SIEMENS

World Premiere: Modularly Expandable Safety Monitors

Realization of safety functions via AS-Interface: Easy, flexible, efficient

SIRIUS 3RK3 Modular Safety System

Siemens safety monitors are central components of safety-related applications on the basis of ASIsafe and represent an established product range on the market. With the new Advanced and ASIsafe central modules of the SIRIUS 3RK3 Modular Safety System (MSS), the consistent advancement of this technology has now reached a further milestone. Comparable with the safety monitors, the Modular Safety System detects safe sensors on the AS-i bus and disconnects actuators in a safety-related manner via parameterizable safety logics.

In addition to our current safety monitors, the three new central modules of the MSS amongst others offer higher quantity structures, extended functionality and optional expandability of the integrated safe inputs and outputs via the internal safety bus by means of modules.

Moreover, the central modules' diagnostics and state data can be transferred to a superior PROFIBUS network via a DP interface module. Furthermore, the central modules can be easily and comfortably parameterized and diagnosed with the MSS ES software.

Advantages at a glance

Easy

- Modular and scalable safety system, 2 to 50 independent enabling circuits (two-channel)
- Graphical parameterization of safe logics with MSS ES parameterization software – via drag & drop

Flexible

- Expandability to up to 38 two-channel, fail-safe central outputs by means of expansion modules
- In addition: Distributed control or shutdown of up to 12 independent fail-safe disconnection groups via ASIsafe
- Optional plug-in connection of up to 9 expansion modules for standard and fail-safe I/Os – optionally with electronic or relay-based (fail-safe) outputs

Efficient

- Fail-safe data exchange between multiple MSS units via ASIsafe
- Up to 8 safety-related inputs on the central module, e.g. for central EMERGENCY-STOP
- 2 safety-related outputs on the central module
- Memory module for device parameters
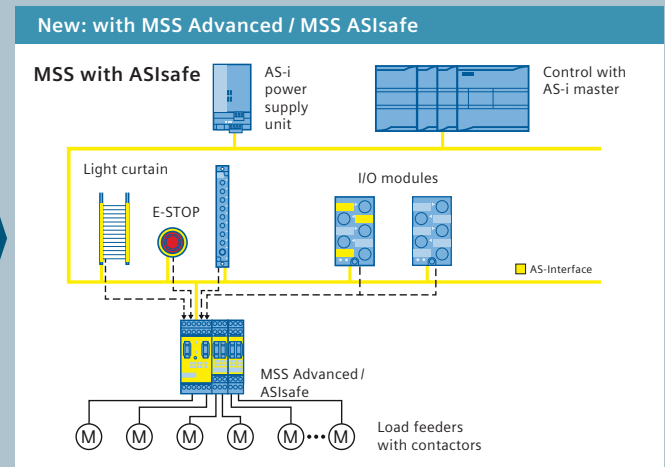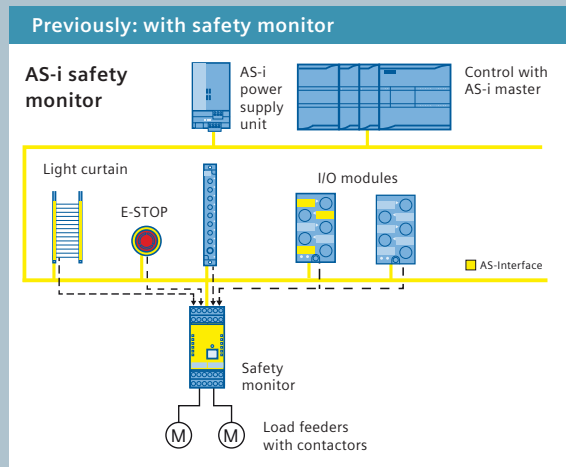- Prefabricated function blocks (e.g. muting or protective door with interlocking) now also for use on AS-i

siemens.com/sirius-mss

SIRIUS 3RK3 MSS – clear advantages

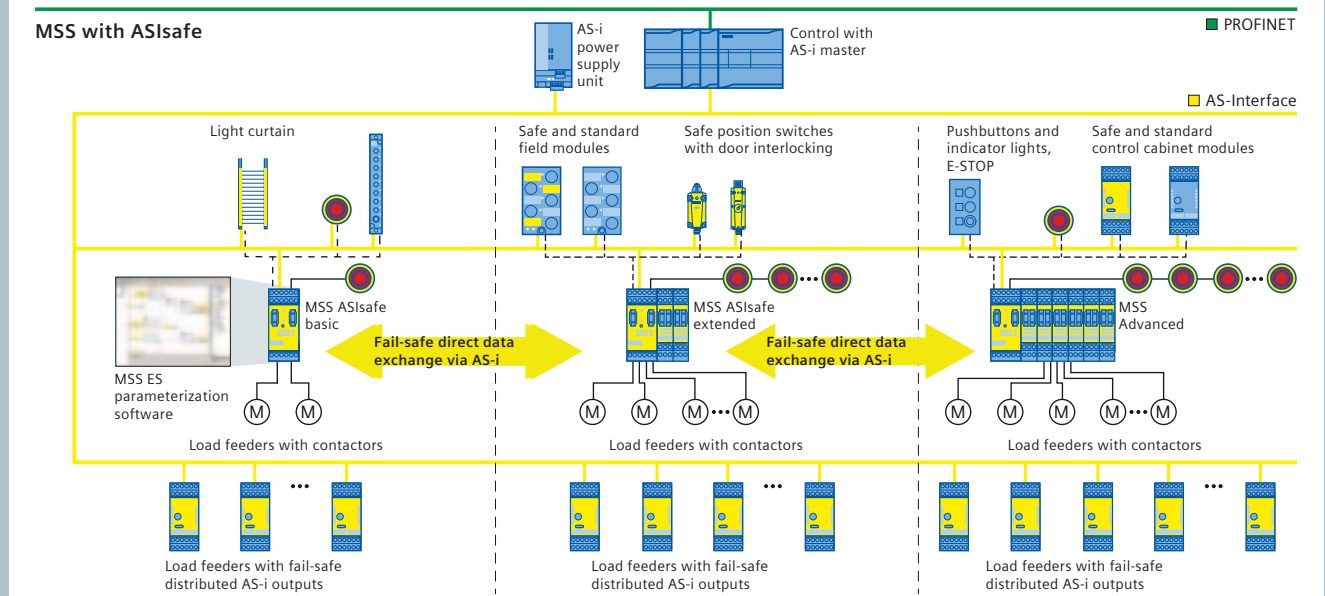- **Space savings and extended functional scope**
  A second safety monitor is no longer required for a larger number of safe outputs. The extended functionality can be simply realized by means of additional expansion modules. This saves space, costs and resources on the AS-i bus.

- **Comfortable parameterization – via MSS software**
  Data can be directly processed during fail-safe data exchange between multiple Modular Safety Systems – without any required additional wiring or parameterization.

Previously: with safety monitor

AS-i safety monitor

- AS-i power supply unit
- Control with AS-i master
- Light curtain
- E-STOP
- I/O modules
- AS-Interface
- Safety monitor
- Load feeders with contactors

New: with MSS Advanced / MSS ASIsafe

MSS with ASIsafe

- AS-i power supply unit
- Control with AS-i master
- Light curtain
- E-STOP
- I/O modules
- AS-Interface
- MSS Advanced / ASIsafe
- Load feeders with contactors

Safety technology with MSS and clever AS-Interface standard

MSS with ASIsafe

- PROFINET
- AS-i power supply unit
- Control with AS-i master
- AS-Interface
- Light curtain
- Safe and standard field modules
- Safe position switches with door interlocking
- Pushbuttons and indicator lights, E-STOP
- Safe and standard control cabinet modules
- MSS ES parameterization software
- MSS ASIsafe basic
- MSS ASIsafe extended
- MSS Advanced
- Fail-safe direct data exchange via AS-i
- Load feeders with contactors
- Load feeders with fail-safe distributed AS-i outputs

Selection and ordering data	MSS ASIsafe basic	MSS ASIsafe extended	MSS Advanced
No. of indep. 2-chn. enabling circuits	2 to 10	2 to 20	2 to 50
Inputs	1/2 F-DI and 6 DI	2/4 F-DI and 4 DI (expandable)	4/8 F-DI (expandable)
Outputs	1 F-DO and 1 F-RO	1 F-DO and 1 F-RO (expandable)	
Expandability	–	Up to 2 expansion modules	Up to 9 expansion modules
	PROFIBUS DP interface and diagnostics module		
ASIsafe	Up to 8 safe AS-i outputs	Up to 10 safe AS-i outputs	Up to 12 safe AS-i outputs
	Up to 31 safe AS-i inputs		
Order numbers	3RK3121-1AC00 3RK3121-2AC00	3RK3122-1AC00 3RK3122-2AC00	3RK3131-1AC10 3RK3131-2AC10

Further information on AS-Interface: **siemens.com/as-interface,** on Safety Integrated: **siemens.com/safety-integrated**