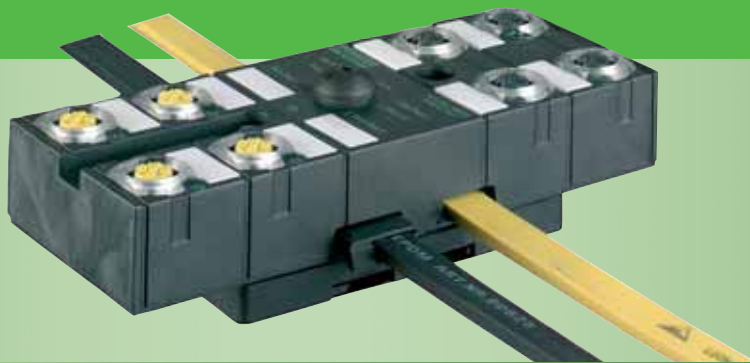


| **AS-Interface System**
from IP00...IP68/69K



| Variety

| Modular

| Flexible



AS-INTERFACE

Decentralized installation

THE WIDE WORLD OF THE AS-INTERFACE SYSTEM

Application areas



- Assembly and handling machines
- Packaging technology
- Storage and materials handling
- Paper manufacturing
- Mechanical engineering

DECENTRALIZED INSTALLATION TECHNOLOGY WITH MASI

The Murrelektronik Actuator Sensor Interface is a simple, low-cost solution for connecting actuators and sensors in the lower field level. The main advantage of the system is ease of assembly and installation, which saves time and reduces the number of errors.

Combined with the installation technology, the continuity of Murrelektronik's AS-Interface System provides a continuous solution from control panel to switch cabinet to field – from MASI00 to MASI68/69K – and from IP00 to IP68/69K. The application-oriented optimization of the modules allows systems to be constructed and expanded both rapidly and reliably.

MA SI – THE CLEVER AS-INTERFACE SYSTEM FROM MURRELEKTRONIK



MA SI00/20 – Rational wiring

Designed for use in control cabinets because of its compact design and protection class.



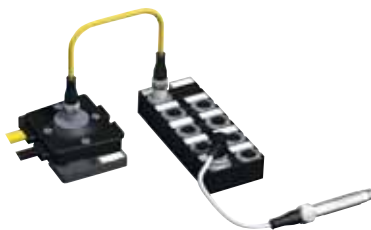
MA SI65 – a clever way of saving space

The compact I/O modules make automation child's play in the handling, assembly and packing areas.



MA SI67 – Comfortable installation

The continuous installation system for mechanical engineering. Especially resistant to mechanical influences such as vibration and shocks and sealed to meet industrial requirements.



MA SI68 – For greater demands

With round cable bus connections, designed for exposed areas with extremely stringent tightness requirements. Provides a comprehensive solution with protection IP68/69K.

INFORMATION

The Murrelektronik actuator-sensor interface is a simple, low-cost solution for connecting actuators and sensors in the lower field level. The advantage of the system is its ease of use in planning, assembly and installation. The system is supplemented by TÜV-certified modules with safe outputs for use in safety circuits up to category 3.

MASI – UNIVERSAL AS-INTERFACE MODULES FROM MURRELEKTRONIK



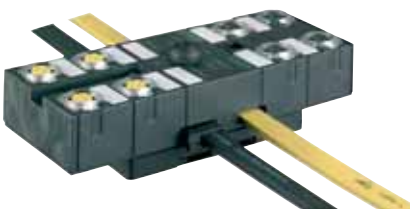
Save valuable space in the switch cabinet – excellent functionality with compact dimensions

- Insulation displacement/spring clamp plug-in terminals reduce the cost of installation
- coded plug connectors prevent mistakes



Avoid mistakes during installation – profile cable connection with penetration technology

- Bus distributor function - flexible, with no additional costs
- Just one main screw for securing the module - reduces assembly costs



Application-optimized installation technology

- Flexible profile cable connection
- Rapid installation - reversed polarity is a thing of the past
- Resistant to mechanical stress



Install and plug in – ready

- Rapid installation without polarity reversal using M12 connection
- Minimal space requirement
- Robust and sealed by means of encapsulation

Murrelektronik's AS Interface products are

- Simple – connections using penetration technology, insulation displacement technology or M12
- Continuous – products that are tailored to application areas, from IP00 to IP68/69K
- Up to date – the latest technology in accordance with AS Interface specification 3.0

	Name		Art.-No.	Page
Digital inputs	MAI20 DI4/0.17A AB		55688	9
	MAI65 DI4/0.2A AB	4xM8	55658; 55668	14
	MAI65 DI8/0.2A AB	8xM8	55669; 55689	14
	MAI65 DI4/0.2A Y	4xM12	55629	15
	MAI65 DI4/0.2A	4xM12	55610	16
	MAI65 DI4/0.2A BV	4xM12	55622	16
	MAI65 DI8/0.4A	8xM12	55612	16
	MAI65 DI8/0.4A BV	8xM12	55623	16
	MAI65 DI8/0.2A AB	8xM12	55676	16
	MAI67 DI4/0.2A AB	4xM8	56405	19
	MAI67 DI8/0.2A AB	8xM8	56406	19
	MAI67 DI4/0.2A AB	4xM12	56400	20
	MAI67 DI8/0.24A AB	4xM12	56401	20
	MAI68 DI8/0.2A AB	8xM8	56420	22
	MAI68 DI4/0.2A AB	4xM12	56421	22
	MAI68 DI8/0.2A AB	4xM12	56424	22
Digital outputs	MAI65 DO4/0.5A Y	4xM12	55574	15
	MAI65 DO4/2A	4xM12	55615	15
	MAI65 DO8/0.5A	8xM12	55616	17
Digital inputs/outputs	MAI00 DI4 DO4/0.2A		55700	8
	MAI20 DI4/0.2A DO4/0.5A AB K3		56440	8
	MAI20 DI4/0.2A DO3/0.5A AB		55687	9
	MAI20 DI4/0.2A DO4/0.5A		55686	9
	MAI20 DI4/0.2A DO3R AB		55768	9
	MAI20 DI4/0.2A DO4R		55685	9
	MAI65 DI4/0.2A DO4/0.5A	8xM8	55634	14
	MAI65 DI4/1.6A DO4/0.5A	8xM8	55635	14
	MAI65 DI2/0.2A DO2/2A	4xM12	55625	15
	MAI65 DI4/0.2A DO4/0.5A	8xM12	55618	17
	MAI65 DI4/0.2A DO4/2A	8xM12	55624	17
	MAI65 DI4/1.6A DO4/2A	8xM12	55619	17
	MAI65 DI4/0.2A DO4/2A Y	8xM12	55571	17
	MAI65 DI4/0.2A DO4/0.5A Y	8xM12	55628	17
	MAI65 DI4/0.15A DO4/2A AB Y	8xM12	55675	17
	MAI65 DI4/1.6A DO4/2A AB Y	8xM12	55677	17
	MAI67 DI4/0.2A DO3/0.5A AB	7xM8	56407	19
	MAI67 DI4/0.2A DO4/0.5A	8xM8	56408	19
	MAI67 DI4/0.2A DO3/2A AB	4xM12	56402	20
	MAI67 DI4/0.2A DO4/2A	4xM12	56403	20
	MAI67 DI4/1.6A DO4/2A	4xM12	56404	20
	MAI68 DI4/0.2A DO3/0.5A AB	7xM8	56418	22
	MAI68 DI4/0.2A DO4/0.5A AB	8xM8	56419	22
	MAI68 DI4/0.2A DO4/0.5A Y	8xM12	56422	22

	Name		Art.-No.	Page
Valve plugs	MAI65 DO2/2A	Valve plug form A	55681	18
	MAI65 DO1/2A	Valve plug form A	55682	18
	MAI65 DO4/1A	Valve plug form A	55683	18
	MAI65 DO1/2A	Valve plug form BI	556614	18
	MAI65 DI2/0.2A DO2/2A	Valve plug form A	55680	18
	MAI65 DI2/0.2A DO2/2A	Valve plug form BI	556613	18
Safe outputs	MAI20 DI4/0.2A DO4/0.5A AB K3		56440	8
	MAI67 DI4/0.2A DO4/1.6A AB K3	4xM12	56414	23
	MAI67 DI8/0.34A DO8/1.6A AB K3	8xM12	56415	23
	MAI68 DI4/0.2A DO4/1.6A AB Y K3	8xM12	56423	23
Installation technology	MAI20 Bus and power distributor	3/2 plugs	55605, 55606, 55607	13
	MAI20 Bus and power distributor	2/3 plugs	55575, 55611	13
	Plug-in terminal for profile cable		55604	12
	MAI67 Converter	7/8"	55035, 55036	21
	MAI67 Converter	M12	55037, 55038	21
	MAI67 Distribution or connection		55034, 55033	21
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System components				
Gateways	Profibus-DP/AS-Interface (single master)	specification 2.1	55707, 556612	10
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Power supplies	MCS-A 4		85381	11
	MCS-A 4 EFD		85382	11
	with integrated earth fault detection			
	MAI-2.8		85424, 85425	11
Programming device	AS-Interface		55696	12
Z Plug	MAI Z Plug		55779	21
Repeater	MAI Repeater		55760	21

MASI00

Digital inputs/digital outputs

IP00 Protection

Module diagnostic to AS-Interface specification

MASI00 DI4 DO4 0.2A



Connection cable



Connection cable

with fork terminal ends



Ordering data	Art.-No.	Art.-No.	Art.-No.
4 digital inputs/ 4 digital outputs	55700		
1 m cable		556510	
150 mm cable			556511
System connection			
Communication and module supply	via AS-Interface system cable		
Module data			
Slave profile (IO/ ID/ ID2)	S-7.F.E		
AS-Interface specification	2.1		
Address range	1...31		
Inputs			
Type	for switches PNP, EN61131-2 compatible		
Sensor supply	AS-Interface		
Outputs			
Type	solid state outputs, short-circuit and overload protection		
Actuator supply	AS-Interface		
Switching current per output	0.2 A		
Max. total current	0.2 A		
Dimensions	H x W x D	58 x 15 x 43 mm	

MASI20

Digital inputs safe digital outputs AB-Slave

IP20 Protection

Module diagnostic to AS-Interface specification

MASI20 DI4/0,2A DO4/0,5A AB K3

4 inputs 0,2 A; 4 outputs 0,5 A; AB-Slave



Ordering data	Approvals	Art.-No.
4 digital inputs/4 digital outputs	TÜV, cULus, AS-Interface (in preparation)	56440
System connection		
Communication and module supply	via AS-Interface system cable	
Module data		
Slave profile (IO/ ID/ ID2)	S-7.A.7	
AS-Interface specification	3.0	
Address range	1...31 A/B	
Connection AS-Interface	spring clamp plug-in terminal 0,2...2,5 mm²	
Connection external actuator	spring clamp plug-in terminal 0,2...2,5 mm²	
Connection external sensor	spring clamp plug-in terminal 0,2...2,5 mm²	
Inputs		
Type	PNP, EN61131-2 compatible	
Sensor supply	switchable, AS-Interface or 24 V DC (18...30.2 V), to EN61131-2 via additional supply	
Outputs		
Type	solid state outputs, short-circuit and overload protection	
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply	
Switching current per output	0,5 A	
Dimensions	H x W x D	114 x 35 x 45 mm (with terminals)

Digital inputs

AB-Slave

Module diagnostic to AS-Interface specification

4 inputs 0.17 A; AB-Slave



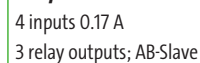
Ordering data	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface	55688
System connection		
Communication and module supply	via AS-Interface system cable	
Module data		
Slave profile (IO/ ID/ ID2)	S-0.A.0	
AS-Interface specification	2.1	
Address range	1...31 A/B	
Connection AS-Interface	insulation terminal 0.5...0.75 mm²	
Connection Sensor/Aktor	spring clamp terminal 0.14...1.5 mm²	
Inputs		
Type	PNP, EN61131-2 compatible	
Sensor supply	AS-Interface	
Dimensions	H x W x D	91 x 25 x 77 mm (with terminals)

Module diagnostic to AS-Interface specification

4 inputs 0.2 A
3 outputs 0.5 A; AB-Slave



4 inputs 0.2 A
4 outputs 0.5 A



4 inputs 0.2 A
4 relay outputs



Ordering data	Approvals	Art. No.	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs/3 digital solid state outputs	cULus, AS-Interface	55687						
4 digital inputs/4 digital solid state outputs			cULus, AS-Interface	55686				
4 digital inputs/3 digital relay outputs					cULus, AS-Interface	55768		
4 digital inputs/4 digital relay outputs							cULus, AS-Interface	55685
System connection								
Communication and module supply	via AS-Interface system cable							
Module data								
Slave profile (IO/ ID/ ID2)	S-7.A.0		S-7.0.E		S-7.A.0		S-7.0.E	
AS-Interface specification	2.1							
Address range	1...31 A/B		1...31		1...31 A/B		1...31	
Connection AS-Interface	insulation terminal 0.5...0.75 mm²							
Connection sensor/actuator	spring clamp terminal 0.14...1.5 mm²							
Inputs								
Type	PNP, EN61131-2 compatible							
Sensor supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply				AS-Interface			
Outputs								
Type	solid state outputs, short-circuit and overload protection				relay outputs, N/O			
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply							
Switching current per output	0.5 A				2 A			
Dimensions	H x W x D	91 x 25 x 77 mm (with terminals)						

MASI20 SYSTEM COMPONENTS

Profibus-DP/AS-Interface master

with diagnostic

IP20 Protection

Gateway

Single master



Gateway

Single master



Gateway

Double master

Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
	cULus, AS-Interface	55707	cULus, AS-Interface	556612	cULus, AS-Interface	556616
Profibus-DP						
Interface	to DIN 19245 part 1-3					
Connection	9-pole SUB-D					
Transfer rate	9.6...12000 Kbaud, automatic detection					
Functions	full diagnostic configuration via DP master					
AS-Interface						
Specification	2.1				3.0	
Supply voltage	AS-Interface					
Cycle time	150 µs x (number of slaves +2)					
Display						
LCD	Plain text display with menu system					
LED	5 status and diagnostic LEDs					
Operation						
	via 4 buttons (mode/set/OK/ESC)					
Diagnostic						
	expanded slave diagnostic					
	scope function				earth fault function	
					EMC monitoring	
					double address monitoring	
Dimensions	H x W x D	75 x 100 x 110 mm	120 x 75 x 83 mm			

MA SI20 SYSTEM COMPONENTS

Power supplies for AS-Interface

- single-phase
- primary switch mode

IP20 Protection

MCS-A 4



MCS-A 4 EFD

with integrated earth fault detection



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.
	cULus, AS-Interface	85381	cULus, AS-Interface	85382
Primary connection				
Input voltage	95...265 V AC			
Connection	screw terminals			
Frequency	50/60Hz			
AS-Interface connection				
Output voltage	30.5 V DC			
Output current	4 A			
Connection	spring clamp terminals, pluggable			
Data decoupling	filter to AS-Interface specification			
Dimensions	H x W x D	115 x 62 x 147 mm		

Power supplies for AS-Interface

- single-phase
- primary switch mode

IP20 Protection

MA SI - 2.8

Input voltage 115 V AC



MA SI - 2.8

Input voltage 230 V AC

Ordering data	Art.-No.	Art.-No.
	85424	85425
Primary connection		
Input voltage	230 V AC	115 V AC
Connection	screw terminals	
Frequency	50/60Hz	
AS-Interface connection		
Output voltage	30.5 V DC	
Output current	2.8 A	
Connection	screw terminals	
Data decoupling	filter to AS-Interface specification	
Dimensions	H x W x D	153 x 103 x 70 mm

MASI20 SYSTEM COMPONENTS

AS-Interface Programming device

IP20 Protection



Ordering data	Approvals	Art.-No.
	AS-Interface	55696
Technical data		
Application range	addressing and function test of AS-Interface slaves	
Connection	via M12 female or special adapter	
Functions	addressing of AS-Interface slaves	
	reading of slave profiles	
	input and out datas read and write	
	parameter read and write	
	periphery fault display	
	fault alarm display	
Operation modules	5 function keys	
Delivery content	charging unit and addressing cable	

MASI20 INSTALLATION TECHNOLOGY

AS-Interface Plug-in terminal for profile cable

IP20 Protection



Ordering data	Art.-No.
	55604
Technical data	
Max. voltage	36 V DC
Max. total current	8 A
Connection	piercing technology
General data	
Temperature range	-20...+70 °C
Weight	approx. 8 g
Dimensions	H x W x D 23 x 24 x 18 mm

MASI20 INSTALLATION TECHNOLOGY

MASI20 Bus and power distributor

3 AS-Interface and 2 power plugs

2 AS-Interface and 3 power plugs

IP20 Protection



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.
5 plug terminals included	cULus	55606	cULus	55575
Technical data				
Function	conversion from wire cabling to pluggable distribution with AS Interface profile cables			
	no polarity reversal			
	pluggable profile cable connection			
	no profile cable stripping required			
Connection	stranded wire (0.2...1.5 mm²), single-core (0.2...2.5 mm²)			
	screw terminal			
Mounting method	DIN-rail mounting to EN60715			
Plugs				
Max. current per plug	8 A			
Max. total current	24 A			
Dimensions	H x W x D	67 x 90 x 52 mm		

MASI20 Bus and power distributor

3 AS-Interface and 2 power plugs

5 plug terminals

IP20 Protection



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.
5 plug terminals included	cULus	55605	cULus	55611
Without plug terminals	cULus	55607		
Technical data				
Function	conversion from wire cabling to pluggable distribution with AS Interface profile cables			
	no polarity reversal			
	pluggable profile cable connection			
	no profile cable stripping required			
Connection	stranded wire (0.2...1.5 mm²), single-core (0.2...2.5 mm²)			
	spring clamp terminal			
Mounting method	DIN-rail mounting to EN60715			
Plugs				
Max. current per plug	8 A			
Max. total current	12 A			
Dimensions	H x W x D	152 x 25 x 61 mm		

MAI65 M8

Digital inputs AB-Slave

IP67 Protection

Module diagnostic to AS-Interface specification

MAI65 DI4/0.2A AB 4xM8

4 inputs 0.2 A; AB-Slave



MAI65 DI8/0.24A AB 8xM8

8 inputs 0.24 A; AB-Slave



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface	55668	AS-Interface	55658				
8 digital inputs					AS-Interface	55669	AS-Interface	55689
System connection								
Communication and module supply	via AS-Interface system cable							
Module data								
Slave profile (IO/ ID/ ID2)	S-0.A.0				2x S-0.A.0			
AS-Interface specification	2.1							
Address range	1...31 A/B							
Bus distributor function	no		yes		no		yes	
Inputs								
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible							
Sensor supply	AS-Interface							
Dimensions	H x W x D	120 x 48 x 38 mm						

Digital inputs/digital outputs

IP67 Protection

Module diagnostic to AS-Interface specification

MAI65 DI4/0.2A DO4/0.5A 8xM8

4 inputs 0.2 A; 4 outputs 0.5 A



MAI65 DI4/1.6A DO4/0.5A 8xM8

4 inputs 1.6 A; 4 outputs 0.5 A

Ordering data	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs/ 4 digital outputs	cULus, AS-Interface	55634	cULus, AS-Interface	55635
System connection				
Communication and module supply	via AS-Interface system cable			
Module data				
Slave profile (IO/ ID/ ID2)	S-7.0.E			
AS-Interface specification	2.1			
Address range	1...31			
Bus distributor function	no			
Inputs				
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible			
Sensor supply	AS-Interface		from external 24 V DC	
Outputs				
Type	solid state outputs			
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply			
Switching current per output	0.5 A short-circuit and overload protection			
Dimensions	H x W x D	120 x 48 x 38 mm		

MASI65 M12

Digital inputs digital outputs

IP67 Protection

Module diagnostic to AS-Interface specification

MASI65 DI4/0.2A Y 4xM12

4 inputs 0.2 A



MASI65 DO4/0.5A Y 4xM12

4 outputs 0.5 A



MASI65 DO4/2A 4xM12

4 outputs 2 A

Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface	55629				
4 digital outputs			cULus, AS-Interface	55574	cULus, AS-Interface	55615
System connection						
Communication and module supply	via AS-Interface system cable					
Module data						
Slave profile (IO/ ID/ ID2)	S-0.1.F		S-8.1.E		S-8.0.E	
AS-Interface specification	2.1					
Address range	1...31					
Bus distributor function	no					
I/O plugs						
Layout	Y-wiring				standard	
Inputs						
Type, PNP, EN61131-2 compatible	for 3-wire sensors or mechanical switches –					
Sensor supply	AS-Interface		–			
Outputs						
Type	–		solid state outputs, short-circuit and overload protection			
Actuator supply	–		24 V DC (18...30.2 V), to EN61131-2 via additional supply			
Switching current per output	–		0.5 A		2 A	
Dimensions	H x W x D	105 x 50 x 38 mm				

Digital inputs/digital outputs

IP67 Protection

Module diagnostic to AS-Interface specification

MASI65 DI2/0.2A DO2/2A 4xM12

2 inputs 0.2 A; 2 outputs 2 A



Ordering data	Approvals	Art.-No.
2 digital inputs/2 digital outputs	cULus, AS-Interface	55625
System connection		
Communication and module supply	via AS-Interface system cable	
Module data		
Slave profile (IO/ ID/ ID2)	S-3.0.E	
AS-Interface specification	2.1	
Address range	1...31	
Bus distributor function	no	
I/O plugs		
Layout	standard	
Inputs		
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	
Sensor supply	AS-Interface	
Outputs		
Type	solid state outputs, short-circuit and overload protection	
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply	
Switching current per output	2 A	
Dimensions	H x W x D	105 x 50 x 38 mm

MA5165 M12

Digital inputs

IP67 Protection

Module diagnostic to AS-Interface specification

MA5165 DI4/0.2A 4xM12

4 inputs 0.2 A



MA5165 DI8/0.4A 8xM12

8 inputs 0.4 A



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface	55610	cULus, AS-Interface	55622				
8 digital inputs					cULus, AS-Interface	55612	cULus, AS-Interface	55623
System connection								
Communication and module supply	via AS-Interface system cable							
Module data								
Slave profile (IO/ ID/ ID2)	S-0.0.F				2 x S-0.0.F			
AS-Interface specification	2.1							
Address range	1...31							
Bus distributor function	no		yes		no		yes	
I/O plugs								
Layout	standard							
Inputs								
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible							
Sensor supply	AS-Interface							
Dimensions	H x W x D	105 x 50 x 38 mm			154 x 50 x 38 mm			

Digital inputs

AB-Slave

IP67 Protection

Module diagnostic to AS-Interface specification

MA5165 DI8/0.2A AB Y 8xM12

8 inputs 0.2 A; AB-Slave



Ordering data	Approvals	Art.-No.
8 digital inputs	cULus	55676
System connection		
Communication and module supply	via AS-Interface system cable	
Module data		
Slave profile (IO/ ID/ ID2)	2 x S-0.A.2	
AS-Interface specification	2.1	
Address range	1...31 A/B	
Bus distributor function	no	
I/O plugs		
Layout	Y-wiring	
Inputs		
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	
Sensor supply	AS-Interface	
Dimensions	H x W x D	154 x 50 x 38 mm

MASI65 M12

Digital inputs/digital outputs

IP67 Protection

Module diagnostic to AS-Interface specification

MASI65 DI4/0.2A DO4/0.5A 8xM12

4 inputs 0.2 A; 4 outputs 0.5 A



MASI65 DI4/0.2A DO4/2A 8xM12

4 inputs 0.2 A; 4 outputs 2 A

MASI65 DI4/1.6A DO4/2A 8xM12

4 inputs 1.6 A; 4 outputs 2 A

MASI65 D08 /0.5A 8xM12

8 outputs 0.5 A

Ordering data	Approvals	Art. No.	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs/4 digital outputs	cULus, AS-Interface	55618	cULus, AS-Interface	55624	cULus, AS-Interface	55619		
8 digital outputs							cULus, AS-Interface	55616
System connection								
Communication and module supply	via AS-Interface system cable							
Module data								
Slave profile (IO/ ID/ ID2)	S-7.0.E						2x S-8.0.E	
AS-Interface specification	2.1							
Address range	1...31						1...31 A/B	
I/O plugs								
Layout	standard							
Inputs								
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible				–			
Sensor supply	AS-Interface				from external 24 V DC		–	
Outputs								
Type	solid state outputs, short-circuit and overload protection							
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply							
Switching current per output	0.5 A		2 A		2 A		0.5 A	
Dimensions	H x W x D	154 x 50 x 38 mm						

Digital inputs/digital outputs

IP67 Protection

Module diagnostic to AS-Interface specification

MASI65 DI4/0.2A DO4/2A Y 8xM12

4 inputs 0.2 A; 4 outputs 2 A



MASI65 DI4/0.2A DO4/0.5A Y 8xM12

4 inputs 0.2 A; 4 outputs 0.5 A

MASI65 DI4/0.15A DO3/2A AB Y 7xM12

4 inputs 0.15 A; 3 outputs 2 A
AB-Slave

MASI65 DI4/1.6A DO3/2A AB Y 7xM12

4 inputs 1.6 A; 3 outputs 2 A
AB-Slave

Ordering data	Approvals	Art. No.	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs/4 digital outputs	cULus, AS-Interface	55571	cULus, AS-Interface	55628				
4 digital inputs/3 digital outputs					cULus	55675	cULus	55677
System connection								
Communication and module supply	via AS-Interface system cable							
Module data								
Slave profile (IO/ ID/ ID2)	S-7.F.E				S-7.A.2			
AS-Interface specification	2.1							
Address range	1...31				1...31 A/B			
I/O plugs								
Layout	Y-wiring							
Inputs								
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible							
Sensor supply	AS-Interface						from external 24 V DC	
Outputs								
Type	solid state outputs, short-circuit and overload protection							
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply							
Switching current per output	2 A		0.5 A		2 A			
Dimensions	H x W x D	154 x 50 x 38 mm						

MA SI65 VALVE PLUG

Form A, 18 mm
Digital inputs/digital outputs
Digital outputs via M12

IP67 Protection

Module diagnostic to
AS-Interface specification

MA SI65 DI2/0.2A DO2/2A VA **MA SI65 DO2/2A VA**
 2 inputs 0.2 A; 2 outputs 2 A 2 outputs 2 A

MA SI65 DO1/2A VA
 1 Ausgang 2 A

MA SI65 DO4/1A VA
 4 outputs 1 A



Ordering data	Approvals	Art. No.	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
2 digital inputs/2 digital outputs	cULus, AS-Interface	55680						
2 digital outputs			cULus, AS-Interface	55681				
1 digital output					cULus, AS-Interface	55682		
4 digital outputs							cULus, AS-Interface	55683
System connection								
Communication and module supply	via AS-Interface system cable							
Module data								
Slave profile (IO/ ID/ ID2)	S-3.F.E						S-8.F.E	
AS-Interface specification	2.1							
Address range	1...31							
I/O plugs								
Layout M12/inputs	PIN 2+4							
Layout M12/outputs	PIN 4		PIN 4				PIN 2+4/PIN 4	
Inputs								
Type, PNP, EN61131-2 compatible for	3-wire sensors or mechanical switches		—					
Sensor supply	AS-Interface		—					
Outputs								
Type	solid state outputs, short-circuit and overload protection							
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply							
Switching current per output	2 A						1 A	
Dimensions	H x W x D	66 x 33 x 50 mm						

Form BI, 11 mm
Digital inputs/digital outputs
Digital outputs via M12

IP67 Protection

Module diagnostic to
AS-Interface specification

MA SI65 DI2/0.2A DO2/2A VBI
 2 inputs 0.2 A; 2 outputs 2 A

MA SI65 DO1/2A VBI
 1 output 2 A



Ordering data	Approvals	Art. No.	Approvals	Art.-No.
2 digital inputs/2 digital outputs	AS-Interface	556613		
1 digital output			AS-Interface	556614
System connection				
Communication and module supply	via AS-Interface system cable			
Module data				
Slave profile (IO/ ID/ ID2)	S-3.F.E			
AS-Interface specification	2.1			
Address range	1...31			
I/O plugs				
Layout M12/inputs	PIN 2+4		–	
Layout M12/outputs	PIN 4		–	
Inputs				
Type, PNP, EN61131-2 compatible	for 3-wire sensors or mechanical switches			
Sensor supply	AS-Interface			
Outputs				
Type	solid state outputs, short-circuit and overload protection			
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply			
Switching current per output	2 A			
Dimensions	H x W x D	66 x 33 x 68 mm		

MA SI67 M8

Digital inputs AB-Slave

IP67 Protection

Module diagnostic to AS-Interface specification

MA SI67 DI4/0.2A AB 4xM8

4 inputs 0.2 A; AB-Slave



MA SI67 DI8/0.24A AB 8xM8

8 inputs 0.24 A; AB-Slave



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface	56405		
8 digital inputs			cULus, AS-Interface	56406
System connection				
Communication and module supply	via AS-Interface system cable			
Module data				
Slave profile (IO/ ID/ ID2)	S-0.A.0	2x S-0.A.0		
AS-Interface specification	2.1			
Address range	1...31 A/B			
I/O plugs				
Layout	standard			
Inputs				
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible			
Sensor supply	AS-Interface			
Dimensions	H x W x D	90 x 60 x 39 mm		

Digital inputs/digital outputs

IP67 Protection

Module diagnostic to AS-Interface specification

MA SI67 DI4/0.2A DO3/0.5A AB 7xM8

4 inputs 0.2 A; 3 outputs 0.5 A; AB-Slave



MA SI67 DI4/0.24A DO4/0.5A 8xM8

4 inputs 0.2 A; 4 outputs 0.5 A

Ordering data	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs/3 digital outputs	cULus, AS-Interface	56407		
4 digital inputs/4 digital outputs			cULus, AS-Interface	56408
System connection				
Communication and module supply	via AS-Interface system cable			
Module data				
Slave profile (IO/ ID/ ID2)	S-7.A.0		S-7.0.E	
AS-Interface specification	2.1			
Address range	1...31 A/B		1...31	
I/O plugs				
Layout	standard			
Inputs				
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible			
Sensor supply	AS-Interface			
Outputs				
Type	solid state outputs, short-circuit and overload protection			
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply			
Switching current per output	0.5 A			
Dimensions	H x W x D	90 x 60 x 39 mm		

MA SI67 M12

Digital inputs AB-Slave

IP67 Protection

Module diagnostic to AS-Interface specification

MA SI67 DI4/0.2A AB 4xM12

4 inputs 0.2 A; AB-Slave



MA SI67 DI8/0.24A AB 4xM12

8 inputs 0.24 A; AB-Slave



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface, Atex	56400		
8 digital inputs			cULus, AS-Interface, Atex	56401
System connection				
Communication and module supply	via AS-Interface system cable			
Module data				
Slave profile (IO/ ID/ ID2)	S-0.A.0		2x S-0.A.2	
AS-Interface specification	2.1			
Address range	1...31 A/B			
I/O plugs				
Layout	standard/PIN4		double layout/PIN2+4	
Inputs				
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible			
Sensor supply	AS-Interface			
Dimensions	H x W x D	94 x 60 x 39 mm		

Digital inputs/digital outputs

IP67 Protection

Module diagnostic to AS-Interface specification

MA SI67 DI4/0.2A D03/2A AB 4xM12

4 inputs 0.2 A; 3 outputs 2 A; AB-Slave



MA SI67 DI4/0.2A D04/2A 4xM12

4 inputs 0.2 A; 4 outputs 2 A

MA SI67 DI4/1.6 D04/2A 4xM12

4 inputs 1.6 A; 4 outputs 2 A

Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs/3 digital outputs	cULus, AS-Interface, Atex	56402				
4 digital inputs/4 digital outputs			cULus, AS-Interface, Atex	56403	cULus, AS-Interface, Atex	56404
System connection						
Communication and module supply	via AS-Interface system cable					
Module data						
Slave profile (IO/ ID/ ID2)	S-7.A.2		S-7.F.E			
AS-Interface specification	2.1					
Address range	1...31 A/B		1...31			
I/O plugs						
Layout	double layout/PIN2+4					
Inputs						
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible					
Sensor supply	AS-Interface				from external 24 V DC	
Outputs						
Type	solid state outputs, short-circuit and overload protection					
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply					
Switching current per output	2 A					
Dimensions	H x W x D	94 x 60 x 39 mm				

MA SI67 INSTALLATION TECHNOLOGY AND SYSTEM COMPONENTS

Installation technology

IP67 Protection

MA SI67 Converter 7/8"



representative illustration - female

MA SI67 Converter M12



representative illustration - female

MA SI67 Connection or distributor



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
Converter 2x profile cable to 7/8" female	cULus	55035				
Converter 2x profile cable to 7/8" male	cULus	55036				
Converter 2x profile cable to M12 female			cULus	55037		
Converter 2x profile cable to M12 male			cULus	55038		
Distributor 1x to 3x profile cable					cULus	55034
Connection 2x to 2x profile cable					cULus	55033
Technical data						
Max. voltage	36 V DC					
Max. total current	8 A		4 A		8 A	
Insulation voltage AS-Interface/power	200 V					
Dimensions	H x W x D	90 x 60 x 51 mm (fem), 95 x 60 x 46 mm (ma)		90 x 60 x 31 mm (fem), 90 x 60 x 40 mm (ma)		90 x 60 x 26 mm

Installation technology

IP67 Protection

MA SI67 Passive distributor

distribution 2 x profile cable to 4 x M12 female



Ordering data	Art.-No.	Art.-No.
	56412	56416
System connection		
Communication and module supply	via AS-Interface system cable	
Technical data		
External supply voltage	one voltage supply source	two different voltage supply sources
Max. current via M12 female	4 A	
Max. total current	8 A	8 A/8 A
Dimensions	H x W x D	94 x 60 x 39 mm

System components

IP67 Protection

MA SI67 Repeater



MA SI Z Plug

Passive bus terminator via M12



Ordering data	Art.-No.	Art.-No.
	55670	55779
System connection		
Communication and module supply	via AS-Interface system cable	
Technical data		
Current usage	45 mA per segment	—
Supply voltage	18.5...31.6 V DC	—
Bus extension	100 m	—
Signal running time	12 µs per telegram	—
Max. current usage	—	10 mA
Diagnostic	—	under voltage detection at the end of AS-Interface cords
Layout	—	PIN 1 and 3 (AS-Interface)
Dimensions	H x W x D	118 x 60 x 23 mm
		ø x H 21 x 45 mm

MA SI68 M8

Digital inputs
Digital inputs/digital outputs

IP68 Protection

Module diagnostic to
AS-Interface specification

MA SI68 DI8/0.2A AB 8xM8

8 inputs 0.2 A; AB-Slave



MA SI68 DI4/0.2A DO3/0.5A AB 7xM8

4 inputs 0.2 A; 3 outputs 0.5 A; AB-Slave

MA SI68 DI4/0.2A DO4/0.5A 8xM8

4 inputs 0.2 A; 4 outputs 0.5 A

Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
8 digital inputs	cULus, AS-Interface	56420				
4 digital inputs/3 digital outputs			cULus, AS-Interface	56418		
4 digital inputs/4 digital outputs					cULus, AS-Interface	56419
System connection						
Communication and module supply	via AS-Interface system cable					
Module data						
Slave profile (IO/ ID/ ID2)	2x S-0.A.0		S-7.A.0		S-7.0.0	
AS-Interface specification	3.0					
Address range	1...31 A/B				1...31	
I/O plugs						
Layout	standard					
Inputs						
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible					
Sensor supply	AS-Interface					
Outputs						
Type	–		solid state outputs, short-circuit and overload protection			
Actuator supply	–		24 V DC (18...30.2 V), to EN61131-2 via additional supply			
Switching current per output	–		0.5 A			
Dimensions	H x W x D	126 x 30 x 34.5 mm				

MA SI68 M12

Digital inputs
Digital inputs/digital outputs

IP68 Protection

Module diagnostic to
AS-Interface specification

MA SI68 DI4/0.2A Y AB 4x M12

4 inputs 0.2 A; AB-Slave



MA SI68 DI8/0.24A AB 4xM12

8 inputs 0.24 A; AB-Slave

MA SI68 DI4/0.2A DO4/2A Y 8xM12

4 inputs 0.2 A; 4 outputs 2 A



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface	56421				
8 digital inputs			cULus, AS-Interface	56424		
4 digital inputs/4 digital outputs					cULus, AS-Interface	56422
System connection						
Communication and module supply	via AS-Interface system cable					
Module data						
Slave profile (IO/ ID/ ID2)	S-0.A.2		2x S-0.A.2		S-7.F.E	
AS-Interface specification	3.0					
Address range	1...31 A/B				1...31	
I/O plugs						
Layout M12/inputs	Y-wiring		PIN 2+4		Y-wiring	
Layout M12/outputs					Y-wiring	
Inputs						
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible					
Sensor supply	AS-Interface					
Outputs						
Type	–				solid state outp., short-circuit,overl. protection	
Actuator supply	–				24 V DC (18...30.2 V), to EN61131-2	
Switching current per output	–				2 A	
Dimensions	H x W x D	126 x 30 x 34.5 mm			126 x 50 x 34.5 mm	

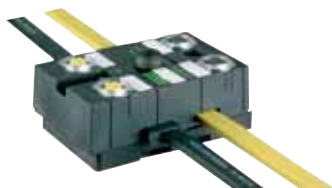
MA SI K3 M12

Digital inputs/
safe digital outputs
AB-Slave

Module diagnostic to
AS-Interface specification

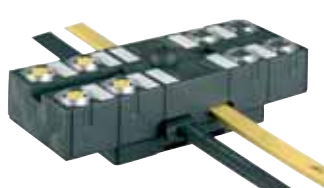
MA SI67 DI4/0.2A DO4/1.6A AB K3 4xM12

4 inputs 0.2 A; 4 outputs 1.6 A; AB-Slave



MA SI67 DI8/0.34A DO8/1.6A AB K3 8xM12

8 inputs 0.2 A; 8 outputs 1.6 A; AB-Slave



MA SI68 DI4/0.2A DO4/1.6A AB Y K3 8xM12

4 inputs 0.2 A; 4 outputs 1.6 A; AB-Slave



Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs/4 digital outputs	cULus, AS-Interface, TÜV	56414			cULus, AS-Interface, TÜV	56423
8 digital inputs/8 digital outputs			cULus, AS-Interface, TÜV	56415		
System connection						
Communication and module supply	via AS-Interface system cable					
Module data						
Slave profile (IO/ ID/ ID2)	S-7.A.7		2x S-7.A.7		S-7.A.2	
AS-Interface specification	3.0					
Address range	1...31 A/B					
I/O plugs						
Layout M12/inputs	PIN 2+4				Y-wiring	
Layout M12/outputs	PIN 2+4				Y-wiring	
Inputs						
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible					
Sensor supply	AS-Interface					
Outputs						
Type	passive and safe solid state outputs, short-circuit and overload protection					
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via additional supply					
Switching current per output	1.6 A					
Dimensions	H x W x D	94 x 74 x 39 mm	144 x 74 x 39 mm		126 x 50 x 34.5 mm	

Accessories			Art.-No.
AS-Interface distributor	profile cable		55749
	profile- / round cable		55745
AS-Interface breakout	profile cable -> round cable		55740
	profile cable -> PG11		55732
	profile cable to M12		55741
AS-Interface profile cable	yellow, 2 x 1.5 mm ²		55743
	black, 2 x 1.5 mm ²		55744
Mounting bracket	for AS-Interface profile cable		55742
Accessories MASI20			Art.-No.
Spring clamp terminal	for I/O level	VE = 5 pieces	55213
Screw terminal	for I/O level	VE = 5 pieces	55210
Label plate	for bus and external supply	VE = 20 pieces	55219
	for module	VE = 22 pieces	55218
Insulation terminal	for AS-Interface bus connection	VE = 5 pieces	55214
	for external supply	VE = 5 pieces	55215
Screw terminal	for AS-Interface bus connection		55211
	for external supply		55212
Accessories MASI65			Art.-No.
Snap-in adapter	for DIN-rail mounting		55713
M12 blind plug	for M12 females	VE = 4 pieces	55468
AS-Interface sealing at profile cables end	for profile cables	VE = 5 pieces right, 5 pieces left	55746
Accessories MASI67			Art.-No.
Sealing at profile cables end	for profile cables	VE = 2 pieces right, 2 pieces left	55061
Middle seal	for 2 profile cables	VE = 2 pieces	55062
Coding element	short	VE = 2 pieces	55059
	long, to position profile cable	VE = 2 pieces	55060
M12 blind plug	for M12 females	VE = 4 pieces	55468



55749



55745



55732



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