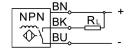
## Proximity sensor SIEF-M12NB-NS-K-L

Part number: 538314







## **Data sheet**

Design Round  En 60947-5-2  En 60947-5-2  Symbol 00991704  Ecriffication RCM compliance mark cUL us - Listed (OL)  Er marking (see declaration of conformity) As per EU EMC directive  Emarking (see declaration of conformity) As per EU EMC directive  Note on materials Free of copper and PTFE  Measuring principle Inductive  Rated operating distance 8 mm  Resoured operating distance 8 mm  Resoured operating distance 6.48 mm  Aluminum = 1.0  Stainless steel \$1 18/8 = 1.0  Copper = 1.0  Brass = 1.0  Steel \$37 = 1.0  Ambient temperature 30 °C 85 °C  Repetition accuracy 0.16 mm  Switching output NPN  Switching element function N/O contact  Nylo contact  Wax. switching frequency DC 2000 Hz  Max. switching frequency DC 2000 Hz  Max. output current 200 mA  Woltage drop \$1.8 V  Short-circuit protection Pulsed  Oc operating voltage range 10 °V 30 V  Residual ripple 10 %  Reverse polarity protection for all electrical connections  Electrical connection 3 swire  Cable  Cable  Cable length TPE-U(PUR)  Maxefield occurrent PVC  Size M12  With lock nut	Feature	Value
En 60947-5-2 Symbol 00991704 RCM compliance mark cut us - listed (OL) Et marking (see declaration of conformity) As per EU EMC directive Note on materials Free of copper and PTFE Measuring principle Inductive Rated operating distance Reduction factors Assured operating distance Assured operating output Assured operating output Assured operating voltage Assured operating voltage range Assured operating voltag	Type code	SIEF
Symbol 00991704  Certification Certification RCM compliance mark cult us - Listed (OL)  E marking (see declaration of conformity) As per EU EMC directive  Note on materials Free of copper and PTFE  Measuring principle Inductive  Rated operating distance 8 mm  Assured operating distance  Reduction factors Aluminum = 1.0  Stalinless steel St 18/8 = 1.0  Copper = 1.0  Brass = 1.0  Steel St 37 = 1.0  Steel St 37 = 1.0  Switching output NPN  Switching element function N/O contact  Hysteresis 0.24 mm 1.2 mm  Max. switching frequency DC 2000 Hz  Max. output current 200 mA  Voltage drop \$1.8 V  Short-circuit protection Pulsed  DC operating voltage range 10 V 30 V  Residual ripple 10 %  Relectical connection Grable Steel  Cable length 2.5 m  Material of cable sheath TPE-U(PUR)  missualting sheath material PV  With lock nut  With lock nut	Design	Round
Lertification RCM compliance mark cut us - Listed (OL)  EE marking (see declaration of conformity)  As per EU EMC directive  Note on materials  Free of copper and PTFE  Measuring principle Inductive  Reduction grinciple Inductive  Reduction factors  Aluminum = 1.0 Stainless steel St 18/8 = 1.0 Copper = 1.0 Brass = 1.0 Steel St 37 = 1.0  Ambient temperature  -30 °C 85 °C Repetition accuracy 0.16 mm  NPN  Nylo contact  Hysteresis 0.24 mm 1.2 mm  Max. switching requency DC  Max. output current 200 mA  Voltage drop 4.8 V  Schort-Cricuit protection Pulsed DC operating voltage range 10 %  Reduction for all electrical connection  Selectrical connection  Cable  Lectrical connection  3-wire Cable  Cable length TPE-U(PUR)  Material for able sheath TPE-U(PUR)  Fixe of Copper and PTFE  Inductive  With lock nut  With lock nut  With lock nut  With lock nut	Conforms to standard	EN 60947-5-2
C UL us - Listed (OL)  Et marking (see declaration of conformity)  As per EU EMC directive  Note on materials  Measuring principle Inductive  Rated operating distance  Reduction factors  Aluminum = 1.0 Stainless steel St 18/8 = 1.0 Copper = 1.0 Brass = 1.0 Steel St 37 = 1.0 Steel St 37 = 1.0 Steel St 37 = 1.0  Ambient temperature  Repetition accuracy  O.16 mm  Switching output  NPN  Switching output  NPN  Max. switching frequency DC  Awax. switching frequency DC  Wax. output current  200 mA  Moltage drop  Stort-circuit protection  DC operating voltage range  10 V 30 V  Residual ripple  dle current  Reverse polarity protection  Copperating voltage range  10 V 30 V  Reverse polarity protection  For all electrical connections  Cable  Lactrical connection  TPE-U(PUR)  Insulating sheath material  PVC  Size  Mit Lactrical connecting  With lock nut	Symbol	00991704
Note on materials  Measuring principle  Measuring principle  All Inductive  Assured operating distance  Assured operating distance  Assured operating distance  All uminum = 1.0  Stainless steel St 18/8 = 1.0  Copper = 1.0  Steel St 37 = 1.0  Ambient temperature  Repetition accuracy  O.16 mm  NPN  Switching output  NPN  Switching element function  N/O contact  -lysteresis  O.24 mm 1.2 mm  Wax. output current  Voltage drop  \$1.8 V  Short-circuit protection  DC operating voltage range  10 V 30 V  Residual ripple  die current  \$15 mA  Reverse polarity protection  Cable  Cable length  Material of cable sheath  TPE-U(PUR)  Material of ackles heath  M12  Kype of mounting  With lock nut	Certification	
Measuring principle Rated operating distance Rated operating distance Reduction factors Reduction factors Reduction factors Reduction factors Reduction factors Reduction factors Repetition accuracy Repetiti	CE marking (see declaration of conformity)	As per EU EMC directive
Rated operating distance  Assured operating distance  Assu	Note on materials	Free of copper and PTFE
Assured operating distance  Reduction factors  Reduction factors  Reduction factors  Aluminum = 1.0 Stainless steel St 18/8 = 1.0 Copper = 1.0 Brass = 1.0 Steel St 37 = 1.0  Ambient temperature  30°C 85°C  Repetition accuracy  0.16 mm  NPN  Switching output  NPN  Switching element function  N/O contact  -lysteresis  0.24 mm 1.2 mm  Max. switching frequency DC  2000 Hz  Max. output current  200 mA  Voltage drop  \$1.8 V  Short-circuit protection  Pulsed  DC operating voltage range  10 V 30 V  Residual ripple  dle current  \$15 mA  Reverse polarity protection  for all electrical connections  2-wire Cable length  Material of cable sheath  TPE-U(PUR)  Insulating sheath material  PVC  Size  M12  With lock nut	Measuring principle	Inductive
Aluminum = 1.0 Stainless steel St 18/8 = 1.0 Copper = 1.0 Brass = 1.0 Steel St 37 = 1.0  Ambient temperature  Repetition accuracy  O.16 mm  Switching output  NPN  Switching element function  N/O contact  -lysteresis  O.24 mm 1.2 mm  Max. switching frequency DC  Wax. output current  200 mA  Voltage drop  \$1.8 V  Short-circuit protection  Pulsed  DC operating voltage range  10 V 30 V  Residual ripple  dle current  \$15 mA  Reverse polarity protection  \$3-wire Cable  Libertical connection  \$3-wire Cable  Libertical connection  \$3-wire Cable  Libertical of cable sheath  TPE-U(PUR)  Insulating sheath material  PVC  Size  M12  With lock nut	Rated operating distance	8 mm
Stainless steel St 18/8 = 1.0 Copper = 1.0 Brass = 1.0 Steel St 37 = 1.0  Ambient temperature 30 °C 85 °C Repetition accuracy 0.16 mm  NPN Switching output NPN Switching element function N/O contact Hysteresis 0.24 mm 1.2 mm  Max. switching frequency DC 2000 Hz  Max. output current 2000 mA Voltage drop short-circuit protection Pulsed OC operating voltage range 10 V 30 V Residual ripple 10 % Reverse polarity protection For all electrical connections Electrical connection Salvire Cable Cable length Activation TPE-U(PUR) Insulating sheath material Fye of mounting With lock nut With lock nut	Assured operating distance	6.48 mm
Repetition accuracy O.16 mm Switching output NPN Switching element function N/O contact Nysteresis O.24 mm 1.2 mm Max. switching frequency DC Wax. output current Voltage drop Short-circuit protection Pulsed OC operating voltage range 10 V 30 V Residual ripple 10 % Reverse polarity protection Flectrical connection Selectrical connection Selectrical connection TPE-U(PUR) Insulating sheath material Fype of mounting With lock nut  O.16 mm NPN NPN NPN NOO NPN NPN NOO NPN NOO NOO	Reduction factors	Stainless steel St 18/8 = 1.0 Copper = 1.0 Brass = 1.0
Switching output  NPN  Switching element function  N/O contact  1-tysteresis  0.24 mm 1.2 mm  2000 Hz  Max. switching frequency DC  Max. output current  200 mA  Voltage drop  \$1.8 V  Short-circuit protection  Pulsed  OC operating voltage range  10 V 30 V  Residual ripple  10 %  Reverse polarity protection  For all electrical connections  Electrical connection  3-wire  Cable length  2.5 m  Waterial of cable sheath  TPE-U(PUR)  Insulating sheath material  PVC  Type of mounting  With lock nut	Ambient temperature	-30 ℃ 85 ℃
Switching element function  N/O contact  Hysteresis  0.24 mm 1.2 mm  2000 Hz  2000 Hz  Max. output current  200 mA  Voltage drop  Short-circuit protection  Pulsed  OC operating voltage range  10 V 30 V  Residual ripple  10 %  Reverse polarity protection  For all electrical connections  Cable length  2.5 m  Material of cable sheath  TPE-U(PUR)  Insulating sheath material  Fype of mounting  With lock nut	Repetition accuracy	0.16 mm
Hysteresis 0.24 mm 1.2 mm  Max. switching frequency DC 2000 Hz  Max. output current 200 mA  Voltage drop \$1.8 V  Short-circuit protection Pulsed  DC operating voltage range 10 V 30 V  Residual ripple 10 %  Gle current \$15 mA  Reverse polarity protection for all electrical connections  Electrical connection 3-wire Cable  Cable length 2.5 m  Material of cable sheath TPE-U(PUR)  Insulating sheath material PVC  Size M12  Mith lock nut	Switching output	NPN
Max. switching frequency DC  Max. output current  200 mA  Voltage drop  \$1.8 V  Short-circuit protection  Pulsed  OC operating voltage range  10 V 30 V  Residual ripple  10 %  dle current  \$15 mA  Reverse polarity protection  For all electrical connections  Electrical connection  \$3-wire Cable  Cable length  2.5 m  Material of cable sheath  TPE-U(PUR)  Insulating sheath material  PVC  Size  M12  Type of mounting  With lock nut	Switching element function	N/O contact
Max. output current  200 mA  √oltage drop  ≤1.8 V  Short-circuit protection  Pulsed  C operating voltage range  10 V 30 V  Residual ripple  10 %  Reverse polarity protection  for all electrical connections  Electrical connection  3-wire Cable  Cable length  2.5 m  Material of cable sheath  TPE-U(PUR)  Insulating sheath material  PVC  Size  M12  Kype of mounting  With lock nut	Hysteresis	0.24 mm 1.2 mm
Voltage drop   \$1.8 V	Max. switching frequency DC	2000 Hz
Pulsed OC operating voltage range 10 V 30 V Residual ripple 10 % dle current 415 mA Reverse polarity protection Full electrical connections Full electrical connections Full electrical connection Full electrical connection Full electrical connection Full electrical connections Full electrical connection Full electrical connections Fu	Max. output current	200 mA
DC operating voltage range  10 V 30 V  Residual ripple  10 %  dle current  ≤15 mA  Reverse polarity protection  for all electrical connections  Electrical connection  3-wire Cable  Cable length  2.5 m  Material of cable sheath  TPE-U(PUR)  Insulating sheath material  PVC  Size  M12  Type of mounting  With lock nut	Voltage drop	≤1.8 V
Residual ripple 10 %  dle current ≤15 mA  Reverse polarity protection for all electrical connections  Electrical connection 3-wire Cable  Cable length 2.5 m  Material of cable sheath TPE-U(PUR)  Insulating sheath material PVC  Size M12  Type of mounting With lock nut	Short-circuit protection	Pulsed
Severse polarity protection   Severse polarity protections   Severse	DC operating voltage range	10 V 30 V
Reverse polarity protection for all electrical connections  3-wire Cable  Cable length 2.5 m  Material of cable sheath TPE-U(PUR)  Insulating sheath material PVC  Size M12  Type of mounting With lock nut	Residual ripple	10 %
Electrical connection  3-wire Cable Cable Cable length  2.5 m  Waterial of cable sheath  TPE-U(PUR)  nsulating sheath material  PVC Size  M12  Type of mounting  With lock nut	Idle current	≤15 mA
Cable Cable length 2.5 m  Waterial of cable sheath TPE-U(PUR) Insulating sheath material PVC Size M12  Type of mounting With lock nut	Reverse polarity protection	for all electrical connections
Material of cable sheath TPE-U(PUR)  nsulating sheath material PVC Size M12  Type of mounting With lock nut	Electrical connection	
nsulating sheath material PVC Size M12 Type of mounting With lock nut	Cable length	2.5 m
Size M12 Type of mounting With lock nut	Material of cable sheath	TPE-U(PUR)
Type of mounting With lock nut	Insulating sheath material	PVC
	Size	M12
Fightening torque 10 Nm	Type of mounting	With lock nut
	Tightening torque	10 Nm

Feature	Value
Mounting type	Partially flush
Product weight	120 g
Housing material	Brass PBT Chrome-plated
Switching status indication	LED yellow
Ambient temperature with flexible cable installation	0 °C 80 °C
Degree of protection	IP67
Resistance to interference from magnetic fields	Magnetic direct and alternating fields
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
Selection of additional sensor information	With reduction factor 1 – resistance to magnetic fields
Electrical output	NPN
Selection of sensor version	Standard