



Model Number

SC2-N0-GN

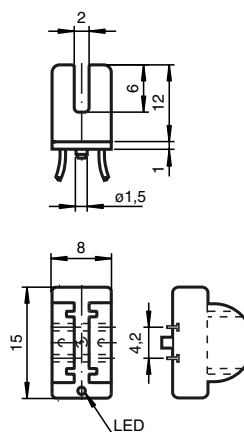
Features

- 2 mm slot width

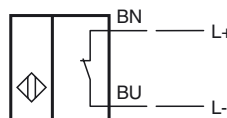
Technical Data

General specifications	
Switching function	Normally closed (NC)
Output type	NAMUR
Slot width	2 mm
Depth of immersion (lateral)	5 ... 7 mm , typ. 6 mm
Output type	2-wire
Nominal ratings	
Nominal voltage	U_o 8.2 V (R_i approx. 1 k Ω)
Operating voltage	U_B 5 ... 25 V
Switching frequency	f 0 ... 5000 Hz
Hysteresis	H 0.11 ... 0.2 mm
Design data	
Current consumption	
Measuring plate not detected	\geq 3 mA
Measuring plate detected	\leq 1 mA
Switching state indicator	LED, yellow
Functional safety related parameters	
MTTF _d	5790 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %
Ambient conditions	
Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
Mechanical specifications	
Connection type	cable PVC , 500 mm
Core cross-section	0.06 mm ²
Housing material	PBT
Degree of protection	IP67
General information	
Use in the hazardous area	see instruction manuals
Compliance with standards and directives	
Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility Standards	NE 21:2007 EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
Approvals and certificates	
UL approval	cULus Listed, General Purpose
Ordinary Location	E87056
Hazardous Location	E501628
Control drawing	116-0453
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated \leq 36 V

Dimensions



Electrical Connection



Release date: 2019-08-27 16:38 Date of issue: 2019-08-27 095288_eng.xml

Data for application in connection with hazardous areas

Equipment protection level	Ga , Gb , Gc (ic) , Da , Mb	
Equipment protection level Ga		
Type of protection	intrinsic safety	
CE marking	CE 0102	
Certificates		
Appropriate type	SC2-N0...	
ATEX certificate	PTB 99 ATEX 2219 X	
ATEX marking	Ex II 1G Ex ia IIC T6...T1 Ga	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
IECEX certificate	IECEX PTB 11.0091X	
IECEX marking	Ex ia IIC T6...T1 Ga	
Standards	IEC 60079-0:2011 , IEC 60079-11:2011	
Effective internal capacitance	C_i	$\leq 150 \text{ nF}$ A cable length of 10 m is considered.
Effective internal inductance	L_i	$\leq 150 \text{ }\mu\text{H}$ A cable length of 10 m is considered.
Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values.	
for ATEX	at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 34 \text{ mW}$, T6 : 55 °C (131 °F) T5 : 67 °C (152.6 °F) T4 : 95 °C (203 °F) T3 : 95 °C (203 °F) T2 : 95 °C (203 °F) T1 : 95 °C (203 °F) at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 64 \text{ mW}$, T6 : 48 °C (118.4 °F) T5 : 60 °C (140 °F) T4 : 88 °C (190.4 °F) T3 : 88 °C (190.4 °F) T2 : 88 °C (190.4 °F) T1 : 88 °C (190.4 °F) at $U_i = 16 \text{ V}$, $I_i = 52 \text{ mA}$, $P_i = 169 \text{ mW}$, T6 : 23 °C (73.4 °F) T5 : 35 °C (95 °F) T4 : 63 °C (145.4 °F) T3 : 63 °C (145.4 °F) T2 : 63 °C (145.4 °F) T1 : 63 °C (145.4 °F) at $U_i = 16 \text{ V}$, $I_i = 76 \text{ mA}$, $P_i = 242 \text{ mW}$, T6 : 6 °C (42.8 °F) T5 : 18 °C (64.4 °F) T4 : 46 °C (114.8 °F) T3 : 46 °C (114.8 °F) T2 : 46 °C (114.8 °F) T1 : 46 °C (114.8 °F)	
for IECEx	at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 34 \text{ mW}$, T6 : 72 °C (161.6 °F) T5 : 87 °C (188.6 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 64 \text{ mW}$, T6 : 65 °C (149 °F) T5 : 80 °C (176 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 16 \text{ V}$, $I_i = 52 \text{ mA}$, $P_i = 169 \text{ mW}$, T6 : 40 °C (104 °F) T5 : 55 °C (131 °F) T4 : 75 °C (167 °F) T3 : 75 °C (167 °F) T2 : 75 °C (167 °F) T1 : 75 °C (167 °F) at $U_i = 16 \text{ V}$, $I_i = 76 \text{ mA}$, $P_i = 242 \text{ mW}$, T6 : 23 °C (73.4 °F) T5 : 38 °C (100.4 °F) T4 : 54 °C (129.2 °F) T3 : 54 °C (129.2 °F) T2 : 54 °C (129.2 °F) T1 : 54 °C (129.2 °F)	

Release date: 2019-08-27 16:38 Date of issue: 2019-08-27 095288_eng.xml

Equipment protection level Gb

Type of protection	intrinsic safety	
CE marking	CE 0102	
Certificates		
Appropriate type	SC2-N0...	
ATEX certificate	PTB 99 ATEX 2219 X	
ATEX marking	Ⓔ II 1G Ex ia IIC T6...T1 Ga	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
IECEX certificate	IECEX PTB 11.0091X	
IECEX marking	Ex ia IIC T6...T1 Ga	
Standards	IEC 60079-0:2011 , IEC 60079-11:2011	
Effective internal capacitance	C_i	≤ 150 nF A cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 150 μH A cable length of 10 m is considered.
Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 34\text{ mW}$, T6 : 72 °C (161.6 °F) T5 : 87 °C (188.6 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 64\text{ mW}$, T6 : 65 °C (149 °F) T5 : 80 °C (176 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 52\text{ mA}$, $P_i = 169\text{ mW}$, T6 : 40 °C (104 °F) T5 : 55 °C (131 °F) T4 : 75 °C (167 °F) T3 : 75 °C (167 °F) T2 : 75 °C (167 °F) T1 : 75 °C (167 °F) at $U_i = 16\text{ V}$, $I_i = 76\text{ mA}$, $P_i = 242\text{ mW}$, T6 : 23 °C (73.4 °F) T5 : 38 °C (100.4 °F) T4 : 54 °C (129.2 °F) T3 : 54 °C (129.2 °F) T2 : 54 °C (129.2 °F) T1 : 54 °C (129.2 °F)	

Equipment protection level Gc (ic)

Type of protection	intrinsic safety	
CE marking	CE	
Certificates		
ATEX certificate	PF13CERT2895 X	
ATEX marking	Ⓔ II 3G Ex ic IIC T6...T1 Gc	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
Effective internal capacitance	C_i	≤ 150 nF A cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 150 μH A cable length of 10 m is considered.
Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at $U_i = 20\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 34\text{ mW}$, T6 : 66 °C (150.8 °F) T5 : 81 °C (177.8 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 20\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 64\text{ mW}$, T6 : 65 °C (149 °F) T5 : 80 °C (176 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 20\text{ V}$, $I_i = 52\text{ mA}$, $P_i = 169\text{ mW}$, T6 : 40 °C (104 °F) T5 : 55 °C (131 °F) T4 : 75 °C (167 °F) T3 : 75 °C (167 °F) T2 : 75 °C (167 °F) T1 : 75 °C (167 °F) at $U_i = 20\text{ V}$, $I_i = 76\text{ mA}$, $P_i = 242\text{ mW}$, T6 : 23 °C (73.4 °F) T5 : 38 °C (100.4 °F) T4 : 54 °C (129.2 °F) T3 : 54 °C (129.2 °F) T2 : 54 °C (129.2 °F) T1 : 54 °C (129.2 °F)	

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Equipment protection level Da

Type of protection	intrinsic safety	
CE marking	CE 0102	
Certificates		
Appropriate type	SC2-N0...	
ATEX certificate	PTB 99 ATEX 2219 X	
ATEX marking	Ex II 1D Ex ia IIIC T135°C Da	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
IECEX certificate	IECEX PTB 11.0091X	
IECEX marking	Ex ia IIIC T135°C Da	
Standards	IEC 60079-0:2011 , IEC 60079-11:2011	
Effective internal capacitance	C_i	≤ 150 nF A cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 150 μH A cable length of 10 m is considered.
Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 34\text{ mW}$: 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 64\text{ mW}$: 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 52\text{ mA}$, $P_i = 169\text{ mW}$: 75 °C (167 °F) at $U_i = 16\text{ V}$, $I_i = 76\text{ mA}$, $P_i = 242\text{ mW}$: 54 °C (129.2 °F)	

Equipment protection level Mb

Type of protection	intrinsic safety	
Certificates		
Appropriate type	SC2-N0...	
IECEX certificate	IECEX PTB 11.0091X	
IECEX marking	Ex ia I Mb	
Standards	IEC 60079-0:2011 , IEC 60079-11:2011	
Effective internal capacitance	C_i	≤ 150 nF A cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 150 μH A cable length of 10 m is considered.
Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 34\text{ mW}$: 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 64\text{ mW}$: 100 °C (212 °F) at $U_i = 16\text{ V}$, $I_i = 52\text{ mA}$, $P_i = 169\text{ mW}$: 75 °C (167 °F) at $U_i = 16\text{ V}$, $I_i = 76\text{ mA}$, $P_i = 242\text{ mW}$: 54 °C (129.2 °F)	

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