

AS-i 3.0 PROFINET Gateways with integrated Safety Monitor

2 Master, PROFINET Slave

1 Safety Monitor for 2 AS-i networks

- Operation using a single Monitor configuration!
Monitor processes safety slaves on two AS-i networks
Coupling between the two networks superfluous



ASMM-2M-PN-RRSS

Up to 32 release circuits

- 4 / 2 CAT4, SIL 3 safe output circuits on the Monitor
two sets of safe relays, two sets of fast electronic safe outputs resp.,
two sets of safe relays

Safe AS-i outputs are supported

- up to 32 independent AS-i outputs
Multiple safe AS-i outputs possible via a single AS-i address

Monitor configuration can be, arbitrarily" large

- 256 configuration blocks (previously 48)
Identical reaction time due to artificial limitation to 256 configuration blocks

Applications up to category 4/PLe/SIL 3

Chip card for storage of configuration data



Article Nr.	ASMM-2M-PN-RRSS
Interfaces	
PROFINET interface	2 x RJ-45, 2 port-switch
Conformance Class	B
Baud rates	10/100 MBaud
AS-i	
Cycle time	150 µs * (number of slaves + 2)
Operating voltage	AS-i voltage 30V DC
Safety Monitor	
Release circuits	16
Start delay	< 10 ms
Max. turn-off time	< 40 ms
Inputs: 4 x EDM/Start	EDM: inputs to monitor external devices Start: Start inputs switching current statical 4mA at 24V, dynamic 30mA at 24V (T=100 µs)
Outputs: 4 x output switching elements	relay outputs (output circuits 1 and 2) max. contact load: 3A AC-15 at 30V, 3A DC-13 at 30V semiconductor outputs (output circuits 3 and 4) max. contact load: 0,5A DC-13 at 30V
Card slot	chip card for storage of configuration data
Display	
LCD	indication of slave addresses and error messages in plaintext
LED power	power on
LED PROFINET	PROFINET master recognized
LED config error	configuration error
LED U AS-i	AS-i voltage OK
LED AS-i active	AS-i normal operation active
LED prg enable	automatic addresses programming enabled

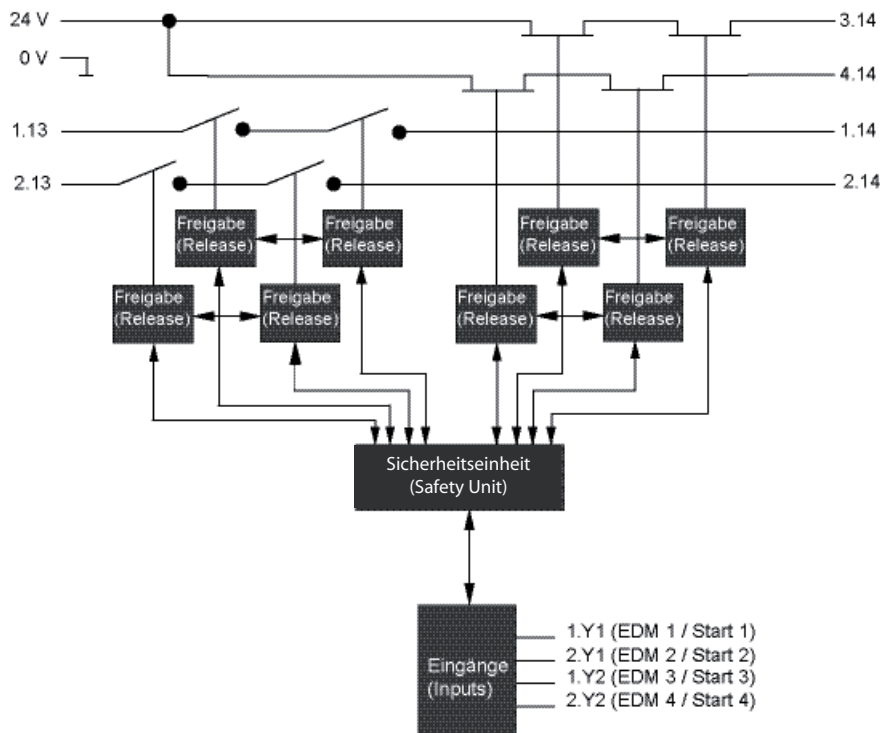
Article Nr.	ASMM-2M-PN-RRSS
LED prj mode	configuration mode active
LED AUX	auxiliary power
4 x LED EDM/Start	state of inputs: LED off: open LED on: closed
4 x LED output circuit	state of outputs: LED off: open LED on: closed
UL-specifications (UL508)	
External protection	an isolated source with a secondary open circuit voltage of $\leq 30V_{DC}$ with a 3A maximum over current protection. Over current protection is not required when a Class 2 source is employed.
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices.
Standards	EN 61 000-6-2 EN 61 000-6-4 EN 62 061:2005, SILCL 3 EN 61 508:2010, SIL 3 EN ISO 13 849-1:2008, Performance-Level e
Ambiente	
Ambient operating temperature	0°C ... +55°C
Storage temperature	-25°C ... +85°C
Housing	Stainless Steel
Protection category IEC 60 529	IP20
Tolerable loading referring to impacts and vibrations	according to EN 61 131-2
Voltage of insulation	$\geq 500V$
Dimensions (L / W / H in mm)	120 / 100 / 96
Weight	800 g

Article No.	Diagnostic interface	AS-i Safety outputs are supported	Number of AS-i circuits Safety Monitor	Max. number of release circuits	Number of release circuits in device	Configuration blocks	Number of AS-i masters
ASMM-2M-PN-RRSS	RS 232 + Ethernet*	yes	2	32	4 release circuits SIL 3, cat. 4 in device; 2 x relays, 2 x fast electronic safe outputs	256 devices + SafeLink via PROFINET	2 AS-i Masters with integrated power supply decoupling

* ASIMON, AS-i Control Tools via RS-232 and Ethernet (RJ-45 PROFINET-interface)

Operating current			
Article No.	master power supply, max. 300mA out of AS-i circuit 1 (approx. 70mA ... 300mA), max. 300mA out of AS-i circuit 2 (approx. 70mA ... 300mA); in sum max. 370mA	Version „1 gateway, 1 power supply for 2 AS-i networks“ approx. 250mA (PELV Spannung)	master power supply, approx 300mA out of AS-i network
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Safety Monitor block diagram



Connections: Gateway + Safety Monitor

ASMM-2M-PN-RRSS

