

# PFT-SRB025SG1SSAAMSSZ



**PRESSURE TRANSMITTER** 

PRESSURE TRANSMITTER



### Ordering information

Туре	Part no.
PFT-SRB025SG1SSAAMSSZ	6038595

Other models and accessories -> www.sick.com/PFT





## Detailed technical data

#### Features

MediumLiquid, gaseousPressure typeGauge pressurePressure unitbarMeasuring range0 bar 25 barProcess temperature-30 °C +100 °CMaximum ohmic load Ra(m A 20 mA, 2-wire (Ra, s (L* - 10 V) / 0.02 A [Ohm]) 0 V 5 V, 3-wire (Ra, > 5 kOhm) 0 V 5 V, 3-wire (Ra, > 5 kOhm)Dutput signal4 mA 20 mA, 2-wire SpeciatyMechanics/electronicsStandard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barProcess connection6 ¼ A according to DIN 3852-EWetted partsStandard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic ol (Not available for version with standard membrane for pressure ranges > 25 barPressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V D C 30 V D CElectrical safetySolve portection: 36 V DC Short-circuit protection: 20, towards M Reverse polarity protection: 20, towards M Reverse polarity protection: 20, towards M Reverse polarity protection: 20 A (Rog/EU EUC directive: 2004/108/EC, EN (		
Pressure unitberMeasuring rangeO bar 25 barProcess temperature-30 ° C +100 ° CMaximum ohmic load Ra4 mA 20 mA, 2-wire (Ra ≤ (l* - 10 V) / 0.02 A [Ohm]) O V 5 V, 3-wire (Ra > 5 kOhm) O V 10 V, 3-wire (Ra > 10 kOhm)Output signal4 mA 20 mA, 2-wire (Ba ≤ (l* - 10 V) / 0.02 A [Ohm]) O V 10 V, 3-wire (Ra > 10 kOhm)Output signal4 mA 20 mA, 2-wireSpecialtyWithoutMechanics/electronicsProcess connection6 4/A according to DIN 3852-E Standard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 barInternal transmission fluidStainless steel 1.4571Pressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V D C 30 V D CElectrical safetySou't cut up rotection: 36 V D C Short-circuit protection: 14 to M Protection class: IIIDielectric strengthEou of a fault)Electrical safetySou't C. Class 02 power supply (low voltage and low current max, 100 VA even in the evence polarity protection: L* to M Protection class: IIIDielectric strengthEvence quipment directive: 2004/108/EC, EN 61326-2-3	Medium	Liquid, gaseous
Measuring range0 bar 25 barProcess temperature-30 °C +100 °CMaximum ohmic load Ra4 mA 20 mA, 2 wire (Ra ≤ (L* - 10 V) / 0.02 A [0hm]) 0 V 5 V. 3 wire (Ra > 5 k0hm) 0 V 10 V, 3 wire (Ra > 10 k0hm)Output signal4 mA 20 mA, 2 wireSpecialtyWithoutMechanics/electronicsG VA according to DIN 3852.EProcess connectionG VA according to DIN 3852.EWetted partsStandard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 barPressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V DC 30 V DCElectrical safetyOvervoltage protection: 36 V DC Short-cicuit protection: 34 Sureads M Reverse polarity protection: 14 to M Protection class: IIIDielectric strengthSoov VD, DE C Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)GE-conformityPressure equipment directive: 2014/68/EU EMC directive: 2014/108/EC, EN 61326-23	Pressure type	Gauge pressure
Process temperature-30 °C +100 °CMaximum ohmic load Ra4 mA 20 mA, 2-wire (Ra ≤ (L* - 10 V) / 0.02 A [Ohm]) 0 V 5 V, 3-wire (Ra > 5 KOhm) 0 V 10 V, 3-wire (Ra > 10 KOhm)Output signal4 mA 20 mA, 2-wire (Ra > 10 KOhm)SpecialtyWithoutMechanics/electronics6 ¼ A according to DIN 3852-EProcess connectionG ¼ A according to DIN 3852-EWetted partsStandard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 barPressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V D C 30 V DCElectrical safetyOvervoltage protection: 26 V DC Short-circuit protection: L* to M Protection class: IIIDielectric strength500 V DC, NEC Class O2 power supply (low voltage and low current max. 100 VA even in the event of a fault)Electrical safetyPressure equipment directive: 2014/108/EU ENC directive: 2004/108/EC, EN 61326-2-3	Pressure unit	bar
Maximum ohmic load Ra4 mA 20 mA, 2.wire (Ra ≤ (L* - 10 V) / 0.02 A [0hm]) 0 V 5 V, 3.wire (Ra > 5 K0hm) 0 V 10 V, 3.wire (Ra > 5 K0hm) 0 V 10 V, 3.wire (Ra > 10 K0hm)Output signal4 mA 20 mA, 2.wire WithoutSpecialtyWithoutMechanics/electronics6 ¼ A according to DIN 3852-E Standard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barProcess connectionG ¼ A according to DIN 3852-E Standard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)Pressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V D C 30 V DCElectrical safetyOvervoltage protection: 26 VDC Short-circuit protection: L* to M Protection class: IIIDielectric strength500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)Electrical safetyPressure equipment directive: 2014/108/EU ENC directive: 2004/108/EC, EN 61326-2-3	Measuring range	0 bar 25 bar
Ov 5 V, 3-wire (RA > 5 kOhm) O V 10 V, 3-wire (RA > 10 kOhm)Output signal4 mA 20 mA, 2-wireSpecialtyWithoutMechanics/electronicsProcess connectionG ¼ A according to DIN 3852-EWetted partsStandard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)Pressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V DC 30 V DCElectrical safetyOvervoltage protection: 36 V DC Short-circuit protection: 2, towards M Reverse polarity protection: 1, * to M Protection class: IIIDielectric strength500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)Pressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Process temperature	-30 °C +100 °C
SpecialtyWithoutMechanics/electronicsProcess connectionG ¼ A according to DIN 3852-EWetted partsStandard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)Pressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V D C 30 V D CElectrical safetyOvervoltage protection: 36 V D C Short-circuit protection: 24 towards M Reverse polarity protection: L* to M Protection class: IIIDielectric strength500 V D C, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)Pressure equipment directive: 2004/108/EC, EN 61326-2-3Pressure 2004/108/EC, EN 61326-2-3	Maximum ohmic load R <sub>A</sub>	0 V 5 V, 3-wire (R <sub>A</sub> > 5 kOhm)
Mechanics/electronics   Process connection G ¼ A according to DIN 3852-E   Wetted parts Standard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 bar   Internal transmission fluid Synthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)   Pressure port Standard   Housing material Stainless steel 1.4571   Connection type M12 round connector x 1, 4-pin   Supply voltage 10 V D C 30 V D C   Electrical safety Overvoltage protection: 36 V D C Short-circuit protection: U to Marries M Reverse polarity protection: L* to M Protection class: III   Dielectric strength 500 V D C, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)   CE-conformity Pressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Output signal	4 mA 20 mA, 2-wire
Process connectionG ¼ A according to DIN 3852-EWetted partsStandard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)Pressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage0 V D C 30 V D CElectrical safetyOvervoltage protection: 36 V D C Short-circuit protection: QA towards M Reverse polarity protection class: IIIDielectric strengthS00 V D C, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)CE-conformityPressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Specialty	Without
Wetted partsStandard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)Pressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltageOV PC 30 V DCElectrical safetyOvervoltage protection: 36 V DC Short-circuit protection: QA towards M Reverse polarity protection: L* to M Protection class: IIIDielectric strengthS00 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)CE-conformityPressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Mechanics/electronics	
25 barInternal transmission fluidSynthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)Pressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V DC 30 V DCElectrical safetyOvervoltage protection: 36 V DC Short-circuit protection: QA towards M Reverse polarity protection: L* to M Protection class: IIIDielectric strength500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)CE-conformityPressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Process connection	G ¼ A according to DIN 3852-E
Pressure portStandardHousing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V DC 30 V DCElectrical safetyOvervoltage protection: 36 V DC Short-circuit protection: QA towards M Reverse polarity protection: L* to M Protection class: IIIDielectric strength500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)CE-conformityPressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Wetted parts	
Housing materialStainless steel 1.4571Connection typeM12 round connector x 1, 4-pinSupply voltage10 V DC 30 V DCElectrical safetyOvervoltage protection: 36 V DC Short-circuit protection: QA towards M Reverse polarity protection: L* to M Protection class: IIIDielectric strength500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)CE-conformityPressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Internal transmission fluid	Synthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)
Connection typeM12 round connector x 1, 4-pinSupply voltage10 V DC 30 V DCElectrical safetyOvervoltage protection: 36 V DC Short-circuit protection: QA towards M Reverse polarity protection: L* to M Protection class: IIIDielectric strength500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)CE-conformityPressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Pressure port	Standard
Supply voltage 10 V DC 30 V DC   Electrical safety Overvoltage protection: 36 V DC   Short-circuit protection: Q <sub>A</sub> towards M   Reverse polarity protection: L <sup>+</sup> to M   Protection class: III   Dielectric strength 500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)   CE-conformity Pressure equipment directive: 2014/68/EU   EMC directive: 2004/108/EC, EN 61326-2-3	Housing material	Stainless steel 1.4571
Electrical safetyOvervoltage protection: 36 V DC Short-circuit protection: QA towards M Reverse polarity protection: L* to M Protection class: IIIDielectric strength500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)CE-conformityPressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Connection type	M12 round connector x 1, 4-pin
Short-circuit protection: QA towards M   Reverse polarity protection: L <sup>+</sup> to M   Protection class: III   Dielectric strength   500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)   CE-conformity   Pressure equipment directive: 2014/68/EU   EMC directive: 2004/108/EC, EN 61326-2-3	Supply voltage	10 V DC 30 V DC
Protection class: III   Dielectric strength 500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)   CE-conformity Pressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3	Electrical safety	Short-circuit protection: Q <sub>A</sub> towards M
<b>CE-conformity</b> Pressure equipment directive: 2014/68/EU   EMC directive: 2004/108/EC, EN 61326-2-3		
EMC directive: 2004/108/EC, EN 61326-2-3	Dielectric strength	
Weight sensor Approx 200 g	CE-conformity	
	Weight sensor	Approx. 200 g

<sup>1)</sup> Enclosure rating IP per IEC 60529. The enclosure rating classes specified only apply when connected with female connectors that provide the corresponding enclosure rating.

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Seal	NBR
Enclosure rating	IP67 <sup>1)</sup>
Protection class III	$\checkmark$
MTTF	403 years

<sup>1)</sup> Enclosure rating IP per IEC 60529. The enclosure rating classes specified only apply when connected with female connectors that provide the corresponding enclosure rating.

#### Performance

Non-linearity	$\leq$ ± 0.2 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2		
Accuracy	$\leq$ ± 0.5 % of the span		
Non-repeatability	$\leq \pm 0.1$ % of the span		
Response time (10 % 90 %)	$\leq$ 1 ms $\leq$ 10 ms at medium temperatures below < –30 °C for pressure ranges up to 25 bar or with flush-mounted membrane		
Long-term drift/one-year stability	$\leq$ ± 0.2 % of span (at reference conditions)		
Temperature coefficient in rated tempera- ture range	Mean TC of zero: $\leq$ 0.2 % of span / 10 K (< 0.4 % for pressure ranges $\leq$ 0.25 bar) Mean TC of span $\leq$ 0.2 % of span / 10 K		
Rated temperature range	0 °C +80 °C		
Service life	Minimum 10 Mio. load cycles		
Ambient data			
Ambient temperature	-20 °C +80 °C		
Storage temperature	-40 °C +100 °C, with flush-mounted membrane and cooling element –20 °C +100 °C		
Shock load	1000 g according to IEC 60068-2-27 (mechanical shock) 400 g according to IEC 60068-2-27 (mechanical shock) for version with integrated cooling ele- ment		
Vibration load	20 g according to IEC 60068-2-6 (vibration under resonance) 10 g according to IEC 60068-2-6 (vibration undencr resonae) for version with integrated cool- ing element		

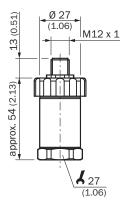
#### Classifications

eCl@ss 5.0	27200614
eCl@ss 5.1.4	27200614
eCl@ss 6.0	27200614
eCl@ss 6.2	27200614
eCl@ss 7.0	27200614
eCl@ss 8.0	27200614
eCl@ss 8.1	27200614
eCl@ss 9.0	27200614
eCl@ss 10.0	27200614
eCl@ss 11.0	27200614
eCl@ss 12.0	27200614
ETIM 5.0	EC011478
ETIM 6.0	EC011478
ETIM 7.0	EC011478
ETIM 8.0	EC011478
UNSPSC 16.0901	41112410

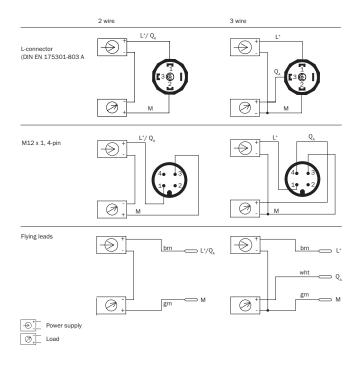
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Dimensional drawing (Dimensions in mm (inch))

Housing with circular plug-in connector M12 x 1



## Connection type



## **Recommended accessories**

Other models and accessories -> www.sick.com/PFT

	Brief description	Туре	Part no.
Mounting brac	kets and plates		
Fat	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501

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	Brief description	Туре	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	DOL-1204-W05MD	6020399
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A14- 020UB3XLEAX	2095607
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A14- 020VB3XLEAX	2096234
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A14- 050UB3XLEAX	2095608
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14- 050VB3XLEAX	2096235
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A14- 100UB3XLEAX	2095609
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF2A14- 100VB3XLEAX	2096236
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 15 m	YF2A14- 150UB3XLEAX	2095610
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 15 m	YF2A14- 150VB3XLEAX	2096237
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 20 m	YF2A14- 200UB3XLEAX	2095611
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 20 m	YF2A14- 200VB3XLEAX	2096238
<b>N</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 25 m	YF2A14- 250UB3XLEAX	2095615
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A14- 020UB3XLEAX	2095766
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A14- 020VB3XLEAX	2095895
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A14- 050UB3XLEAX	2095767
*	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A14- 050VB3XLEAX	2095897

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	Brief description	Туре	Part no.
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YG2A14- 100UB3XLEAX	2095768
*	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YG2A14- 100VB3XLEAX	2095898
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 15 m	YG2A14- 150UB3XLEAX	2095769
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 15 m	YG2A14- 150VB3XLEAX	2096213
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 20 m	YG2A14- 200UB3XLEAX	2095770
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 20 m	YG2A14- 200VB3XLEAX	2096214
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 25 m	YG2A14- 250UB3XLEAX	2095771

# SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

# WORLDWIDE PRESENCE:

Contacts and other locations -www.sick.com



Online data sheet

