## Diffuse scan SOOE-KS-L-PNLK-T Part number: 8075669



## **Data sheet**

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	文 Out/IO-Link	

## General operating condition

Design       Block design         Conforms to standard       EN 60947-5:2         Symbol       00995966         Certification       RCM compliance mark c UL us - Listed (OL)         CE marking (see declaration of conformity)       As per EU Rolf directive         As per EU Rolf directive       As per EU Rolf directive         UKCA marking (see declaration of conformity)       To UK Instructions for EMC         Confidate issuing authority       UL E232949         Note on materials       RoH5-compliant         Measuring principle       Optoelectronic         Detection method       Laser contrast sensor         Type of light       Laser         Max. light spot       1 mm for scan width of 60 mm         Minimum object diameter       1 mm         Working range       25 mm 120 mm         Ambient temperature       40° C 60° C         Reference material       Standard white 90%, 100x100 mm         Switching output       Push-pull         Switchable       PMP, bright-switching         Max. output current       100 mA         Voltage drop       0 V 15 V         Timer function       Via Point-switching         NPN, dark-switching       N	Feature	Value
Symbol       00995956         Certification       RCM compliance mark c UL us - Listed (OL)         CE marking (see declaration of conformity)       As per EU EMC directive As per EU EMC directive         UKCA marking (see declaration of conformity)       To UK Instructions for EMC To UK RoHS instructions         Certificate issuing authority       UL E232949         Note on materials       RoHS-compliant         Measuring principle       Optoelectronic         Detection method       Laser contrast sensor         Type of light       Laser         Max. light spot       1 mm for scan width of 60 mm         Minimum object diameter       1 mm         Working range       25 mm 120 mm         Ambit temperature       -40 °C 60 °C         Reference material       Standard white 90%, 100x100 mm         Switching output       Push-pull         Switching element function       Switching NNN, dark-switching         Max. switching frequency       3300 Hz         Max. soutput current       100 mA         Voltage drop       0V 15 V         Timer function       Via IO-Link@         Short-circuit protection       Pulsed         Protocol       IO-Link@, process data width OUT	Design	Block design
Certification     RCM compliance mark c UL us - Listed (OL)       CE marking (see declaration of conformity)     As per EU BMC directive As per EU RMS directive       UKCA marking (see declaration of conformity)     To UK instructions for EMC To UK RoHS instructions       Certificate issuing authority     UL E232949       Note on materials     RoHS-compliant       Measuring principle     Optoelectronic       Detection method     Laser contrast sensor       Type of light     Red       Max. light spot     1 mm for scan width of 60 mm       Minimum object diameter     1 mm       Working range     25 mm 120 mm       Ambient temperature     -40 °C 60 °C       Reference material     Standard white 90%, 100x100 mm       Switching output     Push-pull       Switching turnent     100 mA       Voltage drop     0 V 1.5 V       Timer function     Via IO-Link@       Short-circuit protection     Pulsed       Protocol     IO-Link@       IO-Link@, process data width OUT     2 bit       IO-Link@, process data width OUT     2 bit       IO-Link@, process data content OUT     1 bit (molid)	Conforms to standard	EN 60947-5-2
cUL us - Listed (01)         CE marking (see declaration of conformity)       As per EU BMC directive         UKCA marking (see declaration of conformity)       To UK instructions for EMC         Certificate issuing authority       UL 232949         Note on materials       RoHS-compliant         Measuring principle       Optoelectronic         Detection method       Laser contrast sensor         Type of light       Red         Max. light spot       1 mm for scan width of 60 mm         Minimum object diameter       1 mm         Working range       25 mm 120 mm         Ambient temperature       -40 °C 60 °C         Reference material       Standard white 90%, 100x100 mm         Switching output       Push-pull         Switching requency       3300 Hz         Max. output current       100 mA         Voltage drop       0 V 15 V         Timer function       Pulsed         Protocol       IO-Link@         Protocol       IO-Link@         Output       Valage drop         Output       Valage drop         OV 15 V       Timer function         Via IO-Link@, protocol version       Device V 1.1 <td>Symbol</td> <td>00995956</td>	Symbol	00995956
As per EU RoHS directive       UKCA marking (see declaration of conformity)     To UK instructions for EMC       To UK RoHS instructions     Certificate issuing authority       UL E232949       Note on materials     RoHS-compliant       Measuring principle     Optoelectronic       Detection method     Laser contrast sensor       Type of light     Laser       Max. light spot     1 mm for scan width of 60 mm       Minimum object diameter     1 mm       Working range     25 mm 120 mm       Ambient temperature     40 °C 60 °C       Reference material     Standard white 90%, 100x100 mm       Switching output     Push-pull       Switching element function     Switchable       PNP, dark-switching     NPN, dark-switching       NPA, dark     100 mA       Voltage drop     0 V 1.5 V       Timer function     Via 10-Link@       Short-circuit protection     Periced       Protocol     IO-Link@       IO-Link@, protocol version     Device V 1.1       IO-Link@, protocol version     Device V 1.1       IO-Link@, protocol version     Device V 1.1       IO-Link@, protecol version <td< td=""><td>Certification</td><td></td></td<>	Certification	
To UK RoHS instructions       Certificate issuing authority     UL E232949       Note on materials     RoHS-compliant       Measuring principle     Optoelectronic       Detection method     Laser contrast sensor       Type of light     Laser       Max. light spot     1 mm for scan width of 60 mm       Minimum object diameter     1 mm       Working range     25 mm       Ambient temperature     -40 °C 60 °C       Reference material     Standard white 90%, 100x100 mm       Switching output     Push-pull       Switching element function     Switchable       PNP. bright-switching     NPN. dark-switching       Max. suitching frequency     3300 Hz       Max. output current     100 mA       Voltage drop     0 V 1.5 V       Timer function     Pulsed       Protocol     IO-Link@       Protocol version     Device V 1.1       IO-Link@, protocol version     Device V 1.1       IO-Link@, protocal support     Yes       IO-Link@, process data width OUT     2 bit       IO-Link@, process data content OUT     1 bit (mitter disable)       1bit (hold)     1 bit (mitter disable)<	CE marking (see declaration of conformity)	
Note on materials       RoHS-compliant         Measuring principle       Optoelectronic         Detection method       Laser contrast sensor         Type of light       Laser Reed         Max. light spot       1 mm for scan width of 60 mm         Minimum object diameter       1 mm         Working range       25 mm 120 mm         Ambient temperature       -40 °C 60 °C         Reference material       Standard white 90%, 100x100 mm         Switching output       Push-pull         Switching requency       3300 Hz         Max. switching frequency       3300 Hz         Max. output current       100 mA         Voltage drop       0 V 1.5 V         Timer function       Pulsed         Protocol       IO-Link@         Short-circuit protection       Pulsed         Protocol       IO-Link@         IO-Link@, protocol version       Device V 1.1         IO-Link@, slop onde support       Yes         IO-Link@, process data width OUT       2 bit         IO-Link@, process data content OUT       1 bit (emitter disable)         1 bit (hold)       1 bit (hold)	UKCA marking (see declaration of conformity)	
Measuring principle       Optoelectronic         Detection method       Laser contrast sensor         Type of light       Laser Red         Max. light spot       1 mm for scan width of 60 mm         Minimum object diameter       1 mm         Working range       25 mm 120 mm         Ambient temperature       40 °C 60 °C         Reference material       Standard white 90%, 100x100 mm         Switching output       Push-pull         Switching element function       Switchable PNP, bright-switching         Max. switching frequency       3300 Hz         Max. output current       100 mA         Voltage drop       0 V 1.5 V         Timer function       Via IO-Link@         Protocol       IO-Link@         IO-Link@, protocol version       Device V 1.1         IO-Link@, sond support       Yes         IO-Link@, port class       A         IO-Link@, process data width OUT       Z bit         IO-Link@, process data content OUT       1 bit (emitter disable)         1 bit (hold)       1 bit (hold)	Certificate issuing authority	UL E232949
Detection method     Laser contrast sensor       Type of light     Laser Red       Max. light spot     1 mm for scan width of 60 mm       Minimum object diameter     1 mm       Working range     25 mm 120 mm       Ambient temperature     40 °C 60 °C       Reference material     Standard white 90%, 100x100 mm       Switching output     Push-pull       Switching element function     Switchable PNP, bright-switching       Max. switching frequency     3300 Hz       Max. output current     100 mA       Voltage drop     0 V 1.5 V       Timer function     Via IO-Link®       Protocol     IO-Link®       IO-Link@, protocol version     Device V 1.1       IO-Link@, sond support     Yes       IO-Link@, port class     A       IO-Link@, process data width OUT     2 bit       IO-Link@, process data content OUT     1 bit (emitter disable)       1 bit (hold)     1 bit (hold)	Note on materials	RoHS-compliant
Type of lightLaser RedMax. light spot1 mm for scan width of 60 mmMinimum object diameter1 mmWorking range25 mm 120 mmAmbient temperature-40 °C 60 °CReference materialStandard white 90%, 100x100 mmSwitching outputPush-pullSwitching element functionSwitchable PNP, bright-switching NPN, dark-switchingMax. switching frequency3300 HzMax. output current100 mAVoltage drop0 V 1.5 VTimer functionVia IO-Link@Short-circuit protectionPulsedProtocolIO-Link@IO-Link@, protocol versionCOM2 (38,4 kBd)IO-Link@, process data width OUT2 bitIO-Link@, process data content OUT1 bit (emitter disable) 1 bit (hold)	Measuring principle	Optoelectronic
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Minimum object diameter1 mmWorking range25 mm 120 mmAmbient temperature-40 °C 60 °CReference materialStandard white 90%, 100x100 mmSwitching outputPush-pullSwitching element functionSwitchable PNP, bright-switching NPN, dark-switchingMax. switching frequency3300 HzMax. output current100 mAVoltage drop0 V 1.5 VTimer functionVia IO-Link@Short-circuit protectionPulsedProtocolIO-Link@IO-Link@, protocol versionDevice V 1.1IO-Link@, s10 mode supportYesIO-Link@, prot classAIO-Link@, process data width OUT2 bitIO-Link@, process data content OUT1 bit (emitter disable) 1 bit (hold)	Type of light	
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Switching outputPush-pullSwitching element functionSwitchable PNP, bright-switching NPN, dark-switchingMax. switching frequency3300 HzMax. output current100 mAVoltage drop0 V 1.5 VTimer functionVia IO-Link®Short-circuit protectionPulsedProtocolIO-Link®IO-Link®, protocol versionDevice V 1.1IO-Link®, sl0 mode supportYesIO-Link®, process data width OUT2 bitIO-Link®, process data content OUT1 bit (emitter disable) 1 bit (hold)	Ambient temperature	-40 °C 60 °C
Switching element functionSwitchable PNP, bright-switching NPN, dark-switchingMax. switching frequency3300 HzMax. output current100 mAVoltage drop0 V 1.5 VTimer functionVia IO-Link@Short-circuit protectionPulsedProtocolIO-Link@IO-Link@, protocol versionDevice V 1.1IO-Link@, sIO mode supportYesIO-Link@, port classAIO-Link@, process data width OUT2 bitIO-Link@, process data content OUT1 bit (emitter disable) 1 bit (hold)	Reference material	Standard white 90%, 100x100 mm
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Max. output current100 mAVoltage drop0 V 1.5 VTimer functionVia IO-Link®Short-circuit protectionPulsedProtocolIO-Link®IO-Link®, protocol versionDevice V 1.1IO-Link®, communication modeCOM2 (38,4 kBd)IO-Link®, port classAIO-Link®, process data width OUT2 bitIO-Link®, process data content OUT1 bit (emitter disable) 1 bit (hold)	Switching element function	PNP, bright-switching
Voltage drop0 V 1.5 VTimer functionVia IO-Link®Short-circuit protectionPulsedProtocolIO-Link®IO-Link®, protocol versionDevice V 1.1IO-Link®, communication modeCOM2 (38,4 kBd)IO-Link®, SIO mode supportYesIO-Link®, port classAIO-Link®, process data width OUT2 bitIO-Link®, process data content OUT1 bit (emitter disable) 1 bit (hold)	Max. switching frequency	3300 Hz
Timer functionVia IO-Link®Short-circuit protectionPulsedProtocolIO-Link®IO-Link®, protocol versionDevice V 1.1IO-Link®, communication modeCOM2 (38,4 kBd)IO-Link®, SIO mode supportYesIO-Link®, port classAIO-Link®, process data width OUT2 bitIO-Link®, process data content OUT1 bit (emitter disable) 1 bit (hold)	Max. output current	100 mA
Short-circuit protectionPulsedProtocolIO-Link®IO-Link®, protocol versionDevice V 1.1IO-Link®, communication modeCOM2 (38,4 kBd)IO-Link®, SIO mode supportYesIO-Link®, port classAIO-Link®, process data width OUT2 bitIO-Link®, process data content OUT1 bit (emitter disable) 1 bit (hold)	Voltage drop	0 V 1.5 V
ProtocolIO-Link®IO-Link®, protocol versionDevice V 1.1IO-Link®, communication modeCOM2 (38,4 kBd)IO-Link®, SIO mode supportYesIO-Link®, port classAIO-Link®, process data width OUT2 bitIO-Link®, process data content OUT1 bit (emitter disable) 1 bit (hold)	Timer function	Via IO-Link®
IO-Link®, protocol versionDevice V 1.1IO-Link®, communication modeCOM2 (38,4 kBd)IO-Link®, SIO mode supportYesIO-Link®, port classAIO-Link®, process data width OUT2 bitIO-Link®, process data content OUT1 bit (emitter disable) 1 bit (hold)	Short-circuit protection	Pulsed
IO-Link®, communication mode   COM2 (38,4 kBd)     IO-Link®, SIO mode support   Yes     IO-Link®, port class   A     IO-Link®, process data width OUT   2 bit     IO-Link®, process data content OUT   1 bit (emitter disable) 1 bit (hold)	Protocol	IO-Link®
IO-Link®, SIO mode support   Yes     IO-Link®, port class   A     IO-Link®, process data width OUT   2 bit     IO-Link®, process data content OUT   1 bit (emitter disable) 1 bit (hold)	IO-Link®, protocol version	Device V 1.1
IO-Link®, port class   A     IO-Link®, process data width OUT   2 bit     IO-Link®, process data content OUT   1 bit (emitter disable) 1 bit (hold)	IO-Link®, communication mode	COM2 (38,4 kBd)
IO-Link®, process data width OUT   2 bit     IO-Link®, process data content OUT   1 bit (emitter disable)     1 bit (hold)	IO-Link®, SIO mode support	Yes
IO-Link®, process data content OUT     1 bit (emitter disable)     1 bit (hold)	IO-Link®, port class	A
1 bit (hold)	IO-Link®, process data width OUT	2 bit
IO-Link®, process data width IN 1 bit	IO-Link®, process data content OUT	
	IO-Link®, process data width IN	1 bit

Feature	Value
IO-Link®, process data content IN	1 bit SSC (switching signal)
IO-Link®, minimum cycle time	2.3 ms
IO-Link®, data memory required	2000 byte
DC operating voltage range	10 V 30 V
Residual ripple	10 %
Idle current	25 mA
Reverse polarity protection	for all electrical connections
Electrical connection 1, connection type	Plug
Electrical connection 1, connection technology	M8x1 A-coded as per EN 61076-2-104
Electrical connection 1, number of pins/wires	3
Electrical connection 1, type of mounting	Screw-type lock
Electrical connection for input 1, connection pattern	00991155
Material of pin contacts	Brass, gold-plated
Type of mounting	With through-hole for M3 screw
Tightening torque	0.8 Nm
Mounting position	Any
Product weight	20 g
Housing material	PC PMMA
Ready status indication	LED green
Switching status indication	LED yellow
Setting options	IO-Link® Potentiometer Teach-in
Degree of protection	IР65 IР67 IР69К
Insulation voltage	500 V
Surge resistance	1 kV
Corrosion resistance class (CRC)	1 - Low corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III
Laser safety class	1
Contamination level	3