







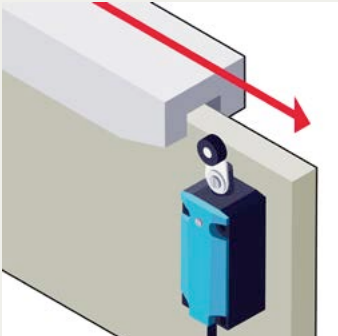
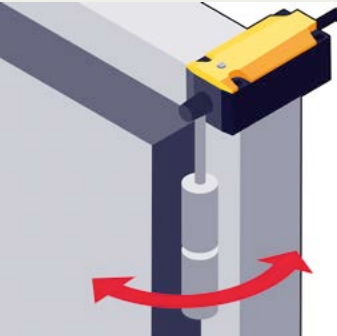
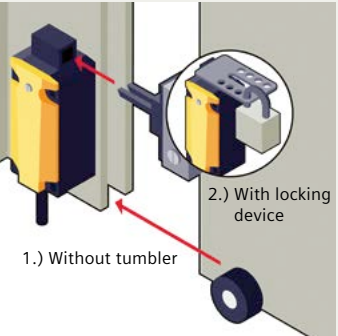
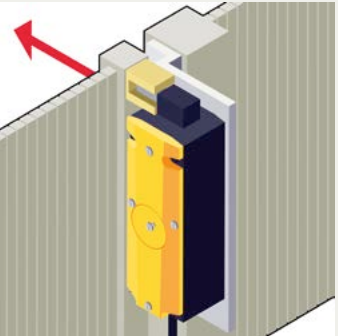
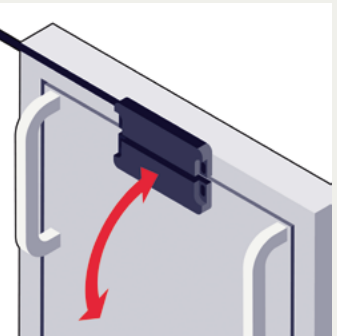
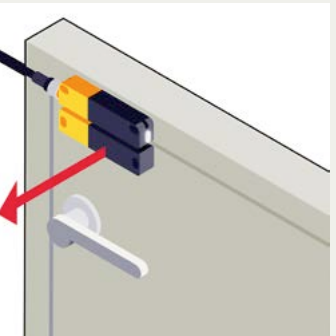
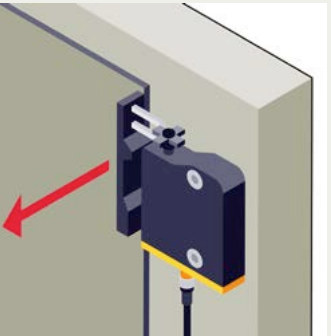


SIRIUS Position and Safety Switches

Detecting

	Mechanical position and safety switches		Safety switches with separate actuator		Non-contact safety switches		
	Standard/compact 3SE51/3SE52/3SE54 3SF1 AS-i variant		Safety hinge 3SE51/3SE52 3SF1 AS-i variant		without tumbler 3SE51/3SE52 3SF1 AS-i variant		with tumbler 3SE53 3SF1 AS-i variant
							
							
 Positive opening operation as per IEC 60947-5-1, positive drive, necessary in safety applications							
Design type	1		1		2		4
Tampering protection (Acc. to DIN EN ISO 14119, TÜV certificate)	low, actuator head uncoded		low, shaft uncoded		low, 3D-coded actuator		low, coded switching magnet
Maximum safety Safety Integrity Level SIL (IEC 62061/ IEC 61508)/Performance Level PL (ISO 13849-1)	Monitoring of 1 NO contact		Monitoring of 1 NO contact		Monitoring of 1 NO contact		Monitoring of 2 NO contacts or 1 NO and 1 NC contact
With 1x switch	SIL 1/PL c		SIL 1/PL c		SIL 1/PL c		SIL 3/PL e
With 2x switches (enabling individual switch combinations)	SIL 3/PL e		SIL 3/PL e		SIL 3/PL e		SIL 3/PL e
Application examples With the position and safety switches almost all requirements in the industry can be met. Various application examples e.g. for guard door monitoring can be found here: support.industry.siemens.com/cs/ww/en/ps/16403/ae							
							
	Position switch with twist lever: Detection of positions and end positions of moving machine and system parts, such as e.g. conveyor belts and assembly lines		Pivoting doors and flaps, with fixed positive connection between switch and door hinge, switching angle 10°		Roller door or position monitoring of grilles or doors 1.) Without tumbler 2.) With locking device		Additional interlocking requirement, e.g. in the working area of a robot system: Shutdown of machines requires closed safety doors with tumbler guarding
	Monitoring of maintenance flaps (hoods, doors, grilles), especially suitable for confined spaces		Monitoring of swing doors, flaps, hoods, grilles, vibration-proof and robust IP69, large switching interval		Interlocking requirement for rotating, laterally movable or removable safety guards IP69, with latching, optimized hygiene standard with simultaneous highest personnel and process protection		

Evaluating

SIMATIC ET 200SP	SIRIUS 3SK safety relays	SIMATIC controller	Application manual SIRIUS Safety Integrated	
				
siemens.com/et200sp	siemens.com/safety-relays	siemens.com/simatic-safety		
				For the U.S. published by Siemens Industry Inc. 100 Technology Drive Alpharetta, GA 30005, United States Article No. SIEP-Y10286-00-7600 © Siemens AG 2022 All rights reserved. Subject to changes and errors.
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