



AS-i Safety at Work field module.



Safe signal detection using 2 OSSD inputs.

- ▲ Device connection via M12 sockets or cage clamps.
- ▲ Module with standardised EMS interface for AS-i and 24 V.
- ▲ Certification to EN 954-1, category 4 and IEC 61508, SIL3.
- ▲ For connection of an electro-sensitive protective equipment (ESPE) type 4 to EN 61496-1.

Safety at Work



Utmost security

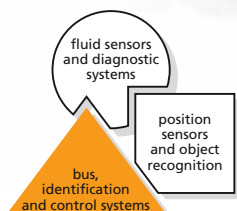
The new Universal Safety at Work module enables connection of electro-sensitive protective equipment (ESPE) to the AS-interface. Evaluation to the Safety at Work protocol is carried out with one of the four available AS-i safety monitors.

The safe data transmission on the AS-i bus has already been approved by TÜV and BIA. It is suitable for signal transmission up to the highest category 4 to EN 954-1.

Powerful LEDs on the front panel indicate switching states of the inputs and outputs, voltage supply and faults in the module, if any.



Connection of a light curtain to a safe input module



The safe module of the Universal series has two safety-related OSSD inputs. An output of a two-channel electro-sensitive protective equipment (ESPE) to EN 61496-1 can be connected.

The two outputs of the protective equipment must be monitored for cross faults.

Advantages and customer benefits

• **Diagnosis and self-test**

The safe Universal module carries out a periodic internal self-test after power on. This is transferred as safe state to the master (triggered = code sequence "0000"). After start up and successful function test the Safety at Work protocol is started. The two safe inputs are now ready for operation.

During operation the module is permanently monitored, with build-in redundancy.

• **The Safety at Work system**

In principle, the AS-i safety technology consists of two components:

1. A safe input slave for connection of fail-safe sensors.
2. The safety monitor as monitoring device with forced relays for a safe switch-off of the drives or actuators.

• **Addressing**

Addressing is done either before installation via the adapter integrated into the addressing unit or after installation via the addressing socket of the module lower part using an addressing cable.

Addressing via the **controller_e** from ifm electronic is even more convenient. The large graphic display gives the user an optimum overview.



Application

The safe AS-i Universal module can be used in a wide range of different applications. It is suitable where decentralised I/Os, modular design and simplicity of the system are important and a high protection rating against environmental influence is required at the same time.



Technical data

Safe AS-i input module AC007S		
Operating voltage (AS-i)	[V DC]	24
Total current consumption (AS-i)	[mA]	≤ 50
Safe inputs	pcs.	2
Sensor supply inputs	[V DC]	ext. 24 PELV
Current rating input	[A]	2
AS-i profile		S-0.B.E
AS-i specification		2.11 + 3.0
Extended addressing mode		-
Operating temperature	[°C]	-25...55
Protection rating		IP 67
Dimensions (H x W x D)	[mm]	110 x 45 x 51

Products

Type	Description	Order no.
Safe AS-i input module		
	2 OSSD inputs	AC007S
Fail-safe inductive sensors		
	(2 x OSSD) Enable zone: 10...15 mm	GM701S
	(2 x OSSD) Enable zone: 4...20 mm	GM705S

Accessories

Type	Description	Order no.
	Flat cable lower part, yellow/black	AC5003
	AS-i addressing unit	AC1144