

AS-i 3.0 Analog Module: Analog Input and Output Module (M12)

**Bihl
+ Wiedemann**

**1 analog Input/1 analog Output
4 ... 20mA or 0 ... 10V in one Module**

Automatic switching between current and voltage

**8, 12 or 16 transmitted bits
via 2, 3 or 4 AS-i slave address**

AS-i Profile S-6.0.x

Protection category IP20



Article no. BW2518: 1I/1O 4 ... 20mA or 0 ... 10V (24V external on M12)

The analog module has 1 analog input and 1 analog output. Current or voltage modules can be attached over M12 connectors. The module switches automatically over between current and voltage depending upon the occupied socket. The current supply is made out of an external voltage supply according to PELV.

The conversion of the measured value and the data transmission via AS-i occurs according to AS-i Profile S-6.0.x. The resolution of the analog data is 16 bit. The analog modules contains 50 Hz and 60 Hz filters. These filters can be optionally activated with the help of the AS-i parameters.

Optical addressing is not possible.

Article no.	BW2518
Supply	24V external on M12 1A out of external 24V
Outputs	0 ... 20mA or 0 ... 10V
Inputs	4 ... 20mA or 0 ... 10V
Internal resistance	50 Ω or 100 kΩ
Max. input current or max. input voltage	40mA or 25V
Resolution	16 Bit/1 μA or 16 Bit/1 mV
AS-i Profile	S-6.0.x
Number of transmitted bits	8, 12, 16
Impedance	2 slaves
ID Code	0 _{hex}
ID2 Code	according to profile
IO Code	6 _{hex}
Display	
LED green (PWR)	AS-i voltage
LED red (FAULT)	AS-i communication error, peripheral fault
LED green (AUX)	voltage supply 24V for the analog part
LED yellow (In U)	state of input U
LED gelb (In I)	state of input I
LED gelb (Out U)	state of output U
LED gelb (Out I)	state of output I
Operating current	< 200mA
Operating voltage	AS-i (30V DC)
Voltage of insulation	≥ 500V
EMC directions	according to EN 61 000-6-2 EN 61 000-6-4
Operating temperature	0°C ... +70°C
Storage temperature	-20°C ... +85°C
Housing	housing for DIN-rail mounting
Dimensions (L, W, H in mm)	80 / 90 / 43
Protection category DIN 40 050	housing IP65

Code definition:

IO Code 6

ID Code 0

ID1 Code:

- The ID Code 1 can be written for all slaves, but only the slave with the lowest address defines the code for the remaining slaves.
- The Code ID1 is equal for all slaves.
- The Code ID2 for all slaves (for each different according to the profile) is specified by the ID1 code.

Number of associated AS-i slaves

ID1 = A: 2 AS-i slaves according to 8 bits
(default)

ID1 = B: 3 slaves according to 12 bits
oder: 4 slaves according to 16 bits

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...

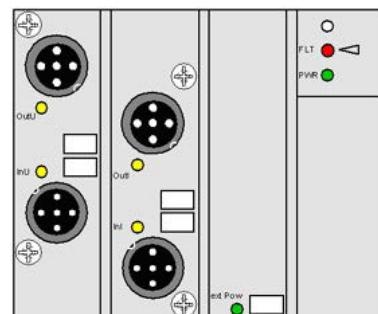
Programming

ID2-Code				
	Adr n	Adr n+1	Adr n+2	Adr n+3
2 slaves = 8 Bit	A	5	-	-
3 slaves = 12 Bit	B	6	5	-
4 slaves = 16 Bit	C	7	6	5

Parameter (first address)		
Parameter	Name	Description
P0	Auto/Fix	1: automatic switching between current and voltage 0: current/voltage specified by P1
P1	Out U/I	If P0 = 0: 1: OutU active 0: OutU active, else not used
P2	Peripheral fault	1: peripheral fault is indicated 0: peripheral fault is not indicated
P3	In U/I	If P0 = 0: 1: InI active 0: InU active else not used

Parameter (second address)		
Parameter	Name	Description
P1, P0	Conversion rate InI, InU	11: fastest: 1 ms/8 bits 01: medium fast/precise: 5 ms/12 bits 10: highest precision: 20 ms/16 bits 00: not used
P2	Format	1: 10V = 10000, 20mA = 2 0000 0: 10V = 27648, 20mA = 27648 (Siemens format)
P3	Bridge	1: Pin 3 and Pin 4 bridged internal, 2-3 conductor 0: Pin 3 and Pin 4 not bridged, 4 conductor

Connection



No.	InI, InU	OutI, OutU
1	+24 V	Sig+
2	Sig+	24 V
3	0 V	Sig-
4	Sig-	0 V
5	Shield	Shield

Accessories:

- AS-i substructure module to connect 2 AS-i flat cables (art. no. BW1180)
- AS-i substructure module to connect 1 AS-i flat cable, 1 flat cable for additional supply (art. no. BW1181)
- AS-i substructure module to connect 2 AS-i round cable (art. no. BW1182)
- AS-i substructure module to connect 1 AS-i round cable, 1 round cable for additional supply (art. no. BW1183)
- AS-i substructure module to connect 2 AS-i flat cables with addressing socket (art. no. BW1438)