**MURR ELEKTRONIK**

stay connected

AS-Interface System
from IP00…IP68/69K
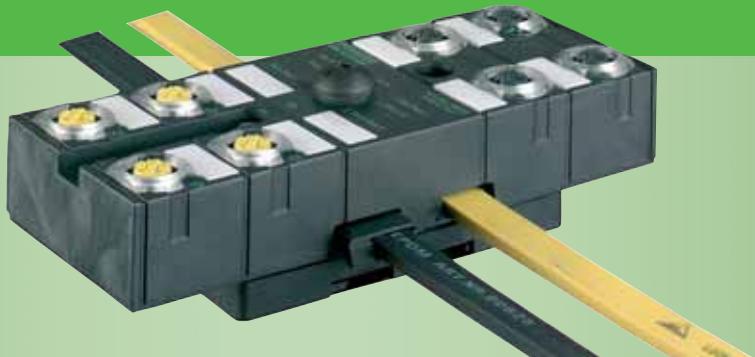
| Variety

| Modular

| Flexible
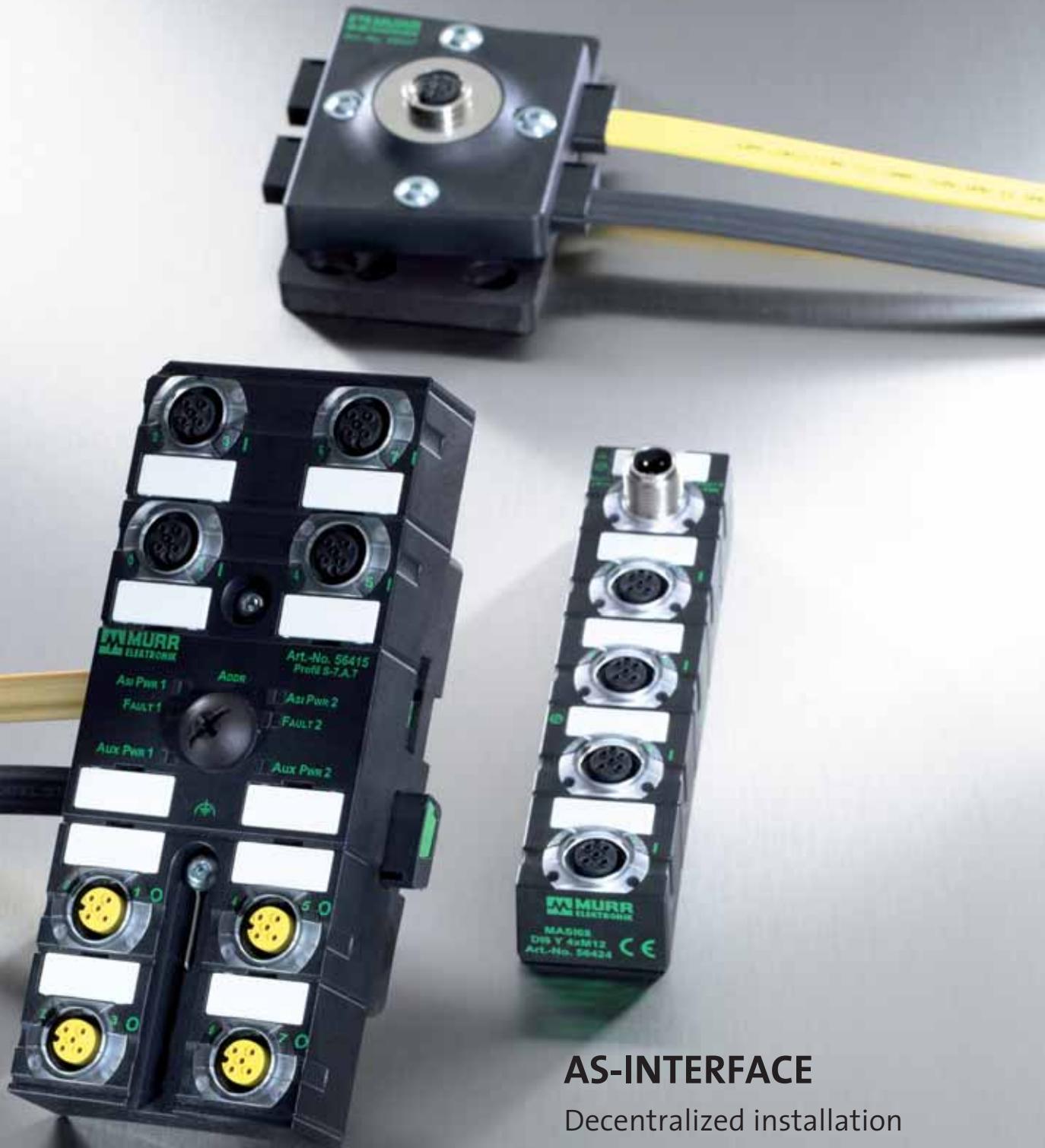
AS-INTERFACE

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.

MASI – THE CLEVER AS-INTERFACE SYSTEM FROM MURRELEKTRONIK

MASI00/20 – Rational wiring

Designed for use in control cabinets because of its compact design and protection class.
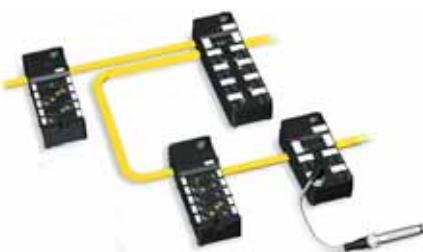
MASI65 – a clever way of saving space

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

MASI67 – 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.

MASI68 – 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.

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# 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
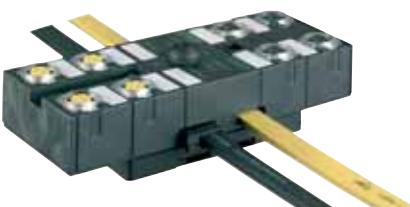
Application-optimized installation technology

- 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	MASI20 DI4/0.17A AB		55688	9
	MASI65 DI4/0.2A AB	4xM8	55658; 55668	14
	MASI65 DI8/0.2A AB	8xM8	55669; 55689	14
	MASI65 DI4/0.2A Y	4xM12	55629	15
	MASI65 DI4/0.2A	4xM12	55610	16
	MASI65 DI4/0.2A BV	4xM12	55622	16
	MASI65 DI8/0.4A	8xM12	55612	16
	MASI65 DI8/0.4A BV	8xM12	55623	16
	MASI65 DI8/0.2A AB	8xM12	55676	16
	MASI67 DI4/0.2A AB	4xM8	56405	19
	MASI67 DI8/0.2A AB	8xM8	56406	19
	MASI67 DI4/0.2A AB	4xM12	56400	20
	MASI67 DI8/0.24A AB	4xM12	56401	20
	MASI68 DI8/0.2A AB	8xM8	56420	22
	MASI68 DI4/0.2A AB	4xM12	56421	22
	MASI68 DI8/0.2A AB	4xM12	56424	22
Digital outputs	MASI65 DO4/0.5A Y	4xM12	55574	15
	MASI65 DO4/2A	4xM12	55615	15
	MASI65 DO8/0.5A	8xM12	55616	17
Digital inputs/outputs	MASI00 DI4 DO4/0.2A		55700	8
	MASI20 DI4/0,2A DO4/0,5A AB K3		56440	8
	MASI20 DI4/0.2A DO3/0.5A AB		55687	9
	MASI20 DI4/0.2A DO4/0.5A		55686	9
	MASI20 DI4/0.2A DO3R AB		55768	9
	MASI20 DI4/0.2A DO4R		55685	9
	MASI65 DI4/0.2A DO4/0.5A	8xM8	55634	14
	MASI65 DI4/1.6A DO4/0.5A	8xM8	55635	14
	MASI65 DI2/0.2A DO2/2A	4xM12	55625	15
	MASI65 DI4/0.2A DO4/0.5A	8xM12	55618	17
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	MASI65 DI4/1.6A DO4/2A	8xM12	55619	17
	MASI65 DI4/0.2A DO4/2A Y	8xM12	55571	17
	MASI65 DI4/0.2A DO4/0.5A Y	8xM12	55628	17
	MASI65 DI4/0.15A DO4/2A AB Y	8xM12	55675	17
	MASI65 DI4/1.6A DO4/2A AB Y	8xM12	55677	17
	MASI67 DI4/0.2A DO3/0.5A AB	7xM8	56407	19
	MASI67 DI4/0.2A DO4/0.5A	8xM8	56408	19
	MASI67 DI4/0.2A DO3/2A AB	4xM12	56402	20
	MASI67 DI4/0.2A DO4/2A	4xM12	56403	20
	MASI67 DI4/1.6A DO4/2A	4xM12	56404	20
	MASI68 DI4/0.2A DO3/0.5A AB	7xM8	56418	22
	MASI68 DI4/0.2A DO4/0.5A AB	8xM8	56419	22
	MASI68 DI4/0.2A DO4/0.5A Y	8xM12	56422	22

	Name		Art.-No.	Page
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	MASI65 DO1/2A	Valve plug form A	**55682**	18
	MASI65 DO4/1A	Valve plug form A	**55683**	18
	MASI65 DO1/2A	Valve plug form BI	**556614**	18
	MASI65 DI2/0.2A DO2/2A	Valve plug form A	**55680**	18
	MASI65 DI2/0.2A DO2/2A	Valve plug form BI	**556613**	18
Safe outputs	MASI20 DI4/0,2A DO4/0,5A AB K3		**56440**	8
	MASI67 DI4/0.2A DO4/1.6A AB K3	4xM12	**56414**	23
	MASI67 DI8/0.34A DO8/1.6A AB K3	8xM12	**56415**	23
	MASI68 DI4/0.2A DO4/1.6A AB Y K3	8xM12	**56423**	23
Installation technology	MASI20 Bus and power distributor	3/2 plugs	**55605, 55606, 55607**	13
	MASI20 Bus and power distributor	2/3 plugs	**55575, 55611**	13
	Plug-in terminal for profile cable		**55604**	12
	MASI67 Converter	7/8"	**55035, 55036**	21
	MASI67 Converter	M12	**55037, 55038**	21
	MASI67 Distribution or connection		**55034, 55033**	21
	MASI67 Passive distributor	4xM12	**56412, 56416**	21

System components

Gateways	Profibus-DP/AS-Interface (single master)	specification 2.1	**55707, 556612**	10
	Profibus-DP/AS-Interface (double master)	specification 3.0	**556616**	10
Power supplies	MCS-A 4		**85381**	11
	MCS-A 4 EFD		**85382**	11
	with integrated earth fault detection			
	MASI-2.8		**85424, 85425**	11
Programming device	AS-Interface		**55696**	12
Z Plug	MASI Z Plug		**55779**	21
Repeater	MASI Repeater		**55760**	21

MASI00

Digital inputs/digital outputs	MASI00 DI4 DO4 0.2A	Connection cable	Connection cable
IP00 Protection			with fork terminal ends
Module diagnostic to AS-Interface specification			

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	MASI20 DI4/0,2A DO4/0,5A AB K3
	4 inputs 0,2 A; 4 outputs 0,5 A; AB-Slave
IP20 Protection	
Module diagnostic to AS-Interface specification	

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 mm^2	
Connection external actuator	spring clamp plug-in terminal 0,2...2,5 mm^2	
Connection external sensor	spring clamp plug-in terminal 0,2...2,5 mm^2	
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)	

MASI20

Digital inputs
AB-Slave

IP20 Protection

Module diagnostic to
AS-Interface specification

MASI20 DI4/0.17A AB
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)	

Digital inputs/digital outputs

IP20 Protection

Module diagnostic to
AS-Interface specification

	MASI20 DI4/0.2A DO3/0.5A AB 4 inputs 0.2 A 3 outputs 0.5 A; AB-Slave		MASI20 DI4/0.2A DO4/0.5A 4 inputs 0.2 A 4 outputs 0.5 A		MASI20 DI4/0.17A DO3R AB 4 inputs 0.17 A 3 relay outputs; AB-Slave		MASI20 DI4/0.2A DO4R 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					
	skope 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			

MASI20 SYSTEM COMPONENTS

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**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

MASI - 2.8
Input voltage 115 V AC

MASI - 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

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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			

MASI65 M8

**Digital inputs
AB-Slave**

IP67 Protection

**Module diagnostic to
AS-Interface specification**

MASI65 DI4/0.2A AB 4xM8
4 inputs 0.2 A; AB-Slave

MASI65 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**

MASI65 DI4/0.2A DO4/0.5A 8xM8
4 inputs 0.2 A; 4 outputs 0.5 A

MASI65 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	

MASI65 M12

Digital inputs

IP67 Protection

**Module diagnostic to
AS-Interface specification**

MASI65 DI4/0.2A 4xM12
4 inputs 0.2 A

MASI65 DI8/0.4A 8xM12
8 inputs 0.4 A
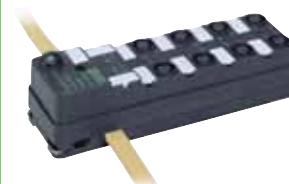
Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface	**55610**	cULus, AS-Interface	**55622**				
8 digital inputs					cULus, AS-Interface	**55612**	cULus, AS-Interface	**55623**
System connection								
Communication and module 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**

MASI65 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 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							
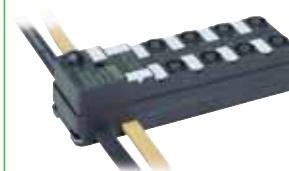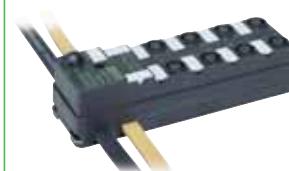
Digital inputs/digital outputs IP67 Protection Module diagnostic to AS-Interface specification	MASI65 DI4/0.2A DO4/2A Y 8xM12 4 inputs 0.2 A; 4 outputs 2 A		MASI65 DI4/0.2A DO4/0.5A Y 8xM12 4 inputs 0.2 A; 4 outputs 0.5 A		MASI65 DI4/0.15A DO3/2A AB Y 7xM12 4 inputs 0.15 A; 3 outputs 2 A AB-Slave		MASI65 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							

MASI65 VALVE PLUG

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

IP67 Protection

Module diagnostic to
AS-Interface specification

MASI65 DI2/0.2A DO2/2A VA
2 inputs 0.2 A; 2 outputs 2 A

MASI65 DO2/2A VA
2 outputs 2 A

MASI65 DO1/2A VA
1 Ausgang 2 A

MASI65 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

MASI65 DI2/0.2A DO2/2A VBI
2 inputs 0.2 A; 2 outputs 2 A

MASI65 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			

MASI67 M8

**Digital inputs
AB-Slave**

IP67 Protection

**Module diagnostic to
AS-Interface specification**

MASI67 DI4/0.2A AB 4xM8
4 inputs 0.2 A; AB-Slave

MASI67 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**

MASI67 DI4/0.2A DO3/0.5A AB 7xM8
4 inputs 0.2 A; 3 outputs 0.5 A; AB-Slave

MASI67 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			

MASI67 M12

**Digital inputs
AB-Slave**

IP67 Protection

**Module diagnostic to
AS-Interface specification**

MASI67 DI4/0.2A AB 4xM12
4 inputs 0.2 A; AB-Slave

MASI67 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**

**MASI67
DI4/0.2A D03/2A AB 4xM12**
4 inputs 0.2 A; 3 outputs 2 A; AB-Slave

**MASI67
DI4/0.2A D04/2A 4xM12**
4 inputs 0.2 A; 4 outputs 2 A

**MASI67
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					

MASI67 INSTALLATION TECHNOLOGY AND SYSTEM COMPONENTS

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Installation technology

IP67 Protection

	MASI67 Converter 7/8"		MASI67 Converter M12		MASI67 Connection or distributor	
	representative illustration - female		representative illustration - female			
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

MASI67 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

MASI67 Repeater		MASI 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	

MASI68 M8

Digital inputs
Digital inputs/digital outputs

IP68 Protection

Module diagnostic to
AS-Interface specification

MASI68 DI8/0.2A AB 8xM8
8 inputs 0.2 A; AB-Slave

MASI68 DI4/0.2A DO3/0.5A AB 7xM8
4 inputs 0.2 A; 3 outputs 0.5 A; AB-Slave

MASI68 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					

MASI68 M12

Digital inputs
Digital inputs/digital outputs

IP68 Protection

Module diagnostic to
AS-Interface specification

MASI68 DI4/0.2A Y AB 4x M12
4 inputs 0.2 A; AB-Slave

MASI68 DI8/0.24A AB 4xM12
8 inputs 0.24 A; AB-Slave

MASI68 DI4/0.2A DO4/2A Y 8xM12
4 inputs 0.2 A; 4 outputs 2 A
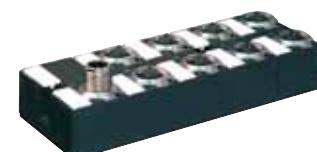
| Ordering data	Approvals	Art.-No.	Approvals	Art.-No.	Approvals	Art.-No.
4 digital inputs	cULus, AS-Interface	**56421**				
8 digital inputs			cULus, AS-Interface	**56424**		
4 digital inputs/4 digital outputs					cULus, AS-Interface	**56422**
System connection						
Communication and module supply	via 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	

MASI K3 M12

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| Digital inputs/ safe digital outputs AB-Slave

Module diagnostic to AS-Interface specification

MASI67 DI4/0.2A DO4/1.6A AB K3 4xM12
4 inputs 0.2 A; 4 outputs 1.6 A; AB-Slave

MASI67 DI8/0.34A DO8/1.6A AB K3 8xM12
8 inputs 0.2 A; 8 outputs 1.6 A; AB-Slave
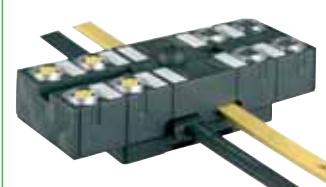
MASI68 DI4/0.2A DO4/1.6A AB Y K3 8xM12
4 inputs 0.2 A; 4 outputs 1.6 A; AB-Slave

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 mm²	**55743**
	black, 2 x 1.5 mm²	**55744**
Mounting bracket	for AS-Interface profile cable	**55742**

55749

55745

55732

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**

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