

AS-i Counter Module

1 x 2-channel input

Protection category IP20



(figure similar)

The AS-i Counter Module has inputs for standard sensors (24 V, pnp, push-pull). The module counts the impulses with the 2-channels up- and downwards and outputs the result as 16 bit value (-32768 ... 32767) via AS-i. The start value is -30768.

With the help of parameters the module can be set to zero as well as the counting direction can be defined. Different pre-divi-

sors are available, which can be select via AS-i parameters as well.

The module reports a peripheral fault at counter overflow (under-flow).

Article no.	BWU3097
Connection	
AS-i/AUX connection	COMBICON plugs
Periphery connection	COMBICON plugs
AS-i	
Profile	S-7.3.C
Address	1 single slave
Required Master profile	≥M3
As of AS-i specification	2.1
Operating voltage	30 V (18 ... 31,6 V)
Max. current consumption	< 100 mA
AUX	
Operating voltage	24 V (18 ... 30 V)
Max. current consumption	max. 150 mA
Input	
Number	1 x 2-channel
Power supply	out of AUX
Power supply of attached sensors	max. 1 A
Range of values	-32768 ... +32767 dec. (start value: -30768)
Counting rate	max. 20 kHz

AS-i Counter Module in IP20, 22,5 mm

Article no.	BWU3097
Display	
LED AS-i (green)	on: AS-i voltage on flashing: AS-i voltage on, but peripheral fault ⁽¹⁾ or address 0 off: no AS-i voltage
LED FLT/FAULT (red)	on: slave address 0 or slave offline flashing: peripheral fault ⁽¹⁾ off: slave online
LED AUX (green)	on: 24 V _{DC} AUX off: no 24 V _{DC} AUX
LED I1 (yellow)	state of counter input I1
Environment	
Applied standards	EN 61 000-6-2 EN 61 000-6-3
Operating altitude	max. 2000 m
Ambient temperature	0°C ... +55°C
Storage temperature	-25°C ... +85°C
Housing	plastic, for DIN rail mounting
Protection category (EN 60529)	IP20
Insulation voltage	≥500 V
Weight	145 g
Dimensions (W / H / D) in mm	22,5 / 99,6 / 114

⁽¹⁾ See table "Peripheral fault indication"

Article no.	Peripheral fault indication		
	Overload sensor supply	Counter overflow/underflow	AUX voltage missing
BWU3097	•	•	•

Connections and controls			
Article no.	Marking	Explanation	
BWU3097	AUX+ _{1 ext.out} , AUX- _{1 ext.out} , AUX+ _{2 ext.out} , AUX- _{2 ext.out}	power supply, out of external voltage (AUX, sensor supply)	
	IA1	input signal (channel A)	
	IB1	input signal (channel B)	
	IA2, IA3, IA4	reserved (do not connect sensors)	
	IB2, IB3, IB4	reserved (do not connect sensors)	
	AS-i+, AS-i-	connection to AS-i bus	
	AUX+ _{ext.in} , AUX- _{ext.in}	power supply, out of external voltage	
	SEL	rotary selector switch (reserved)	
	ADDR	connection for AS-i addressing device	

Programming (AS-i parameters)

Operation mode 1 x 2-channels

Bit P0	Parameter
1	count upwards ln 1
0	count downwards ln 1

Bit P1	Parameter
1	counter ln 1
0	set zero ln 1

Bit P3	Bit P2	Parameter
1	1	no pre-divisor
1	0	pre-divisor = 2
0	1	pre-divisor = 8
0	0	pre-divisor = 32



Start value:

At power-up, all the counter with 0x87D0 (-30768) are initialized to indicate that there is no zero-setting.