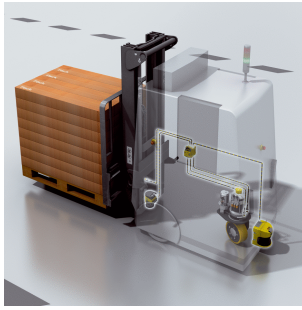


## Safe AGV Forklift

Protecting automated guided forklift vehicles - efficient and future-proof

**SICK**  
Sensor Intelligence.



## Technical data overview

<b>Safety task</b>	Safe Motion Control
<b>Application</b>	Mobile hazardous area protection on automated guided vehicles
<b>Safety level</b>	PL d

## Product description

Safe AGV Forklift is the efficient safety solution for automated guided vehicles (AGVs) with lifting forks. Installation on automated lifting fork vehicles with a drive wheel is easy. The speed and direction-independent protective field switching of the safety laser scanner prevents stops and is gentle on wear and tear parts. Previous solutions prevent automated loading and unloading compliant with standards because the protective field of the laser scanner was violated by the lifting fork. Thanks to the use of the safety encoders, the vehicle can continue to move with the lifting fork lowered at a safely reduced speed. This increases productivity and enables fully-automated and safe operation of AGVs with lifting forks.

## At a glance

- Proven combination of reliable SICK safety components
- Easy configuration with function blocks
- Reliable evaluation of the current vehicle speed
- Integration into all common fieldbuses (optional)
- Reliable field switching during cornering

## Your benefits

- Increased productivity by driving at a safe speed with the lifting fork lowered
- Fully-automated yet completely safe operation of AGVs with lifting forks
- Tested SICK solution consisting of hardware, software and integration aids for easy installation, commissioning and maintenance
- Reliable safety in line with current and future standards
- Protective field switching regardless of speed prevents stops and protects wear and tear parts
- Proven SICK safety technology for maximum reliability and availability – even under difficult conditions

## Fields of application

- Protection of automatic guided vehicles with a lifting fork and drive wheel

Ordering information

Other models and accessories → [www.sick.com/Safe\\_AGV\\_Forklift](http://www.sick.com/Safe_AGV_Forklift)

Encoder: me- chanical design	Shaft diameter	Encoder shaft: length	Items supplied	Type	Part no.
-	-	-	1 S3000 Remote safety laser scanner, 1 S300 Mini Remote safety laser scanner, 3 IN3000 Direct non-contact safety switches, 1 Flexi Soft main module FX3-CPU2, 1 Flexi Soft system plug FX3-MPL1, 1 Flexi Soft I/O module FX3-XTIO, 1 Flexi Soft I/O module FX3-XTDI, 1 Flexi Soft motion control module FX3-MOCO	SAPPB0D-14A0030	1087492
Solid shaft, Servo flange	6 mm	10 mm	1 DFS60S Pro safety encoder, 1 S3000 Remote safety laser scanner, 1 S300 Mini Remote safety laser scanner, 3 IN3000 Direct non-contact safety switches, 1 Flexi Soft main module FX3-CPU2, 1 Flexi Soft system plug FX3-MPL1, 1 Flexi Soft I/O module FX3-XTIO, 1 Flexi Soft I/O module FX3-XTDI, 1 Flexi Soft motion control module FX3-MOCO	SAPPB0D-14A0021	1087180
Solid shaft, face mount flange	10 mm	19 mm	1 DFS60S Pro safety encoder, 1 S3000 Remote safety laser scanner, 1 S300 Mini Remote safety laser scanner, 3 IN3000 Direct non-contact safety switches, 1 Flexi Soft main module FX3-CPU2, 1 Flexi Soft system plug FX3-MPL1, 1 Flexi Soft I/O module FX3-XTIO, 1 Flexi Soft I/O module FX3-XTDI, 1 Flexi Soft motion control module FX3-MOCO	SAPPB0D-14A0022	1087181

Encoder: mechanical design	Shaft diameter	Encoder shaft: length	Items supplied	Type	Part no.
Blind hollow shaft with feather key groove	10 mm	-	1 DFS60S Pro safety encoder, 1 S3000 Remote safety laser scanner, 1 S300 Mini Remote safety laser scanner, 3 IN3000 Direct non-contact safety switches, 1 Flexi Soft main module FX3-CPU2, 1 Flexi Soft system plug FX3-MPL1, 1 Flexi Soft I/O module FX3-XTIO, 1 Flexi Soft I/O module FX3-XTDI, 1 Flexi Soft motion control module FX3-MOCO	SAPPB0D-14A0020	1087179
	12 mm	-		SAPPB0D-14A0027	1087186
	14 mm	-		SAPPB0D-14A0028	1087187
Solid shaft with key, Servo flange	6 mm	10 mm	1 DFS60S Pro safety encoder, 1 S3000 Remote safety laser scanner, 1 S300 Mini Remote safety laser scanner, 3 IN3000 Direct non-contact safety switches, 1 Flexi Soft main module FX3-CPU2, 1 Flexi Soft system plug FX3-MPL1, 1 Flexi Soft I/O module FX3-XTIO, 1 Flexi Soft I/O module FX3-XTDI, 1 Flexi Soft motion control module FX3-MOCO	SAPPB0D-14A0023	1087182
Solid shaft with key, face mount flange	10 mm	19 mm	1 DFS60S Pro safety encoder, 1 S3000 Remote safety laser scanner, 1 S300 Mini Remote safety laser scanner, 3 IN3000 Direct non-contact safety switches, 1 Flexi Soft main module FX3-CPU2, 1 Flexi Soft system plug FX3-MPL1, 1 Flexi Soft I/O module FX3-XTIO, 1 Flexi Soft I/O module FX3-XTDI, 1 Flexi Soft motion control module FX3-MOCO	SAPPB0D-14A0019	1087178
Through hollow shaft with feather key groove	10 mm	-	1 DFS60S Pro safety encoder, 1 S3000 Remote safety laser scanner, 1 S300 Mini Remote safety laser scanner, 3 IN3000 Direct non-contact safety switches, 1 Flexi Soft main module FX3-CPU2, 1 Flexi Soft system plug FX3-MPL1, 1 Flexi Soft I/O module FX3-XTIO, 1 Flexi Soft I/O module FX3-XTDI, 1 Flexi Soft motion control module FX3-MOCO	SAPPB0D-14A0024	1087183
	12 mm	-		SAPPB0D-14A0025	1087184
	14 mm	-		SAPPB0D-14A0026	1087185
	5/8"	-		SAPPB0D-14A0029	1087188

## 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.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)