

## SICK Safety Switch Overview

SICK has 70 years' experience in machine safety and can provide you with customized solutions and services that deliver the expertise that is necessary to implement safety in your machines in compliance with directives.

In partnering with us, SICK is capable of making a contribution to the ongoing development of the safety culture in your organization with the aim of:

- ✓ Improving the safety of existing machines and systems
- ✓ Ensuring integral safety on new machines and systems

SICK has provided this Safety Switch Selection Guide to ease the ordering process and selection of safety switches for an effective solution.

**What are the common application types?** Guard monitoring and or guard locking, Including:

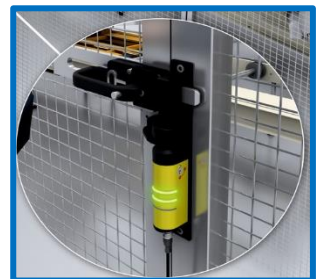
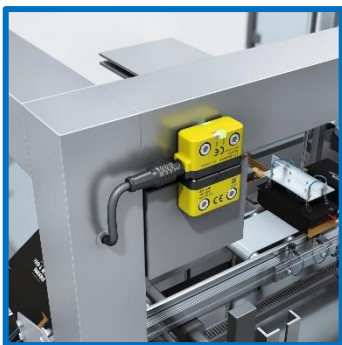
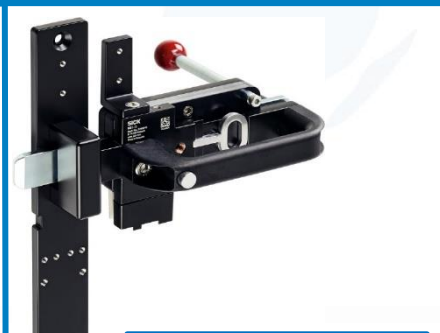
- ✓ Swing/Hinged doors
- ✓ Flaps
- ✓ Shields
- ✓ Other movable guards



### Guard Monitoring: STR1

### Guard Locking: flexLock & MLP1

### Door Solution: MB1



- ✓ Non-contact guard monitoring
- ✓ RFID technology for better performance and higher safety rating
- ✓ Increased machine availability due to high offset tolerance
- ✓ Economical and visible diagnostics

- ✓ High locking force for people protection (flexLock)
- ✓ Magnetic locking force for process protection (MLP1)
- ✓ Flexible mounting positions
- ✓ RFID-monitored guard locking for better performance and higher safety rating



- ✓ Complete door solution
- ✓ Extended sensor life due to mechanical protection of sensors
- ✓ Fault exclusion possible to reach higher performance level
- ✓ Universal P/N's for left and right hinged doors
- ✓ ANSI compliant locking mechanism

# Selecting an STR1




Use this step-by-step guide for selecting your STR1 components



1 Select the STR1						
Application Type	Standalone		Cascading w/T-connector		Cascading w/Flexi Loop	
Actuator size	Flat	Standard	Flat	Standard	Flat	Standard
Coding						
Universal	1069567	1072711	1069566	1073212	1069565	1073211
Unique	1069577	1073213	1069576	1069561	1069575	1069560
Permanent	1073208	1069562	1073207	1072710	1073206	1072709
	*3m flying leads connection		*M12x8pin pigtail connection		*M12x5pin pigtail connection	

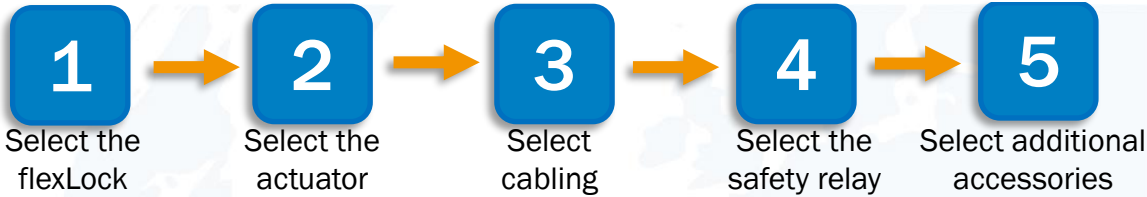
2 Select Cabling					
	Description	Figure	Length	Model Name	P/N
*Connecting cables for cascading not shown. Use <a href="#">link</a> for more options.	M12x5pin female to flying leads		2 m	YF2A15-020UB5XLEAX	2095617
			5 m	YF2A15-050UB5XLEAX	2095618
			10 m	YF2A15-100UB5XLEAX	2095619
			20 m	YF2A15-200UB5XLEAX	2095614
	M12x8pin female to flying leads		2 m	YF2A18-020UB5XLEAX	2095652
			5 m	YF2A18-050UB5XLEAX	2095653
			10 m	YF2A18-100UB5XLEAX	2095654
			20 m	YF2A18-200UB5XLEAX	2095680
				<a href="#">*Other options available</a>	

3 Select Safety Relay	
<p>RLY3-OSSD200 P/N 1085344</p> 	<a href="#">*Other options available</a>

4 Select Additional Accessories		
	<p>For T-connection: P/N 5339609</p> 	<p>P/N 1078201</p> 
	<p>For Flexi Loop: <a href="#">Click Here</a> to watch a short tutorial and/or contact your local application support.</p>	

# Selecting a flexLock

Use this step-by-step guide for selecting your flexLock components



## 1 Select the flexLock

Application Type	Locking for Personnel Safety				Locking for Process Protection			
Access	Full Body Access Possible (with escape release)		No Full Body Access (without escape release)		Operation with door closed (not locked) allowed		Operation not allowed when door is not locked	
Coding Level	High	Low	High	Low	High	Low	High	Low
OSSD Behavior								
Locking Monitoring	1120827	1120828	1101320	1101321	—	—	1101322	1101323
Actuator Monitoring	—	—	—	—	1101324	1101325	—	—

## 2 Select Actuator



P/N 1101326  
Flexible Actuator – meant to be inserted with the front part of the actuator tongue



P/N 1101327  
Rigid Actuator – can be inserted from the front or the side



## 3 Select Cabling

\*Connecting cables for cascading not shown. Use [link](#) for more options.

Description	Figure	Length	Model Name	P/N
M12x8pin female to flying leads		5 m	YF2A18-050UB5XLEAX	2095653
		10 m	YF2A18-100UB5XLEAX	2095654
		20 m	YF2A18-200UB5XLEAX	2095680

## 4 Select Safety Relay

RLY3-OSSD200 P/N 1085344



[\\*Other options available](#)

## 5 Select Additional Accessories

For T-connection:  
P/N 5339609



P/N 1078201



For Flexi Loop:  
[Click Here](#) to watch a short tutorial and/or contact your local application support.

# Selecting an MLP1

Use this step-by-step guide for selecting your MLP1 components



**1**

BOM guide for MLP1

**2**

Select cabling



**3**

Select the safety relay

## 1 BOM Guide for MLP1

Application Type	Standalone	Cascading w/T-connector	Direct Cascading	Cascading w/Flexi Loop
MLP1 P/N	 P/N 1077943	 P/N 1080321	 P/N 1077942	 P/N 1080321
Connection Type	M12x5pin	M12x8pin	M12x5pin	M12x8pin
Accessories		 P/N 5339609 + 1078201	 P/N 1078201	 See tutorial

## 2 Select Cabling

Description	Figure	Length	Model Name	P/N
M12x5pin female to flying leads		2 m	YF2A15-020UB5XLEAX	2095617
		5 m	YF2A15-050UB5XLEAX	2095618
		10 m	YF2A15-100UB5XLEAX	2095619
		20 m	YF2A15-200UB5XLEAX	2095614
M12x8pin female to flying leads		2 m	YF2A18-020UB5XLEAX	2095652
		5 m	YF2A18-050UB5XLEAX	2095653
		10 m	YF2A18-100UB5XLEAX	2095654
		20 m	YF2A18-200UB5XLEAX	2095680

\*Connecting cables for cascading not shown. Use [link](#) for more options.

## 3 Select Safety Relay

RLY3-OSSD200 P/N 1085344



[\\*Other options available](#)

# Selecting an MB1

Use this step-by-step guide for selecting your MB1 components



BOM guide for MB1

## 1 BOM Guide for MB1

