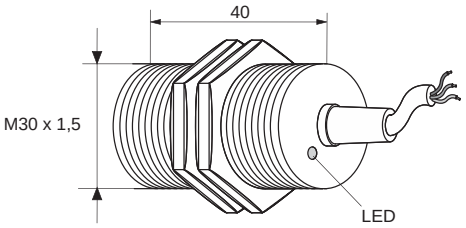
E)



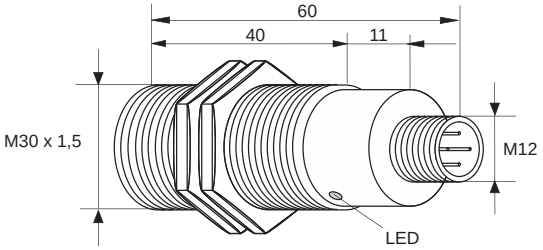
E1)



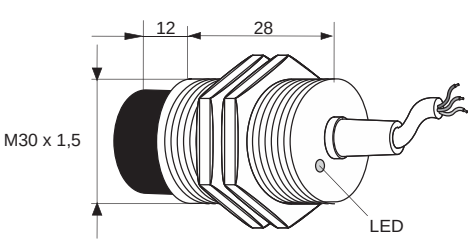
F)



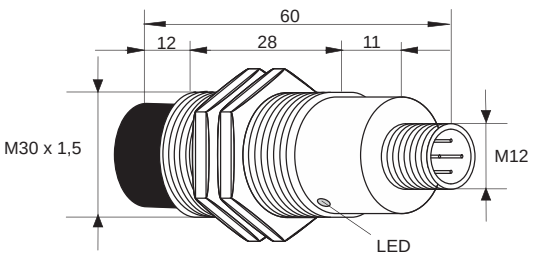
F1)



G)



G1)



all data in mm

WELD FIELD IMMUNE SENSORS

General data

By reason of the special protection of the sensor electronics weld field immune sensors are used on or close to welding machines. The housing is teflon-coated and protects against welding beats and spark erosion.

Operating Voltage U_b	10-30V DC
Ripple voltage of U_b	≤ 10%
Voltage drop U_d	≤ 2,4V
Output function	PNP N.O.
Max. load current I_e	200mA
Off-state current I_o	≤ 10mA
Residual current I_r	≤ 10µA
Max. switching frequency	15Hz
Hysteresis H	≤ 15%
Repeatability R	≤ 10%
Operating temperature T_a	-25°C ... +75°C
Temperature drift	≤ 10%
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Status indicator	LED yellow
Housing material	shielded: brass, teflon-coated non shielded: brass, nickel-plated
Front cap	shielded: teflon non shielded: PCP

The drawings of these sensors are shown on the following page.

Selection chart

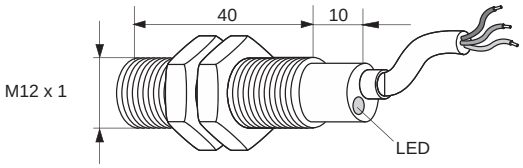
Article number	Designation	Mounting	Switching distance in mm	Termination	Drawing (following page)
08317625840	**KJ2-M12MB50-DPS-SF**	shielded	2	2m cable PVC 3 x 0,34mm²	A
08317625845	**KJ2-M12MB70-DPS-V2-SF**	shielded	2	connector M12 4-pole	A1
08317625900	**KJ4-M12MN50-DPS-SF**	non shielded	4	2m cable PVC 3 x 0,34mm²	B
08317625965	**KJ4-M12MN70-DPS-V2-SF**	non shielded	4	connector M12 4-pole	B1
08317645840	**KJ5-M18MB60-DPS-SF**	shielded	5	2m cable PVC 3 x 0,34mm²	C
08317645845	**KJ5-M18MB80-DPS-V2-SF**	shielded	5	connector M12 4-pole	C1
08317645900	**KJ8-M18MN60-DPS-SF**	non shielded	8	2m cable PVC3 x 0,34mm²	D
08317645945	**KJ8-M18MN80-DPS-V2-SF**	non shielded	8	connector M12 4-pole	D1
08317665840	**KJ10-M30MB60-DPS-SF**	shielded	10	2m cable PVC 3 x 0,34mm²	E
08317665845	**KJ10-M30MB80-DPS-V2-SF**	shielded	10	connector M12 4-pole	E1
08317665940	**KJ15-M30MN60-DPS-SF**	non shielded	15	2m cable PVC 3 x 0,34mm²	F
08317665965	**KJ15-M30MN80-DPS-V2-SF**	non shielded	15	connector M12 4-pole	F1

Other cable lengths as requested.

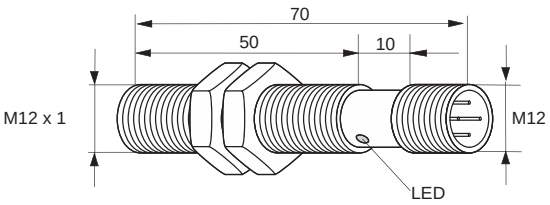
WELD FIELD IMMUNE SENSORS

Dimensions

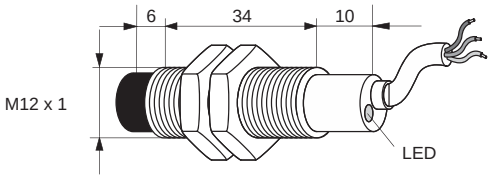
A)



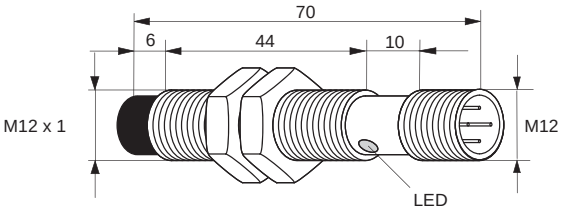
A1)



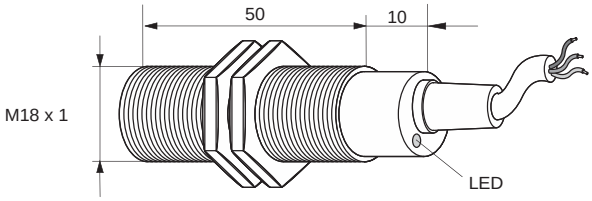
B)



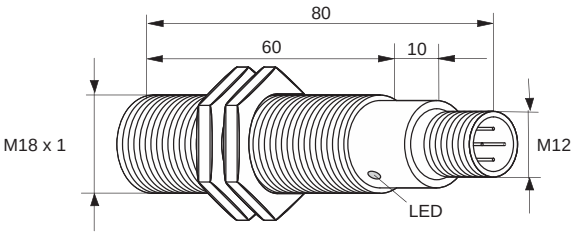
B1)



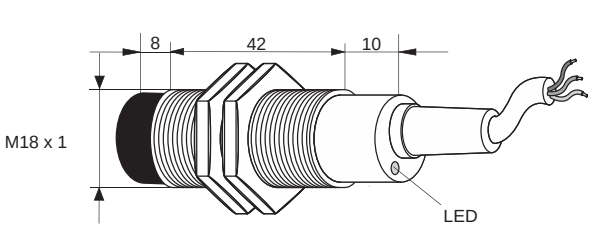
C)



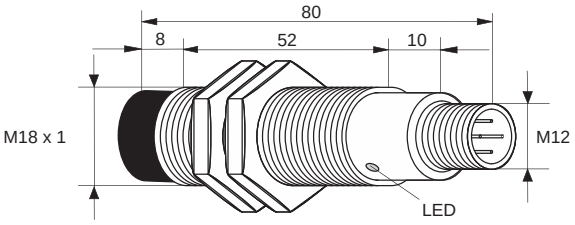
C1)



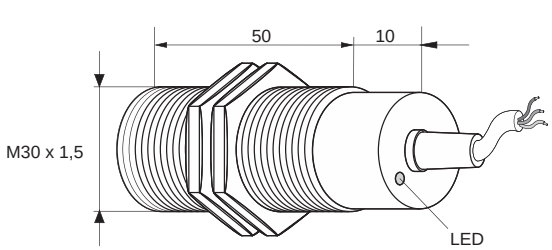
D)



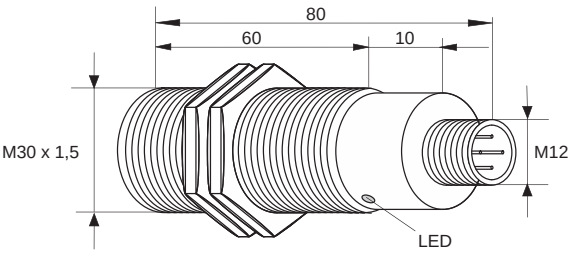
D1)



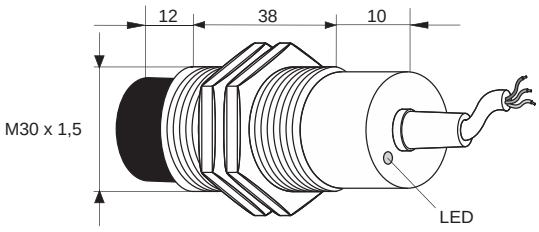
E)



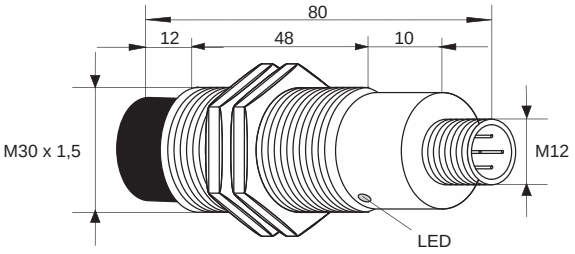
E1)



F)



F1)



all data in mm

QUAD SENSOR

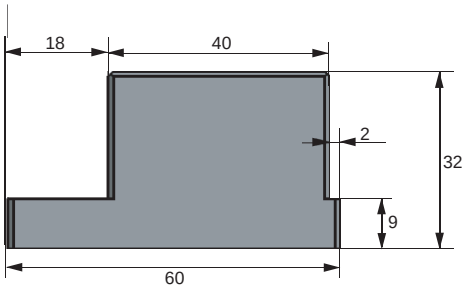
Technical data

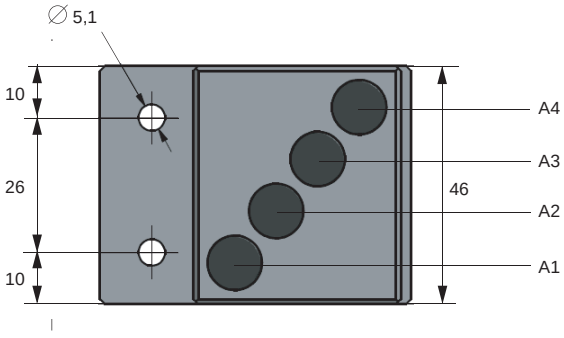
The quad sensor is equiped with four active sensor faces. By coordinated heterodyne frequencies the sensor head detects four targets situated side by side without any interference.

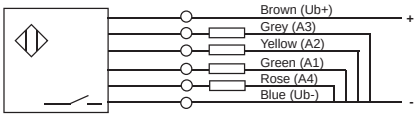
Article number	Designation
08310001877	**KJ3-Q40AB-DPS**

Mounting	shielded
Operating voltage U_b	10-30V DC
Ripple voltage of U_b	≤ 10%
Voltage drop U_d	≤ 2,4V per output
Output function	4 x PNP N.O.
Max. load current I_e	≤ 200mA per output
Off-state current I_o	≤ 10mA per output
Residual current I_r	≤ 10µA per output
Max. switching frequency	1500Hz
Switching distance	3mm
Hysteresis H	≤ 15%
Repeatability R	≤ 10%
Operating temperature T_a	-25°C ... +70°C
Temperature drift	≤ 10%
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Housing material	aluminium, eloxed
Front cap	PA 6.6
Termination	2m cable PVC 6 x 0,14mm² screened (other cable lengths as requested)

Dimensions, circuit diagram







all data in mm

HALL EFFECT SENSORS

Technical data

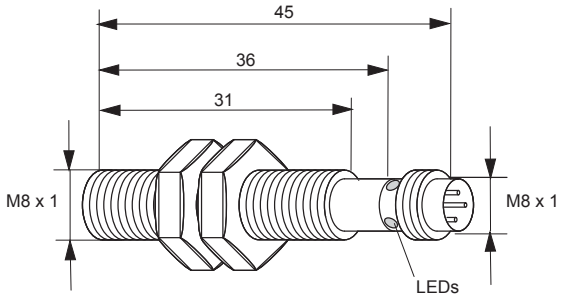
Sensors with hall elements detect magnetic targets for monitoring rotational speed or directions. Hall effect sensors from Pulsotronic detect permanent magnets as well as polarised tapes in extremely fast applications.

Article number	Designation	Drawing
08330000065	**KH1-M8EB45-DPÖ-V1**	A
08330000070	**KHD1-M12MB60-DPS-V2**	B
08330000188	**KH-M8EB30-DNS**	C

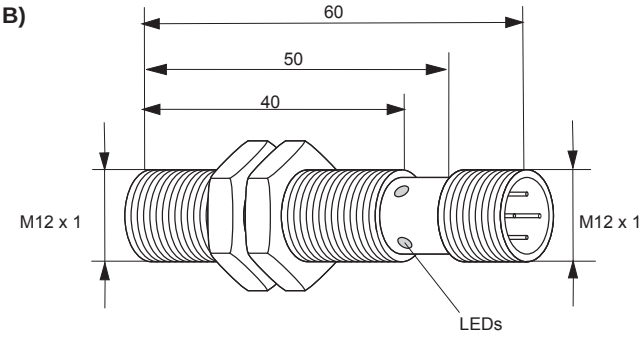
	08330000065	08330000070	08330000188
Mounting	shielded	shielded	shielded
Operating voltage U_b	10-30V DC	10 - 35V DC	3,8 - 30V DC
Voltage drop U_d	≤ 1,0V	≤ 2,4V	≤ 0,4V
Max. load current I_e	200mA	200mA	20mA
Off-state current I_o	≤ 20mA	≤ 20mA	≤ 10mA
Switching distance (dynamic)	1,0mm +/-20% at 340 - 450mT	1,0mm at 25mT	depend on switching magnet
Output function	2 x PNP N.C. (south-/northpole)	PNP N.O.	NPN N.O.
Check low voltage switch gear andcontrol	according to EN 60947-5-2	according to EN 60947-5-2	according to EN 60947-5-2
Operating temperature T_a	-40°C ... +80°C	-25°C ... +70°C	-40°C ... +90°C
Temperature drift	≤ 20%	≤ 20%	≤ 20%
Protection class	IP67	IP67	IP67
Status indicator	yellow-red LED	yellow all around LED	any LED
Housing material	stainless steel 1.4305	M12x1x58, brass, nickel-plated	stainless steel 1.4305
Termination	connector M8 4-pole	connector M12 4-pole	2m cable PUR

Dimensions

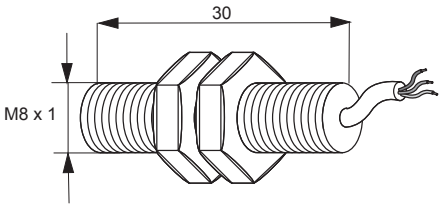
A)



B)



C)



all data in mm

PICK-UP-SENSORS

General data

Special sensor group for combination with tool safety device or control unit. High-sensitive pick-up inductors record feeds on punching tools or control throw-offs of punchings.

Mounting	shielded
Max. switching frequency	5000Hz
Repeatability R	≤ 0,01mm
Operating temperature T_a	-10°C ... +70°C
Protection class	IP67
Housing material	brass, nickel-plated
Front cap	PA 6.6
Requirement control unit	yes

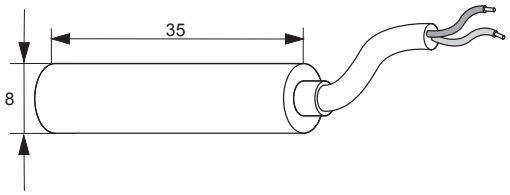
Selection chart

Article number	Designation	Switching distance	Termination	Hysteresis H	Drawing
08317120000	**KJ4-G8MB35**	up to 4mm	2m coaxial cable	at S_n = 2,0 < 0,04mm	A
08317120100	**KJ4-G8MB35-VK**	up to 4mm	2m coaxial cable + connector	at S_n = 2,0 < 0,04mm	A
08317061000	**KJ3-G10MB12**	up to 3mm	2m coaxial cable	at S_n = 1,5 < 0,05mm	B
08317061100	**KJ3-G10MB12-VK**	up to 3mm	2m coaxial cable + connector	at S_n = 1,5 < 0,05mm	B
08317130000	**KJ4-M10MB35**	up to 4mm	2m coaxial cable	at S_n = 2,0 < 0,04mm	C
08317130100	**KJ4-M10MB35-VK**	up to 4mm	2m coaxial cable + connector	at S_n = 2,0 < 0,04mm	C

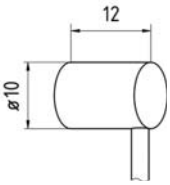
Other cable lengths as requested. Adequate control units you will find in our accessories catalogue.

Dimensions

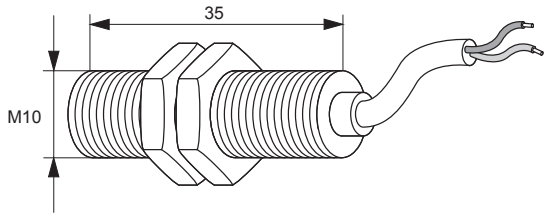
A)



B)



C)



all data in mm

NOTES

PRODUCT OVERVIEW

Product	Designation	Article number	Page
Inclination sensors	KN5-Q40KN-ANU-V2	08330000066	4
Inclination sensors	KN15-Q40KN-ANU-V2	08330000107	4
Inclination sensors	KN30-Q40KN-ANU-V2	08330000500	4
Inclination sensors	KN45-Q40KN-ANU-V2	08330000075	4
Inclination sensors	KN60-Q40KN-ANU-V2	08330000501	4
Inclination sensors	KN75-Q40KN-ANU-V2	08330000502	4
Inclination sensors	KN90-Q40KN-ANU-V2	08330000095	4
Inclination sensors	KN5-Q40KN-ANI-V2	08330000087	4
Inclination sensors	KN15-Q40KN-ANI-V2	08330000503	4
Inclination sensors	KN30-Q40KN-ANI-V2	08330000504	4
Inclination sensors	KN45-Q40KN-ANI-V2	08330000067	4
Inclination sensors	KN60-Q40KN-ANI-V2	08330000080	4
Inclination sensors	KN75-Q40KN-ANI-V2	08330000505	4
Inclination sensors	KN90-Q40KN-ANI-V2	08330000076	4
Acceleration sensors	KB...	0833...	5
Angle sensors	KW360-D42KN7-ANU5	08330001132	6
Angle sensors	KW360-D42KN7-ANU	08330001139	6
Angle sensors	KW360-D42KN7-ANI	08330001140	6
Angle sensors	KW360-D42KN7-ANI-X0392	08330001135	6
Angle sensors	KW360-D42KN15-CANO	08330001141	6
Angle sensors	KW360-Q25KN10-ANU5	08330001133	6
Angle sensors	KW360-Q25KN10-ANI	08330001136	6
Tube sensors	KJ16-Q16KN-DPS-V1	08310000903	7
Tube sensors	KJ10-Q16KN-DPS-V1-X1028	08310001526	7
Tube sensors	KJ10-Q16KN-DPS-V1	08310001105	7
Tube sensors	KJ16-Q16KN-DPS-X0337	08310001891	7
Inductive pressure-resistant	KJD2-M12EB50-DPS-V2/500/14,9	08310002400	8/9
Inductive pressure-resistant	KJD2-M12EB50-DPÖ-V2/500/14,9	08310002401	8/9
Inductive pressure-resistant	KJD2-M12EB50-DPS-V2/500/17,9	08310002402	8/9
Inductive pressure-resistant	KJD2-M12EB50-DPÖ-V2/500/17,9	08310002403	8/9
Inductive pressure-resistant	KJD2-M12EB56-DPS-V2/500/14,9	08310001749	8/9
Inductive pressure-resistant	KJD2-M12EB56-DPÖ-V2/500/14,9	08310002404	8/9
Inductive pressure-resistant	KJD2-M12EB56-DPS-V2/500/17,9	08310001746	8/9
Inductive pressure-resistant	KJD2-M12EB56-DPÖ-V2/500/17,9	08310002405	8/9
Inductive pressure-resistant	KJD2-M12EB69-DPS-V2/500/14,9	08310002406	8/9
Inductive pressure-resistant	KJD2-M12EB69-DPÖ-V2/500/14,9	08310002407	8/9
Inductive pressure-resistant	KJD2-M12EB69-DPS-V2/500/17,9	08310002408	8/9
Inductive pressure-resistant	KJD2-M12EB69-DPÖ-V2/500/17,9	08310002409	8/9
Inductive pressure-resistant	KJD2-M12EB78-DPS-V2/500/14,9	08310002410	8/9
Inductive pressure-resistant	KJD2-M12EB78-DPÖ-V2/500/14,9	08310002411	8/9
Inductive pressure-resistant	KJD2-M12EB78-DPS-V2/500/17,9	08310001781	8/9
Inductive pressure-resistant	KJD2-M12EB78-DPÖ-V2/500/17,9	08310002412	8/9
High temperature-resistant sensors	KJ2-M8EB60-DPS-HT140-X0240	08310001715	10/11
High temperature-resistant sensors	KJ2-M8EB60-DPS-HT140-X0202	08310000959	10/11
High temperature-resistant sensors	KJ3-M12EB60-DPS-HT150-X0240	08310002500	10/11
High temperature-resistant sensors	KJ3-M12EB60-DPS-HT150-X0202	08310000812	10/11
High temperature-resistant sensors	KJ4-M12EN60-DPS-HT150-X0240	08310002501	10/11
High temperature-resistant sensors	KJ4-M12EN60-DPS-HT150-X0202	08310002502	10/11
High temperature-resistant sensors	KJ5-M18EB70-DPS-HT180-X0240	08310002503	10/11
High temperature-resistant sensors	KJ5-M18EB70-DPS-HT180-X0202	08310001716	10/11
High temperature-resistant sensors	KJ8-M18EN80-DPS-HT180-X0240	08310002504	10/11
High temperature-resistant sensors	KJ8-M18EN80-DPS-HT180-X0202	08310001737	10/11
High temperature-resistant sensors	KJ10-M30EB70-DPS-HT180-X0240	08310001728	10/11
High temperature-resistant sensors	KJ10-M30EB70-DPS-HT180-X0202	08310002505	10/11
High temperature-resistant sensors	KJ15-M30EN80-DPS-HT180-X0240	08310002506	10/11
High temperature-resistant sensors	KJ15-M30EN80-DPS-HT180-X0202	08310000920	10/11

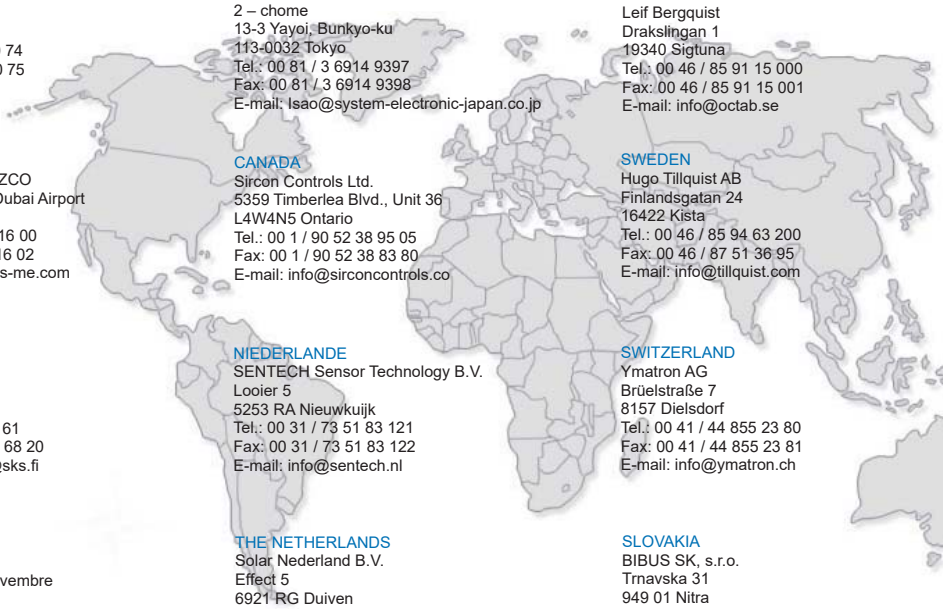
Product overview

Product	Designation	Article number	Page
Acoustic sensor	KA1-Q25KB-DPÖ	08340001010	12
Optical ring sensors	KOER-D12KB-DPS-V2-IR	08363000500	13
Optical ring sensors	KOER-D30KB-DPS-V2-IR	08363000600	13
Overspeed Monitor	SJ10-M30MB80-DPSI	08343301010	14/15
Overspeed Monitor	SJ10-M30MB80-DPÖI	08343301020	14/15
Overspeed Monitor	KJ5-M18MB80-DPI-X0130	08310001089	14/15
Overspeed Monitor	KJ15-Q40KB-DPI	08317634300	14/15
Metal Face Sensors	SJD1-M8EB70-DPS-V2	08310001712	16/17
Metal Face Sensors	SJD2-M8EB45-DPS	08310001738	16/17
Metal Face Sensors	SJD2-M8EB45-DPS-V1	08310001739	16/17
Metal Face Sensors	SJD2-M12EB50-DPS	08313121210	16/17
Metal Face Sensors	SJD2-M12EB50-DPÖ	03813121220	16/17
Metal Face Sensors	SJD2-M12EB50-DNS	08313121230	16/17
Metal Face Sensors	SJD2-M12EB50-DNÖ	08313121240	16/17
Metal Face Sensors	SJD2-M12EB68-DPS-V2	08313121211	16/17
Metal Face Sensors	SJD2-M12EB68-DPÖ-V2	08313121221	16/17
Metal Face Sensors	SJD2-M12EB68-DNS-V2	08313121231	16/17
Metal Face Sensors	SJD2-M12EB68-DNÖ-V2	08313121241	16/17
Metal Face Sensors	SJD5-M18EB55-DPS	08313181510	16/17
Metal Face Sensors	SJD5-M18EB55-DPÖ	08313181520	16/17
Metal Face Sensors	SJD5-M18EB55-DNS	08313181530	16/17
Metal Face Sensors	SJD5-M18EB55-DNÖ	08313181540	16/17
Metal Face Sensors	SJD5-M18EB80-DPS-V2	08313181511	16/17
Metal Face Sensors	SJD5-M18EB80-DPÖ-V2	08313181521	16/17
Metal Face Sensors	SJD5-M18EB80-DNS-V2	08313181531	16/17
Metal Face Sensors	SJD5-M18EB80-DNÖ-V2	08313181541	16/17
Metal Face Sensors	SJD10-M30EB55-DPS	08313301110	16/17
Metal Face Sensors	SJD10-M30EB55-DPÖ	08313301120	16/17
Metal Face Sensors	SJD10-M30EB55-DNS	08313301130	16/17
Metal Face Sensors	SJD10-M30EB55-DNÖ	08313301140	16/17
Metal Face Sensors	SJD10-M30EB55-DPS-V2	08313301111	16/17
Metal Face Sensors	SJD10-M30EB80-DPÖ-V2	08313301121	16/17
Metal Face Sensors	SJD10-M30EB80-DNS-V2	08313301131	16/17
Metal Face Sensors	SJD10-M30EB80-DNÖ-V2	08313301141	16/17
Temperature-resistant sensors	KJ1,5-M8MB45-DPS-T	08317616010	18/19
Temperature-resistant sensors	KJ2-M12MB40-DPS-T	08317626010	18/19
Temperature-resistant sensors	KJ2-M12MB65-DPS-V2-T	08317626065	18/19
Temperature-resistant sensors	KJ4-M12MN40-DPS-T	08317626110	18/19
Temperature-resistant sensors	KJ4-M12MN60-DPS-V2-T	08316626165	18/19
Temperature-resistant sensors	KJ5-M18MB40-DPS-T	08317646010	18/19
Temperature-resistant sensors	KJ5-M18MB60-DPS-V2-T	08317646065	18/19
Temperature-resistant sensors	KJ8-M18MN40-DPS-T	08317646110	18/19
Temperature-resistant sensors	KJ8-M18MN65-DPS-V2-T	08317646165	18/19
Temperature-resistant sensors	KJ10-M30MB40-DPS-T	08317666010	18/19
Temperature-resistant sensors	KJ10-M30MB60-DPS-V2-T	08317666065	18/19
Temperature-resistant sensors	KJ15-M30MN40-DPS-T	08317666110	18/19
Temperature-resistant sensors	KJ15-M30MN60-DPS-V2-T	08317666165	18/19

Product overview

Sales partners

Worldwide



AUSTRALIA
PCA Plant Control & Automation Pty LTD
Unit 3 No.3 Hunter Street
2077 Hornsby NSW
Tel: 00 61 / 29 48 23 733
Fax: 00 61 / 29 47 66 822
E-mail: sales@pca-aus.com.au

BELGIUM
Bintz Technics N.V.
Business Park
Brixtonlaan 23
1930 Zaventem
Tel.: 00 32 / 27 20 49 16
Fax: 00 32 / 27 20 37 50
E-mail: beyens@bintz-technics.be

BRAZIL
IFS REPRESENTACOES
Importadora & Exportadora Tuchler Ltda.
Stelio Machado Loureiro 74
Jardim Ipanema District
09121-670 Santo Andre, Sao Paulo
Tel.: 00 55 / 11 2914 1112
Fax: 00 55 / 11 2914 1112
E-mail: contato@fsrepresentacoes.com.br

DENMARK
ICS A/S
Holkebjergvej 79
5260 Odense SV
Tel.: 00 45 / 66 17 10 74
Fax: 00 45 / 66 17 10 75
E-mail: ics@ics.as
Internet: www.ics.as

DUBAI
Focus Middle East FZCO
No. 322, Bldg 5EA, Dubai Airport
AE Dubai
Tel.: 00 971 / 46 09 16 00
Fax: 00 971 / 46 09 16 02
E-mail: yousef@focus-me.com

FINLAND
SKS-Automaatio Oy
Martinkyläntie 50
01721 Vantaa
Tel.: 00 358 / 20 764 61
Fax: 00 358 / 20 764 68 20
E-mail: automaatio@sks.fi

FRANCE
Verco SA
12, Square du 11 Novembre
57100 Thionville
Tel.: 00 33 / 382 58 33 93
Fax: 00 33 / 382 58 94 67
E-mail: verco@verco.fr

GREECE
Panayiotis Vassiliou S.A.
86, 3rd Septemvriou Str.
10434 Athen
Tel.: 00 30 / 210 8222 344
Fax: 00 30 / 210 8222 744
E-mail: info@vassiliou-sa.gr

GREAT BRITAIN
Longvale Ltd.
Lancaster Park Needwood
Burton-upon-Trent
DE13 9PD Staffordshire
Tel.: 00 44 / 1283 575-811
Fax.: 00 44 / 1283 575-865
E-mail: sales@longvale.co.uk

INDIA
SAN INSTRUMENTS
104, Alpine Indl. Estate,
Military Road, Andheri (East)
Mumbai 400 059
Tel.: 00 91 / 22 66 94 92 37
Fax: 00 91 / 22 66 96 31 65
E-mail: sales@saninstruments.com

IRELAND
DWN Instrumentation Ltd.
23 Western Parkway Business Centre
Ballymount Road
12 Dublin
Tel.: 00 353 / 14 50 59 96
Fax: 00 353 / 14 50 56 95
E-mail: dublin@dwn.ie

ISRAEL
E.I.D. ELECTRONICS LTD.
30 Hasvim st.
4959388 Petach Tikva
Tel.: 00 97 / 23 53 43 380
Fax: 00 97 / 23 53 43 385
E-mail: sales@eid.co.il

ITALY
Tritecnica S.R.L.
Viale Lazio 26
20135 Milano
Tel.: 00 39 / 02 54 19 452
Fax: 00 39 / 02 55 18 12 97
E-mail: info@tritecnica.it

JAPAN
SYSTEM ELECTRONIC JAPAN CO. LTD.
2 – chome
13-3 Yayoi, Bunkyo-ku
113-0032 Tokyo
Tel.: 00 81 / 3 6914 9397
Fax: 00 81 / 3 6914 9398
E-mail: Isao@system-electronic-japan.co.jp

CANADA
Sircon Controls Ltd.
5359 Timberlea Blvd., Unit 36
L4W4N5 Ontario
Tel.: 00 1 / 90 52 38 95 05
Fax: 00 1 / 90 52 38 83 80
E-mail: info@sirconcontrols.co

NIEDERLANDE
SENTECH Sensor Technology B.V.
Looier 5
5253 RA Nieuwkuijk
Tel.: 00 31 / 73 51 83 121
Fax: 00 31 / 73 51 83 122
E-mail: info@sentech.nl

THE NETHERLANDS
Solar Nederland B.V.
Effect 5
6921 RG Duiven
Tel.: 00 31 / 26 36 52 91
Fax: 00 31 / 26 36 52 346
E-mail: algemeen@beng.nl

AUSTRIA
Geva Elektronik Handelsgesellschaft m.b.H.
Wiener Straße 89
2500 Baden
Tel.: 00 43 / 22 52 85 55 20
Fax: 00 43 / 22 52 48 860
E-mail: office@geva.at

AUSTRIA
Sensorwell Vertriebs GesmbH
Kalsdorfer Str. 26 a
8073 Feldkirchen
Tel.: 00 43 / 31 64 03 301
Fax: 00 43 / 31 64 03 30 110
E-mail: office@sensorwell.at

POLAND
P.W. Romex Siecla Sp. J.
Ul. Wzlotowa 5
60411 Poznan
Tel.: 00 48 / 61 84 17 824
Fax: 00 48 / 61 84 36 343
E-mail: biuro@pwromex.com.pl

PORTUGAL
Victor Santos, LDA
Rua Clotilde
Ferreira da Cruz, 57
4470-163 Maia
Tel.: 00 351 / 229 486 105
Fax: 00 351 / 229 488 793
E-mail: victor@victorsantos.pt

ROMANIA
BIBUS SES SRL
134/1 Calea Lugojului
307200 Ghiroda, Timis
Tel.: 00 40 / 256 200 500
Fax: 00 40 / 256 220 666
E-mail: office@bibus.ro

ROMANIA
Isrom Impex Srl
str. T. Vladimirescu 56/b
410203 Oradea
Tel.: 00 40 / 25 94 57 771
Fax: 00 40 / 25 94 57 772
E-mail: industry1@isrom.ro

SWEDEN
Octab Industrieelektronik AB
Leif Bergquist
Drakslingan 1
19340 Sigtuna
Tel.: 00 46 / 85 91 15 000
Fax: 00 46 / 85 91 15 001
E-mail: info@octab.se

SWEDEN
Hugo Tillquist AB
Finlandsgatan 24
16422 Kista
Tel.: 00 46 / 85 94 63 200
Fax: 00 46 / 87 51 36 95
E-mail: info@tillquist.com

SWITZERLAND
Ymatron AG
Brüelstraße 7
8157 Dielsdorf
Tel.: 00 41 / 44 855 23 80
Fax: 00 41 / 44 855 23 81
E-mail: info@ymatron.ch

SLOVAKIA
BIBUS SK, s.r.o.
Trnavska 31
949 01 Nitra
Tel.: 00421 / 37 77 77 921
Fax: 00421 / 37 77 77 929
E-mail: gyenes@bibus.sk

SLOVENIA
INOTEH D.O.O.
K zeleznici 7
SI-2345 Bistrica ob Dravi
Tel.: 00 386 / 2 673 01 36
Fax: 00 386 / 2 665 20 81
E-mail: info@inoteh.si

AUSTRIA
Sensorwell Vertriebs GesmbH
Kalsdorfer Str. 26 a
8073 Feldkirchen
Tel.: 00 43 / 31 64 03 301
Fax: 00 43 / 31 64 03 30 110
E-mail: office@sensorwell.at

SPAIN
AUTOMATICA ELECTRONICA Y CONTROL S.L.
Plaça Vella, 13, Principal 3a
08221 Terrassa | BCN
Tel.: 00 34 / 93 72 07 066
Fax: 00 34 / 93 72 09 99 99
E-mail: info@automatica-elec.es

SOUTH AFRICA
Countapulse Controls Pty. Ltd.
P.O. Box 40393
Cleveland, 2022
Tel.: 00 27 / 11 61 57 556
Fax: 00 27 / 11 61 57 513
E-mail: clive@countapulse.co.za

SOUTH KOREA
Ace Electric
Ga-6ho,
Jogno22gil 5, Jongno-gu
110-430 Seoul, Republic of Korea
Tel: 00 82 / 2 2263 1496
Fax: 00 82 / 2 2265 4445

TAIWAN (ASIA)
DWO & TOM Enterprise Co. Ltd.
Fl. 3, No. 168
Nanking East Road Sec. 5
Taipei, Taiwan, R.O.C.
Tel.: 00 88 6 / 22 76 82 323
Fax: 00 88 6 / 22 76 83 363
E-mail: dwotom@so-net.net.tw

CZECH REPUBLIC
REM-TECHNIK S.R.O.
Kliny 35
61500 Brno
Tel.: 00 42 / 05 48 140 000
Fax: 00 42 / 05 48 140 005
E-mail: office@rem-technik.cz

CZECH REPUBLIC
BIBUS S.R.O.
Videnská 125
63927 Brno
Tel.: 00 42 / 05 47 12 53 24
Fax: 00 42 / 05 47 12 53 10
E-mail: duchon@bibus.cz

TURKEY
Simge Elektrik
Okcumusa Cad. Menevse
Is Hany No. 54/100
Karaköy-Istanbul
Tel.: 00 90 / 21 22 53 05 99
Fax: 00 90 / 21 22 53 39 63
E-mail: HVTS@turk.net

HUNGARY
VF Automation
Trade and Engineering Ltd.
Gyomroi ut 140
1108 Budapest
Tel.: 00 36 / 14 33 25 43
Fax: 00 36 / 14 33 25 44
E-mail: vfaut@vfautomatika.hu

USA
Altech Corp.
35 Royal Road
08822 Flemington NJ-6000
Tel.: 00 1 / 90 88 06 94 00
Fax: 00 1 / 90 88 06 94 90
E-mail: info@altechcorp.com

p·u·l·s·o·t·r·o·n·i·c

Pulsotronic GmbH & Co. KG
Neue Schichtstraße 14 b
D-09366 Niederdorf
Phone: +49 (0) 37296 930 200
Fax.: +49 (0) 37296 930 280
Email: info@pulsotronic.de
www.pulsotronic.de

You are looking for your local contact?
Please use www.pulsotronic.de !

Pulsotronic GmbH & Co. KG
Neue Schichtstraße 14 b
D-09366 Niederdorf
Phone: +49 (0) 37296 / 930-200
Fax: +49 (0) 37296 / 930-280
sales@pulsotronic.de
www.pulsotronic.de