

I/O modules

- integrated AS-Interface
- pluggable bus connector

Protection IP00

MASI00 DI4 DO4 0.2A



Connection cable



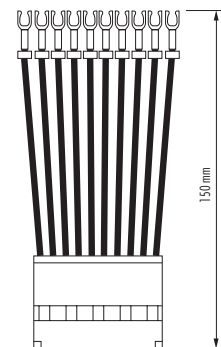
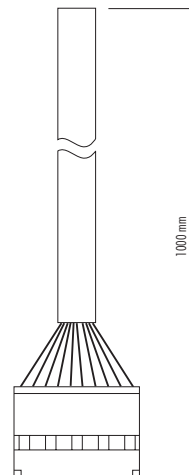
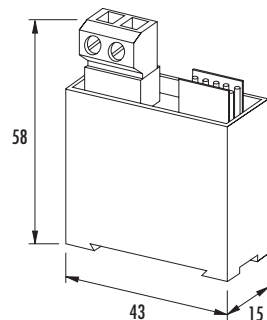
Connection cable

with fork terminal ends



Ordering data	Art.-No.	Art.-No.	Art.-No.
4 digital inputs/outputs	55700		
1 m cable		556510	
150 mm cable			556511
Technical data			
AS-Interface current usage	max. 250 mA		
Supply voltage inputs/outputs	via AS-Interface bus		
Current usage inputs/outputs	max. 200 mA		
Addressing	1...31 via plug terminals		
Profile (IO/ID/ID2 code)	S-7.F.F		
Inputs			
Number of	4		
Type	for standard switches		
Sensor supply	max. 200 mA		
Short-circuit protection	electronically 200 mA		
LED indicator	–		
Outputs			
Number of	4		
Current usage per output	max. 25 mA		
Combined current	max. 200 mA		
Switching frequency	max. 100 Hz at resistive load		
Switch off time by short-circuit	approx. 50 ms		
General data			
Connection technology	Bus: plug-in screw terminals 0.2...2.5 mm ²		
Temperature range	0...+55 °C		
Mounting method	DIN-rail mounting to EN 60715		
Weight	approx. 50 g		
Dimensions	58 x 43 x 15 mm		

Dimension drawing



Notes

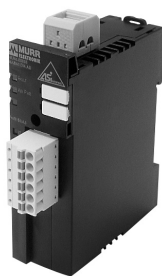
I/O modules

- all connections pluggable
- integrated addressing socket
- DIN-rail mounting to EN 60715

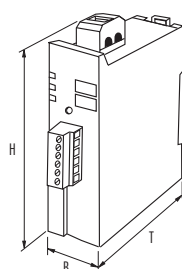
Protection IP20

MASI20 DI4/0.17A AB

4 Inputs 0.17 A; AB-Slave



Ordering data	Art.-No.
4 Inputs	55688
Technical data	
AS-Interface bus voltage	26.5...31.6 V DC
AS-Interface current usage	250 mA
Supply voltage inputs/outputs	24 V
Addressing	via integrated address port or master, pre-adjusted to address 0
Address range	1...62 (1...31 A or B)
Profile (I0/ID/ID2 code)	S-0.A.0
Inputs	
Number of	4
Switching voltage	'0': 0...5 V; '1': 11...30 V
Input voltage/current	24 V/10 mA
Sensor supply (combined current)	170 mA
Short-circuit protection	electronically
LED indicator	yellow LED
Outputs	
Number of	–
Current usage per output	–
Combined current	–
Switching frequency	–
LED indicator	–
Diagnostic	
Green LED/red LED	coded to AS-Interface, specification 2.11 (watchdog, sensor supply, short-circuit and overload protected)
General data	
Connection technology AS-Interface	isolation connectors 0.5...0.75 mm ²
Connection technology sensor/actuator	spring clamp terminals 0.14...1.5 mm ²
Temperature range	-20...+60 °C
Mounting method	DIN-rail mounting to EN 60715
Weight	70 g
Dimensions H x B x T	91 x 25 x 77 mm (with terminals)
Dimension drawing	



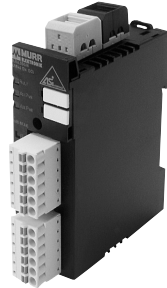
Notes
Up-to-date files and manuals can be downloaded from www.murrelektronik.com . Accessories can be found in chapter 2.10.

I/O modules

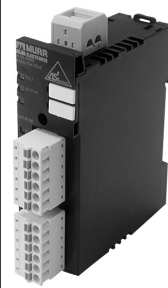
- all connections pluggable
- integrated addressing socket
- DIN-rail mounting to EN 60715

Protection IP20

**MASI20
DI4/0.2A DO3/0.5A AB**
4 inputs 0.2 A
3 outputs 0.5 A; AB-slave



**MASI20
DI4/0.17A DO3R AB**
4 inputs 0.17 A
3 relay outputs; AB-slave



**MASI20
DI4/0.2A DO4/0.5A**
4 inputs 0.2 A
4 outputs 0.5 A



**MASI20
DI4/0.2A DO4R**
4 inputs 0.2 A
4 relay outputs



Ordering data	Art.-No.	Art.-No.	Art.-No.	Art.-No.
4 Inputs / 4 solid state outputs			55686	
4 Inputs / 4 relay outputs				55685
4 Inputs / 3 solid state outputs	55687			
4 Inputs / 3 relay outputs		55768		
Technical data				
AS-Interface bus voltage	26.5...31.6 V DC			
AS-Interface current usage	max. 50 mA	250 mA	50 mA	300 mA
Supply voltage inputs/outputs	24 V	via AS-Interface bus	24 V	via AS-Interface bus
Addressing	via integrated address port or master, pre-adjusted to address 0			
Address range	1...62 (1...31 A or B)		1...31	
Profile (IO/ID/ID2 code)	S-7.A.E		S-7.0.E	
Inputs				
Number of	4			
Switching voltage	'0': 0...5 V; '1': 11...30 V			
Input voltage/current	24 V/10 mA			
Sensor supply (combined current)	external (200 mA)	≤ 170 mA from AS-Interface bus	external (200 mA)	≤ 200 mA from AS-Interface bus
Short-circuit protection	electronically			
LED indicator	yellow LED			
Outputs				
	Relay			
Number of	–	3	–	4
Current usage per output	–	max. 2 A	–	max. 2 A
Combined current	–	max. 4.5 A	–	max. 4.5 A
Switching frequency	–	0.1 Hz	–	0.1 Hz
LED indicator	–	yellow LED	–	yellow LED
	Solid state			
Number of	3	–	4	–
Current usage per output (short-circuit protected)	0.5 A	–	0.5 A	–
Combined current	max. 2 A	–	max. 2 A	–
Switching frequency	500 Hz	–	500 Hz	–
Switch off time by short-circuit	approx. 20 ms	–	approx. 20 ms	–
LED indicator	yellow LED	–	yellow LED	–
Diagnostic				
Green LED/red LED	coded to AS-Interface, specification 2.11 (watchdog, sensor supply, short-circuit and overload protected)			
General data				
Connection technology AS-Interface/power	isolation connectors 0.5...0.75 mm ²			
Connection technology sensor/actuator	spring clamp terminals 0.14...1.5 mm ²			
Temperature range	-20...+60 °C			
Mounting method	DIN-rail mounting to EN 60715			
Dimensions H x T x B / weight	91 x 25 x 77 mm (with terminals) / 95 g			
Dimension drawing				
Notes				
Up-to-date files and manuals can be downloaded from www.murrelektronik.com . Accessories can be found in chapter 2.10.				

System components
Single-phase, primary switch mode

Supply voltage for AS-Interface

Touch protected to EN 60529 (IP20)

Approvals:



MASI - 2.8

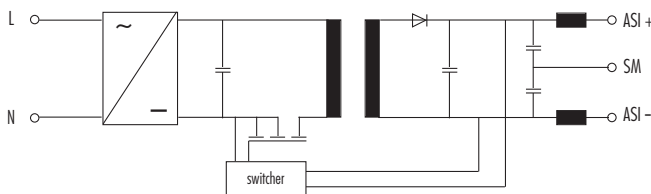
Input voltage 115 V AC



MASI - 2.8

Input voltage 230 V AC

Circuit diagram



Ordering data

output rating
30.5 V DC/2.8 A 85.4 W

Art.-No.

85425

Art.-No.

85424

Input

Input voltage	115 V AC	230 V AC
Input current	1.3 A	0.8 A
Inrush	< 14 A	< 20 A
Safety	max. 10 A T	
Frequency	50/60 Hz	

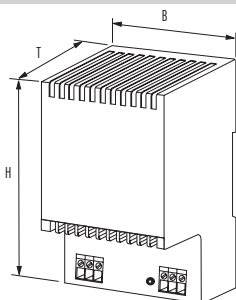
Output

Output voltage	30.5 V DC SELV \pm 3 %
Max. output current	2.8 A
Efficiency	0.85
Mains failure bridging	> 30 ms (115 V AC) > 30 ms (230 V AC)
Ripple	< 50 mV _{ss}
Protection	overload and short-circuit protected
LED-indicator	green LED for output voltage
Output filter	filter to AS-Interface specification

General data

Guideline	EN 60950-1, EN 61204-3, EN 55022 B
Temperature range	-10...+60 °C
Mounting method	DIN-rail mounting to EN 60715 (TH35)
AS-Interface	the unit meets AS-Interface requirements for power supplies (PELV)
Weight	0.71 kg
Dimensions H x B x T	153 x 103 x 70 mm

Dimension drawing/Dimensions



Notes

MASI - 2.8 primary switch mode meets the EN 61000-3-2 guideline.

System components
Single-phase, primary switch mode

Supply voltage for AS-Interface

Touch protected to EN 60529 (IP20)

Approvals:



MCS-A 4

Input voltage 95...265 V AC

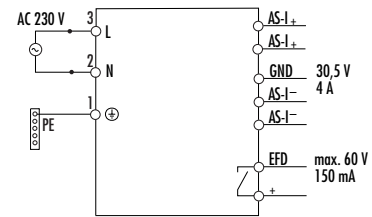
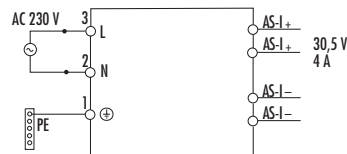


MCS-A 4 EFD

Input voltage 95...265 V AC



Circuit diagram



Ordering data

output rating
30.5 V DC/4 A 122 W

Art.-No.

85381

Art.-No.

85382

Input

Input voltage 95...265 V AC
Input current 2.1 A at 110 V AC
Inrush current to 1 ms typ. \leq 35 A at 230 V AC
Safety max. 10 A T
Frequency 50/60 Hz

Output

Output voltage 30.5 V DC SELV \pm 2 %
Max. output current 4.0 A (40 °C) ... 3.4 A (55 °C)
Efficiency 0.85/240 V AC
Mains failure bridging > 14 ms typical/110 V AC
Ripple < 20 mV eff
Protection overload and short-circuit protected
LED-indicator green LED for output voltage
Output filter filter to AS-Interface specification
Earth fault detection (EFD) no

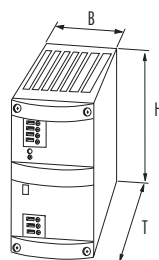
yes

General data

Guideline EN 60950-1, EN 61204-3, EN 55022 B
Temperature range 0...+40 °C
Mounting method DIN-rail mounting to EN 60715 (TH35)
AS-Interface the unit meets AS-Interface requirements for power supplies (PELV)
Weight 0.6 kg
Dimensions H x B x T x TA ¹⁾ 115 x 54 x 147 mm

115 x 54 x 147 x 16¹⁾ mm

Dimension drawing/Dimensions



¹⁾ TA = Terminal block depth

Notes

Mounting adapter for side mounting see page 4.9.2

System components for AS-Interface/Profibus-DP

with diagnostic
with graphical display

Protection IP20

Gateway single master



Gateway single master metal housing



Gateway double master metal housing

Ordering data	Art.-No.	Art.-No.	Art.-No.
Gateway AS-Interface/Profibus-DP AS-I specification 2.1	55707	556612	556616

AS-Interface

Tested supply current	≤ 200 mA of AS-Interface circle		
Tested supply voltage	26.5...31.6 V DC		
Cycle time	150 μs x (number of slaves + 1)		
Bus connection	via screw terminals on the front	via spring clamp terminals on the front 0.2...2.5 mm ²	
Max. number of slaves	62	62	2 x 62

Profibus

Type	Profibus-DP slave		
Bus connection	SUB-D 9-pole		
Profibus interface	to DIN 19245 part 3		
Data rates	9.6...12000 kBaud, automatic detection		
Addressing	via buttons on the gateway or Profibus-DP addresses 1...126 adjustable (default 3)		
Profibus-DP functions	illustration of AS-Interface slaves as I/O process data in Profibus-DP, full diagnostic configuration via DP-master		
Button	4 (mode/set/OK/ESC)		

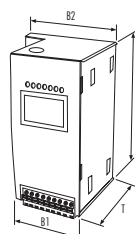
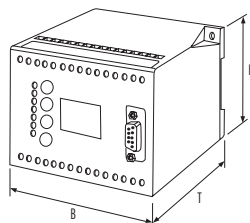
Display

Graphical display	<ul style="list-style-type: none"> - AS-Interface slave addresses - error messages - operating mode - I/O data - system, parameter and diagnostic data 		
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General data

Tested isolation voltage	≥ 500 V		
EMC	to EN 50082, EN 50081		
Temperature range	0...+55 °C		
Storage temperature	-25...+85 °C		
Housing	plastic	stainless steel	
Mounting method	DIN-rail mounting to EN 60715		
Dimensions H x B (B1) x (B2) x T	75 x 110 x 100 mm	120 x 55 x 75 x 70 mm	
Weight	450 g	470 g	

Dimension drawing



Accessories

RS 232/RS 485 converter	using software tools to operate Profibus/AS-Interface gateways via a serial PC interface	55716
AS-Interface control tools	simple planning, diagnostic and commissioning of AS-Interface systems via PC Profibus gateway	55717
Profibus data cable		55770
Profibus connector	up to 12 MBit/s with switchable terminators	55762

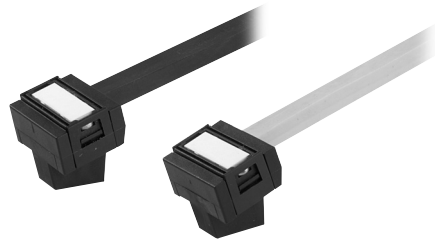
Notes

Other gateways on request. Up-to-date files and manuals can be downloaded from www.murrelektronik.com

Installation technology for AS-Interface

Plug-in terminal

Protection IP20



Ordering data

Art.-No.
55604

Technical data

Max. voltage 36 V DC

Max. current/connection –

Max. combined current 8 A

Isolation voltage –

Connection piercing technology

General data

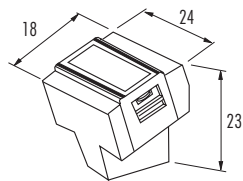
Temperature range -20...+70 °C

Mounting method –

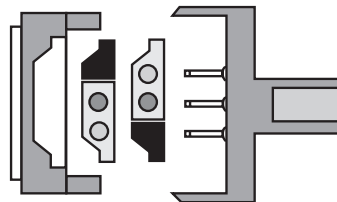
Dimensions 23 x 24 x 18 mm

Weight approx. 8 g

Dimension drawing



Connection diagram

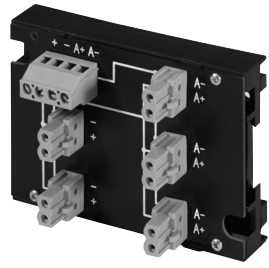


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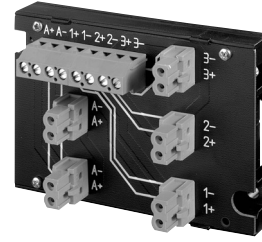
Installation technology for AS-Interface

Protection IP20

Bus and power distributor

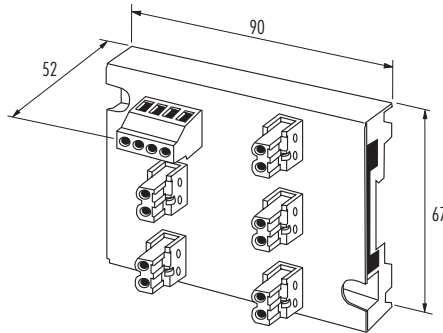


Bus and power distributor

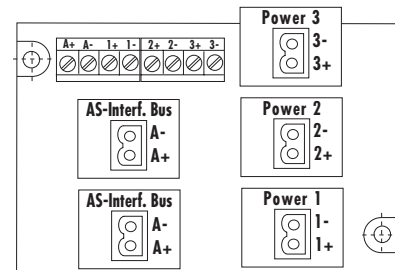
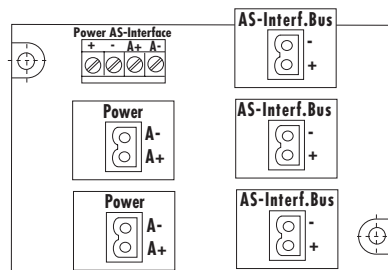


Ordering data		Art.-No.		Art.-No.
	incl. 5 plug terminals	55606	incl. 5 plug terminals	55575
Technical data				
Max. voltage	36 V DC			
Max. current/connection	8 A			
Max. combined current	24 A			
Isolation voltage	AS-Interface/power 200 V, DIN VDE0110, 1989-01 table 4			
Connection	screw terminal, single-core wires (0.25...4 mm ²), stranded wires (0.5...2.5 mm ²)			
General data				
Temperature range	-20...+70 °C			
Mounting method	DIN-rail mounting to EN 60715			
Dimensions	67 x 90 x 52 mm			
Weight	approx. 80 g			

Dimension drawing



Connection diagram

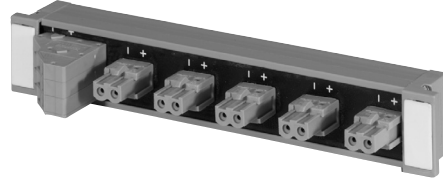


Notes

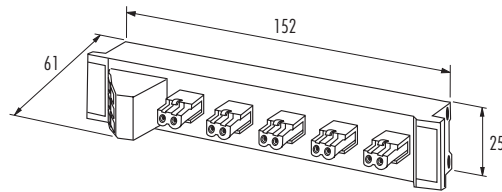
Installation technology for AS-Interface

Bus and power distributor

Protection IP20



Ordering data	Art.-No.	Art.-No.
incl. 5 plug terminals	55605	
without plug terminals	55607	incl. 5 plug terminals
		55611
Technical data		
Max. voltage	36 V DC	
Max. current/connection	8 A	
Max. combined current	12 A	
Isolation voltage	AS-Interface/power 200 V, power/power 50 V, DIN VDE 0110, 1989-01 table 4	
Connection	screw terminal, single-core wires (0.2...2.5 mm ²), stranded wires (0.2...1.5 mm ²)	
General data		
Temperature range	-20...+70 °C	
Mounting method	DIN-rail mounting to EN 60715	
Dimensions	25 x 152 x 61 mm	
Weight	approx. 60 g	
Dimension drawing		



Connection diagram	

Notes

MASI00/20