





ELECTRO-MECHANICAL SAFETY SWITCHES

i110-PA223 | i110P ELECTRO-MECHANICAL SAFETY SWITCHES



Ordering information

Туре	Part no.
i110-PA223	6025105

Other models and accessories -> www.sick.com/i110P

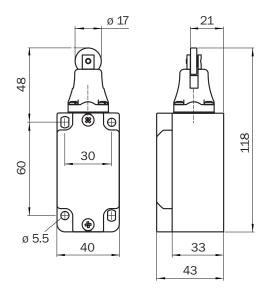
Detailed technical data

Biod parameter2 x 10 ⁶ switching cycles (with small load)Type2 x 10 ⁶ switching cycles (with small load)TypeType 1 (EN ISO 14119)Actuator coding levelUncoded (EN ISO 14119)Safe state in the event of a faultThe switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit.FunctionsSafe series connectionInterfacesNone, only individual wiring (with diagnostics)Connection typeCable gland, 1 x M20 ≤ 2.5 mm²	Features	
Actuation frequency2 11 NActuation frequency5 6,000 /hActuation directions4Approach speed0.1 m/min15 m/minPositive break travel0.1 m/min15 m/minPositive break travel0.1 m/min15 m/minBod parameters2 x10 ⁶ switching cycles (with small load)Type1 yo 1 (EN ISO 14119)Actuator coding levelNocoded (EN ISO 14119)Actuator coding levelNocoded (EN ISO 14119)Safe state in the event of a faultThe switch has no internal fault detection and is unable to assume a safe state in the event of a faultFunctionsSince internal fault detection and is unable to assume a safe state in the event of a faultFunctionsSince internal fault detection and is unable to assume a safe state in the event of a faultConductor cross setionNos only individual wring (with diagnostics)InterfacesSince internal fault detection and is unable to assume a safe state in the event of a faultConductor cross setionSole gland, 1 x M20Conductor cross setionsole gland, 1 x M20Conductor cross setionSince internal fault detection and is unable to assume a safe state in the event of a faultStotching principleSince internal fault detection and is unable to assume a safe state in the event of a faultConductor cross setionSince internal fault detection and is unable to assume a safe state in the event of a faultStotching principleConductor cross setionConductor cross setionSince internal fault detection and is unable to assume a safe state in the event of a faultS	Number of positive action N/C contacts	2
Actuation frequency \$ 6,000 /h Actuation directions 4 Approach speed 0.1 m/min15 m/min Positive break travel 4 mm Bod parameters 2x10 ⁶ switching cycles (with small load) Stactuation directions 2x10 ⁶ switching cycles (with small load) Type 2x10 ⁶ switching cycles (with small load) Actuator coding level Uncoded (EN ISO 14119) Actuator coding level Inservice has no internal fault detection and is unable to assume a safe state in the event of a fault Stafe state in the event of a fault The switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit. Functions Stafe state in the event of a fault Stafe state in the event of a fault None, only individual wiring (with diagnostics) Functions Stafe stafe sconnection Stafe state in the event of a fault Sole gland, 1 x M20 Conductor cross-section Sole action switching element Electrical data Stafe sconnection Usage category Costop Cotogar, 5-1) Gated operating current (voltage) Sio (24 V VC) Si (Number of N/O contacts	2
Actuation directions4Actuation directions9Approach speed0.1 m/min 15 m/minPositive break travel4 mmPositive break travel4 mmSafety-related parameters2 x10 ⁶ switching cycles (with small load)Broad parameter0 incoded (EN ISO 14119)Actuator coding level0 incoded (EN ISO 14119)Actuator coding level0 incoded (EN ISO 14119)Safe state in the event of a faulta beswitch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit.FunctionsSole gland, 1 x M20Connection typeCable gland, 1 x M20Conductor cross-sectionSole sciences/InterventionElectrical dataSole sciences/InterventionSwitching principleSole sciences/InterventionSwitching principleSole sciences/InterventionUsage categoryA (240 VAC) 3 (240 VAC)<	Actuation force	≥ 11 N
Approach speed0.1 m/min15 m/minPacitive break travel0.1 m/min15 m/minPacitive break travel4 maBade parameters2 x10 ⁶ switching cycles (with small load)Bade parameter2 x10 ⁶ switching cycles (with small load)Type100 (EN ISO 14119)Actuator coding level0 roced (EN ISO 14119)Safe state in the event of a faulta teswitch has no internal fault detection and is unable to assume a safe state in the event of a faultFunctionsIntervalue detection is performed by the connected safety-related logic unit.FunctionsSole only individual wiring (with diagnostics)FunctionsSole only individual wiring (with diagnostics)Concerton typeConductor cross-eneetConductor cross-eneetSole only individual generationExtertional textSole only individual generationSwitching principleSole constructing lementUsage categoryAction Sole Conductor SoleRated operating current (voltage)Sole Conductor SoleRated insultation voltage LSole V	Actuation frequency	≤ 6,000 /h
Positive break travel 4 mm Base break travel 4 mm Base break travel 2 x 10 ⁶ switching cycles (with small load) Base break travel 2 x 10 ⁶ switching cycles (with small load) Type 2 x 10 ⁶ switching cycles (with small load) Actuator coding level Uncoded (EN ISO 14119) Safe state in the event of a fault The switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit. Functions The switch has no internal fault detection and is unable to assume a safe state in the event of a fault. So internal fault detection is performed by the connected safety-related logic unit. Functions The switch has no internal fault detection and is unable to assume a safe state in the event of a fault. So internal fault detection is performed by the connected safety-related logic unit. Functions So internal fault detection is performed by the connected safety related logic unit. Functions So internal fault detection is performed by the connected safety related logic unit. Functions So internal fault detection is performed by the connected safety related logic unit. Functions So internal fault detection is performed by the connected safety related by a safe safe safe safe safe safe safe sa	Actuation directions	4
Safety-related parameters Biod parameter 2 x10 ⁶ switching cycles (with small load) Type 2 x10 ⁶ switching cycles (with small load) Type 3 x10 ⁶ switching cycles (with small load) Type 3 x10 ⁶ switching cycles (with small load) Type 3 x10 ⁶ switching cycles (with small load) Actuator coding level 3 x10 ⁶ switching cycles (with small load) Actuator coding level 3 x10 ⁶ switching cycles (with small load) Safe state in the event of a fault 3 load (EN ISO 14119) The switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit. Functions F	Approach speed	0.1 m/min 15 m/min
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TypeType 1 (EN ISO 14119)Actuator coding levelUncoded (EN ISO 14119)Actuator coding levelUncoded (EN ISO 14119)Safe state in the event of a faultThe switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit.FunctionsNone, only individual wiring (with diagnostics)FunctionsConductor cross-sectionInterfacesConductor cross-sectionElectrical dataSolw action switching elementSwitching principleSlow action switching elementUsage categoryAc15/DC-13 (IEC 60947-5-1)Rated operating current (voltage)Sol VConductor bulkSol V	Safety-related parameters	
Actuator coding levelUncoded (EN ISO 14119)Safe state in the event of a faultThe switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit.FunctionsFunctionsSafe series connectionNone, only individual wiring (with diagnostics)InterfacesConnection typeCable gland, 1 x M20 ≤ 2.5 mm²Conductor cross-sectionSlow action switching elementElectrical dataSwitching principleSlow action switching elementUsage categoryAc.15/DC-13 (IEC 60947-5-1)Rated operating current (voltage)3A (240 VAC) 3 A(240 VAC) 3 A (24 V DC)Rated insulation voltage Ui250 V	B _{10d} parameter	2×10^6 switching cycles (with small load)
Safe state in the event of a fault The switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit. Functions Safe series connection None, only individual wiring (with diagnostics) Interfaces Connection type Cable gland, 1 x M20 Conductor cross-section 2.5 mm² Electrical data Sow action switching element Switching principle Slow action switching element Usage category Ac15/DC-13 (IEC 60947-5-1) Rated operating curve to, 3.4 (240 VAC) 3.4 (24 V DC) Sub consultation voltage U ₁ Slow	Туре	Type 1 (EN ISO 14119)
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Safe series connectionNone, only individual wiring (with diagnostics)InterfacesConnection typeCable gland, 1 x M20Conductor cross-section2.5 mm²Electrical dataSilva action switching elementSwitching principleSlow action switching elementUsage categoryAc 15/DC-13 (IEC 60947-5-1)Rated operating current (voltage)3A (240 V AC) 3A (244 V DC)Rated insulation voltage UiSto V	Safe state in the event of a fault	
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Connection typeCable gland, 1 x M20Conductor cross-section≤ 2.5 mm²Electrical dataElectrical dataSwitching principleSlow action switching elementUsage categoryAC-15/DC-13 (IEC 60947-5-1)Rated operating current (voltage)3A (240 V AC) 3A (244 V DC)Rated insulation voltage Ui250 V	Safe series connection	None, only individual wiring (with diagnostics)
Conductor cross-section\$ 2.5 mm²Electrical dataSwitching principleSlow action switching elementUsage categoryAC15/DC-13 (IEC 60947-5-1)Rated operating current (voltage)3A (240 VAC) a (240 VAC) a (240 VAC)Rated insulation voltage Ui50 V	Interfaces	
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Switching principleSlow action switching elementUsage categoryAC-15/DC-13 (IEC 60947-5-1)Rated operating current (voltage)3A (240 V AC) 3A (24 V DC)Rated insulation voltage Ui250 V	Conductor cross-section	≤ 2.5 mm²
Usage categoryAC-15/DC-13 (IEC 60947-5-1)Rated operating current (voltage)3 A (240 V AC) 3 A (24 V DC)Rated insulation voltage Ui250 V	Electrical data	
Rated operating current (voltage) 3 A (240 V AC) 3 A (24 V DC) Rated insulation voltage U _i 250 V	Switching principle	Slow action switching element
Rated insulation voltage U _i 3 A (24 V DC)	Usage category	AC-15/DC-13 (IEC 60947-5-1)
	Rated operating current (voltage)	
Rated impulse withstand voltage U _{imp} 2,500 V AC	Rated insulation voltage U _i	250 V
	Rated impulse withstand voltage $\mathbf{U}_{\mathrm{imp}}$	2,500 V AC
Short-circuit protection F15	Short-circuit protection	F15

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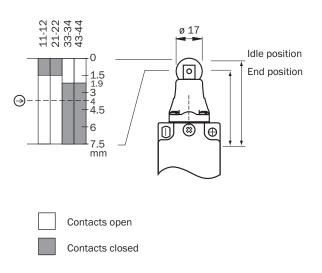
Switching voltage≥ 5 V DCSwitching current (switching voltage)≥ 5 mA (5 V DC)Mechanical data0.43 kgWeight0.43 kgHousing materialZinc diecastSurface treatmentVarnishedMechanical life10 x 10 ⁶ switching cyclesAmbient dataIP66 (IEC 60529)	
Weight 0.43 kg Housing material Zinc diecast Surface treatment Varnished Mechanical life 10 x 10 ⁶ switching cycles	
Weight0.43 kgHousing materialZinc diecastSurface treatmentVarnishedMechanical life10 x 10 ⁶ switching cycles	
Housing materialZinc diecastSurface treatmentVarnishedMechanical life10 x 10 ⁶ switching cyclesAmbient data	
Surface treatment Varnished Mechanical life 10 x 10 ⁶ switching cycles Ambient data	
Mechanical life 10 x 10 ⁶ switching cycles Ambient data	
Ambient data	
Enclosure rating IP66 (IEC 60529)	
Ambient operating temperature -25 °C +80 °C	
Storage temperature -25 °C +80 °C	
Vibration resistance 10 Hz 5 Hz, 0.35 mm (IEC 68-2-6)	
Classifications	
eCl@ss 5.0 27272601	
eCl@ss 5.1.4 27272601	
eCl@ss 6.0 27272601	
eCl@ss 6.2 27272601	
eCl@ss 7.0 27272601	
eCl@ss 8.0 27272601	
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eCl@ss 9.0 27272601	
eCl@ss 10.0 27272601	
eCl@ss 11.0 27272601	
eCl@ss 12.0 27272601	
ETIM 5.0 EC001829	
ETIM 6.0 EC001829	
ETIM 7.0 EC001829	
ETIM 8.0 EC001829	
UNSPSC 16.0901 39122205	

Dimensional drawing (Dimensions in mm (inch))



Actuator travel diagram

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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.

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