

New!

Gateway IF09

Connection of SIKO sensors and displays to ProfiBus, InterBus and CAN-Bus

Gateway modules for connecting SIKO sensors and displays to standardized fieldbus systems. Three bus connections are available. SIKO offers a specific transducer for every connection. Thus, up to 31 stations can be connected to Profibus or CAN bus via RS485 interface, for InterBus-S connection of max. 8 stations is possible.

With the IF09 W/1 the interface may be used for baudrate conversion.

Communication between appropriately equipped SIKO devices via gateway is enabled on the basis of SIKO-specific protocols of the type SIKONETZ 3 or 4.

Quick Info

- compact and user-friendly design
- full support of current standard fieldbus systems:
 - IF09 P/1 for ProfiBus DP
 - IF09 I/1 for InterBus-S
 - IF09 C/1 for CAN-Bus
- IF09 W/1 (baudrate converter)
- easy mounting via top-hat rail system according to DIN 55
- power supply: 24 V DC $\pm 20\%$



Specifications/pin assignments

P IF09 P/1 ProfiBus DP

Feature	Ordering data	Technical data
Type	IF09 P/1	
Mounting		top-hat rail (DIN 55)
Supply voltage		24 V DC ±20 %
Power consumption		<1.3 W
Working temperature		0 ... 50 °C
Condensation		not permitted
Type of protection		IP30
Diagnosis		5-digit 7-segment display
Interface controller		SPC3
Encoder supply loading		max. 700 mA
Baud rates		
Encoder side SIKONETZ4		115.2 kBit/s
Encoder side SIKONETZ3		19.2 kBit/s
ProfiBus		19.2 kBit/s–12 MBit/s

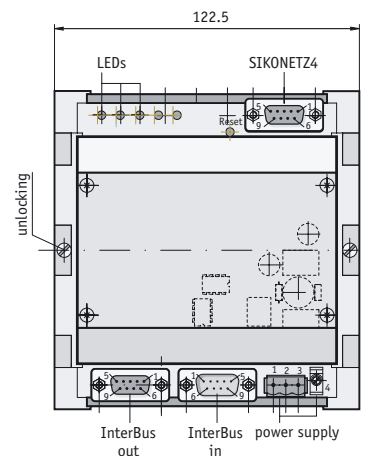
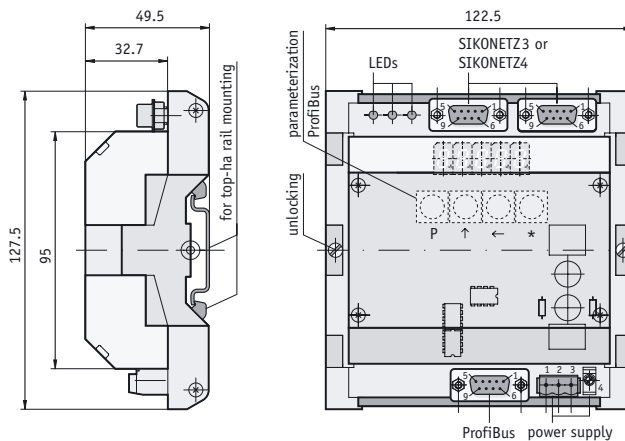
Mating connectors are included in the delivery

I IF09 I/1 InterBus

Feature	Ordering data	Technical data
Type	IF09 I/1	
Mounting		top-hat rail (DIN 55)
Supply voltage		24 V DC ±20 %
Power consumption		<2 W
Working temperature		0 ... 50 °C
Condensation		not permitted
Type of protection		IP30
Diagnosis		5 LEDs
Interface controller		SUPI3
Encoder supply loading		max. 700 mA
Baud rates		
Encoder side SIKONETZ4		115.2 kBit/s
Encoder side SIKONETZ3		on request
InterBus		500 kBit/s

Interface/protocol	S3/00	RS485/standard
	S3/07	RS485/SIKONETZ4

Mating connectors are included in the delivery



SIKONETZ3/SIKONETZ4		ProfiBus	Power supply
RS485			
PIN	Signal		
1	+24 V DC	N.C.	PE (optional)
2	N.C.	N.C.	0V
3	DÜA	B-Line	+24 V ±20 %
4	N.C.	RTS	PE (optional)
5	GND	2M	
6	N.C.	2P5	
7	N.C.	N.C.	
8	DÜB	A-Line	
9	N.C.	N.C.	

SIKONETZ4		InterBus In	InterBus Out	Power supply
RS485				
PIN	Signal	Signal	Signal	
1	+24 V DC	DO	DO	PE (optional)
2	N.C.	DI	DI	GND
3	DÜA	GND1	GND	+UB 24 V DC
4	N.C.	N.C.	N.C.	PE (optional)
5	GND	N.C.	Vcc	
6	N.C.	/DO	/DO	
7	N.C.	/DI	/DI	
8	DÜB	N.C.	N.C.	
9	N.C.	N.C.	RBST	

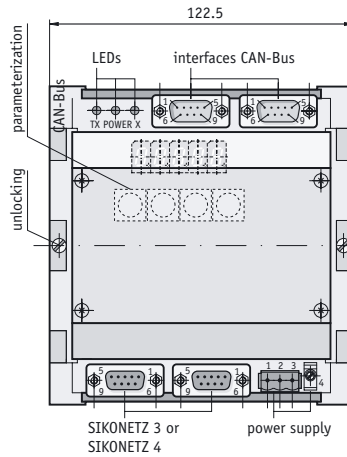
Your order: IF09 P/1

Your order: IF09 I/1 - A

C IF09 C/1
CAN bus

Feature	Ordering data	Technical data
Type	IF09 C/1	
Mounting		top-hat rail (DIN 55)
Supply voltage		24 V DC ±20 %
Power consumption		<5 W
Working temperature		0 ... 50 °C
Condensation		not permitted
Type of protection		IP30
Diagnosis		5-digit 7-segment display
Interface controller		I82527
Encoder supply load		max. 1000 mA
Baud rates		
Encoder side SIKONETZ4		115.2 kBit/s
Encoder side SIKONETZ3		19.2 kBit/s
CAN bus		15.625 kBit/s–1 MBit/s
Protocol	N CO	CAN-Standard CAN-Open

Mating connectors are included in the delivery

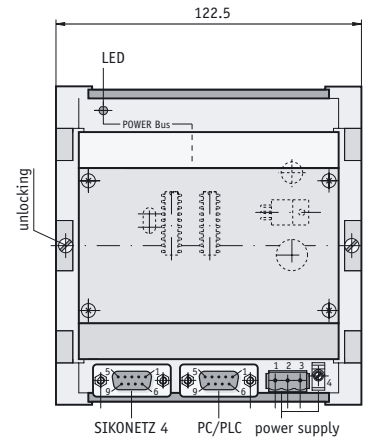


SIKONETZ3/SIKONETZ4		2x CAN supply	Power supply
RS485			
PIN	Signal	Signal	
1	+24 V DC	N.C.	PE (optional)
2	N.C.	CAN-Low	0V
3	DÜA	CAN-Gnd	+24 V
4	N.C.	N.C.	PE (optional)
5	GND	N.C.	
6	N.C.	N.C.	
7	N.C.	CAN-High	
8	DÜB	N.C.	
9	N.C.	N.C.	

W IF09 W/1
Baudrate converter

Feature	Ordering data	Technical data
Type	IF09 W/1	
Mounting		top-hat rail (DIN 55)
Supply voltage		24 V DC ±20 %
Power consumption		<5 W
Working temperature		0 ... 50 °C
Condensation		not permitted
Type of protection		IP30
Diagnosis		1 LED
Interface controller		n.a.
Encoder supply load		max. 1000 mA
Baud rates		
Encoder side SIKONETZ4		115.2 kBit/s
Fieldbus		9600 Bit/s or 19.2 kBit/s
Interface/protocol	S1/00 S2/00 S3/01	A RS232 RS422 RS485
Data transfer	19200 9600	B 19.2 kBit/s 9600 Bit/s

Mating connectors are included in the delivery



SIKONETZ4		PC/PLC	Power supply
RS485			
PIN	Signal	Signal	Signal
1	+24 V DC	N.C.	N.C.
2	N.C.	TX	DÜA (TX)
3	DÜA	RX	DÜA (RX)
4	N.C.	N.C.	N.C.
5	GND	GND	GND
6	N.C.	N.C.	N.C.
7	N.C.	N.C.	DÜB (TX)
8	DÜB	N.C.	DÜB (RX)
9	N.C.	N.C.	N.C.

Your order: IF09 C/1 -

Your order: IF09 W/1 - -

Special Features

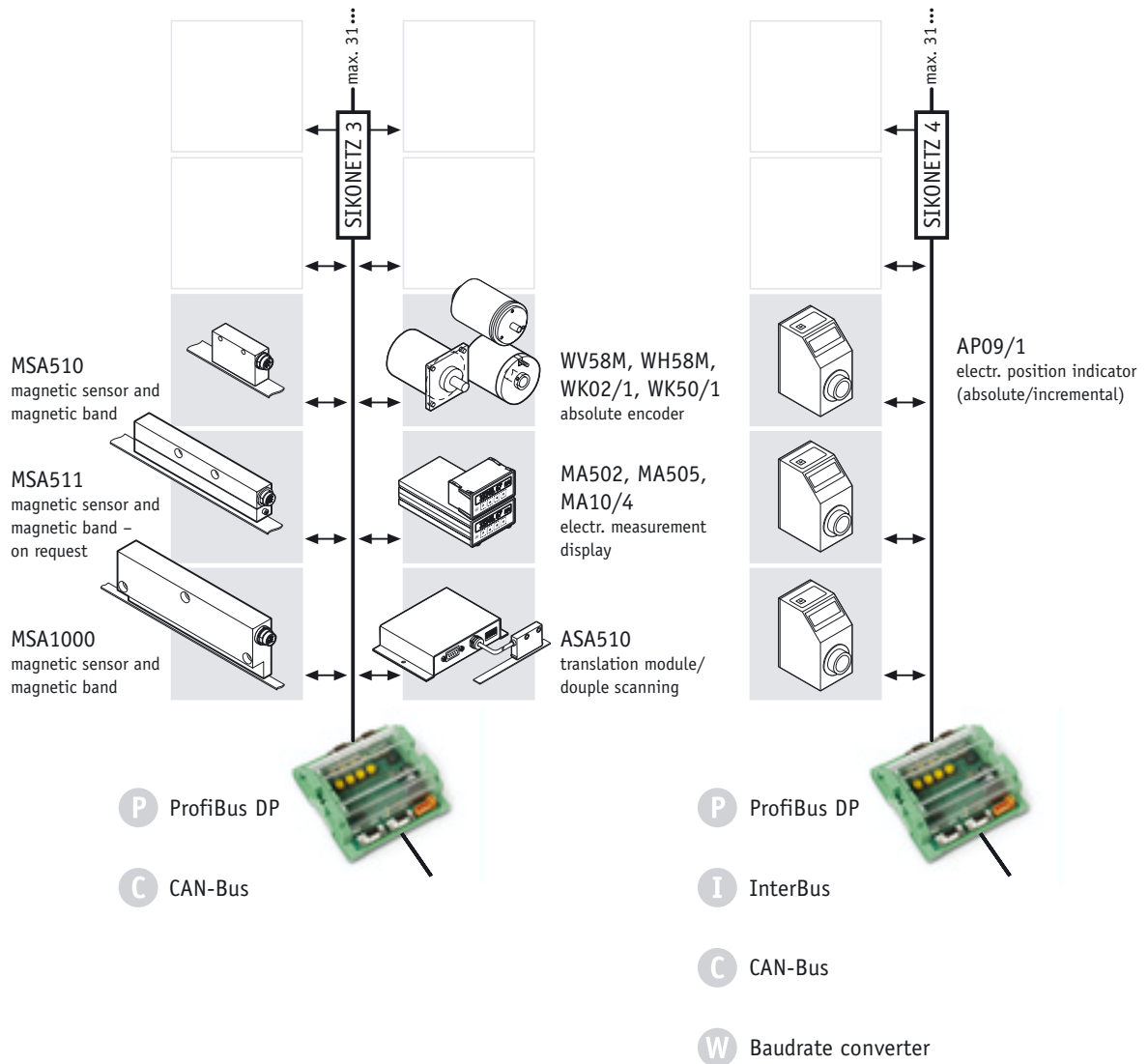
- P ProfiBus DP:**
- Configuration with SIK000EC.GSD device data file
 - SIKONETZ3 or SIKONETZ4, resp. are selected by setting parameters. Counter-check via integrated display
 - 8 bytes + $n * 4$ bytes ($n = 1 \dots 31$) are transferred during cyclic data exchange.
The first 8 bytes serve as an interface for parameterization of the connected encoders during operation
- I InterBus:**
- During start-up, the IF09 I/1 determines the number of encoders connected
 - The data width of the IF09 I/1 is set on the basis of the stations found
 - The minimum data width has a length of 4 bytes (1 encoder) and the maximum data width has a length of 32 bytes (8 encoders)
 - The data format corresponds to the K3 encoder profile
- C CAN-Bus**
- 2 CAN protocols are supported alternately: CAN-Standard und CAN-Open
 - SIKONETZ3 or SIKONETZ4, resp., are selected by setting parameters. Counter-check via integrated display
 - SDO-PDO data traffic
 - Configuration via EDS file (only CAN-Open)
- W Baud rate converter**
- Connection of up to 31 AP09/1s to one PC or PLC possible
 - Adaptation of the baud rate of the AP09/1 (15.2 kbit/s) to the output baud rate possible (see nameplate)
 - Interface PC/PLC optionally RS422 or RS485
 - Input and output protocols are identical

Special solutions

Adaptation to customer-specific communication protocols on request.

Functioning

The IF09 gateway family connects up to 31 SIKO sensors gathering the angle of rotation or measuring lengths, respectively, to a superior standard fieldbus system. The communication of the gateway with the individual sensors is enabled by a SIKO-specific data protocol (SIKONETZ).



Type	P	I	C	W
SIKONETZ3 station	31	8**	31	-
SIKONETZ4 station*	31	8	31	31

*only AP09 **on request



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