

FACTORY AUTOMATION



SAFE MODULE

WITH 2 INPUTS AND OUTPUTS



AS-INTERFACE

SAFETY AT WORK

The concept

AS-Interface has proved to be a cost-effective and robust system for networking sensors and actuators on the lowest level.

Now the new safety concept "AS-Interface Safety at Work" makes it possible to directly integrate safety-related components such as Emergency-Off switches, mechanical contacts or complex devices such as safety light grids. Two additional components – a safety monitor and safe slaves – allow for transfer of safe data together with non-safe data on a single AS-Interface cable. This makes it possible to implement applications up to Category 4 in accordance with EN 954-1 or SIL3 in accordance with IEC 61508.

The advantages

Because multiple safety monitors can be operated on a single AS-i network, it is possible to work with a grouped formation of safe signals. The master and control unit remain unchanged, and no safety PLC is necessary. Safety at Work is fully compatible with all existing AS-Interface components. This means that the safety function can be added to already existing systems. AS-Interface Safety at Work is certified by TÜV and BIA to be safe and reliable. Thus, all safety functions up through safety category 4 in accordance with EN 954-1 can be implemented.

Simple, direct control of 360° visible lights

2 safe inputs for mechanical contact

Display for input status

AS-Interface voltage display

Flat cable connection AS-Interface/auxiliary power

Diagnostics display of overload and communication

Auxiliary voltage display

Addressing socket





2 outputs, directly controllable via safe inputs

Display for output status



Safe module with 2 safe inputs and 2 outputs

Features of the safe module

- AS-Interface certified
- Approved by TÜV in accordance with EN 954-1 (IEC 61508 in progress)
- 2 safe inputs and 2 electronic outputs (PNP)
- Logical link of inputs and outputs directly in the safe module
- Externally supplied outputs up to 1 A per output or up to 2 A total current, suitable for lamp loads
- Connection of mechanical contacts, protected against over-voltage and short-circuit
- 1- or 2-channel connection for category 2 or 4
- Outputs galvanically separated from AS-Interface, protected against overload and short-circuit
- Sensor/actuator connection designed for plug-in (M12)
- Direct AS-Interface flat cable connection with penetration system
- Integrated addressing socket
- Protection type IP67
- Ambient temperature $-25\text{ °C} \dots +55\text{ °C}$

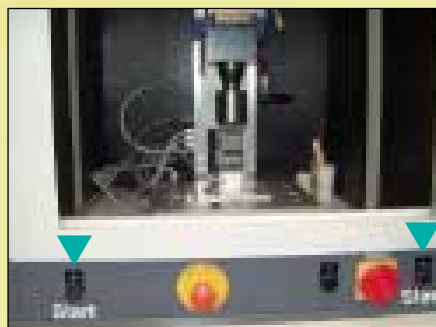
Safety category 4



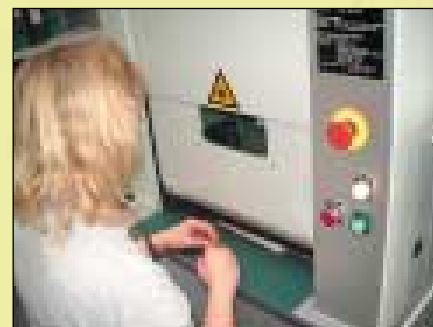
A FEW APPLICATIONS



Emergency-Off



Two-handed operation



Door monitoring

Product overview of AS-Interface Safety at work

Order Code	Description
VAS-1A-K12-U	Safety monitor designed with one two-channel release circuit
VAS-2A-K12-U	Safety monitor designed with two two-channel release circuits
VAS-1A-K12	Safety monitor designed with one two-channel release circuit, with extended logic functionality and RS flip-flop
VAS-2A-K12	Safety monitor designed with two two-channel release circuits, with extended logic functionality and RS flip-flop
VAA-2E-G4-SN	Safe module with two safe inputs, with cable gland, suitable for safe SN sensors and mechanical contacts
VAA-2E2A-G2-S/EA2	Safe module with two safe inputs and two standard outputs, logical links of inputs/outputs possible in the module, connection via M12 plug, suitable for mechanical contacts (for example for emergency off, door monitoring, two-handed operation, etc.)
VAZ-SW-SIMON	Parameter-assignment software for the safety monitor incl. PC connection cable (VAZ-SIMON-R2)
VAA-2E-F85-V1	Emergency off switch with integrated AS-Interface chip, two NCs, tamper proof
Additional	Safety light barriers, safety light grids, safety light curtains, intrinsically safe sensors, etc. on request



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