

2 x 1-Channel Input Module

Impulse counter

High protection category IP67



(Figure similar)



Article no. BWU3453 ASi Counter Module, IP67, M12, 2 x 1-Channel Input Module

The ASi Counter Module has 2 inputs for standard sensors.

The module counts impulses up- or downwards and gives the result as a 16 bit value (-32768 ... 32 767) via ASi. Upon reaching the upper (lower) limit the counter makes a roll-over and continues the counting.

The start value is -32768.

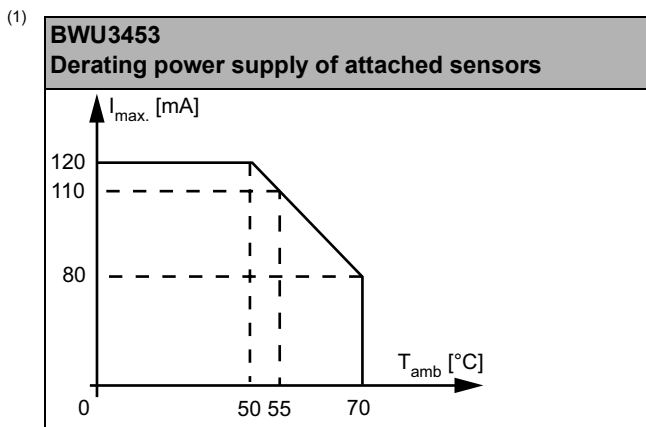
With the help of parameters the module can be set to start value (P0) as well as the counting direction can be defined (P3).

With parameter P1 and P2 can each of the 2 channels be turned off.

As long as the ASi parameter P0=0 is set the counting is stopped and the counter keeps the start value.

Article No.	BWU3453	
General data		
Device type	input	
Connection		
ASi/AUX connection	profile cable and piercing	
Periphery connection	M12	
ASi		
Profile	S-7.3.D	
Address	1 single address	
Required Master profile	≥M3	
As of ASi specification	3.0	
Operating voltage	30 V _{DC} (18 ... 31,6 V)	
Max. current consumption	165 mA	
Max. current consumption without sensor/ actuator supply	45 mA	
Input		
Number	2	
Counting rate	max. 4 kHz	
Range of value	impulse: -32768 ... 32767 dec. (start value: -32768)	
Power supply	out of ASi	
Power supply of attached sensors	up to +50 °C	120 mA ⁽¹⁾
	at +55 °C	110 mA ⁽¹⁾
	at +70 °C	80 mA ⁽¹⁾

Article No.	BWU3453
Display	
LED ASi (green)	on: ASi voltage on flashing: ASi voltage on, but peripheral fault ⁽²⁾ or address 0 off: no ASi voltage
LED FAULT (red)	on: ASi address 0 or ASi participant offline flashing: peripheral fault ⁽²⁾ off: ASi participant online
LED I1, I2 (yellow)	on: counter input channel 1, 2 active
Environment	
Applied standards	EN 61000-6-2 EN 61000-6-4 EN 60529
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +55 °C (up to max. +70 °C) ⁽¹⁾ ⁽³⁾
Storage temperature	-30 °C ... +85 °C
Housing	plastic, for DIN rail mounting
Protection category	IP67
Max. tolerable shock load	30g, 11 ms, acc. EN 61131-2
Max. tolerable vibration stress	5 ... 8 Hz 50 mm _{pp} /8 ... 500 Hz 6g, acc. EN 61131-2
Insulation voltage	≥500 V
Weight	100 g
Dimensions (W / H / D) in mm	45 / 80 / 42



(2) See table "Peripheral fault indication"

(3) Maximum ambient operating temperature +55 °C according UL certificate for the use in the USA and Canada

Article no.	Peripheral fault indication		
	counter overflow/underflow	status input channel 1 or 2 invalid (low level)	frequency too high
BWU3453	-	•	-

Programming (Bit-setting of ASi parameters)

Bit	P0: Operation	P1: Channel 1	P2: Channel 2	P3: Counting direction
0	set to start value (-32768)	channel 1 off	channel 2 off	count downwards
1	normal operation	channel 1 on	channel 2 on	count upwards

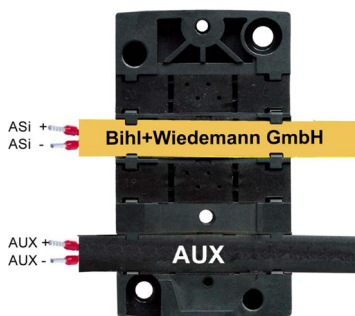
Pin assignment

Signal name	Explanation
channel x +	counter input x
24V _{out} of ASi	power supply, out of ASi, positive pole (sensor supply)
0V _{out} of AS-	power supply, out of ASi, negative pole (sensor supply)
status input channel x	OK signal of sensor (high level = sensor OK, low level = sensor fault indication)
Shield	shield

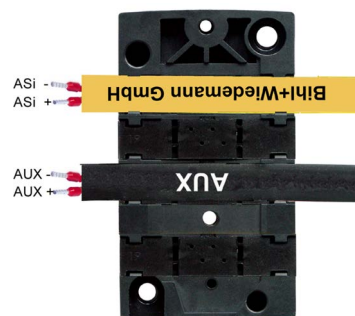
Connections							
Article no.	M12 connection	Marking	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3453	X1	I1	24 V _{out} of ASi ⁽¹⁾	status input channel 1 ⁽¹⁾	0 V _{out} of ASi	channel 1 +, pulse input	shield
	X2	I2	24 V _{out} of ASi ⁽¹⁾	status input channel 2 ⁽¹⁾	0 V _{out} of ASi	channel 2 +, pulse input	shield
	X3	rotary switch (no function)					
	X4	not used					
	ADDR (dummy plug)	connection for ASi-3 addressing device					

(1) To use sensors without status output Pin2 (status input) has to be bridged with Pin1 (24 V).

Mounting according to cable direction

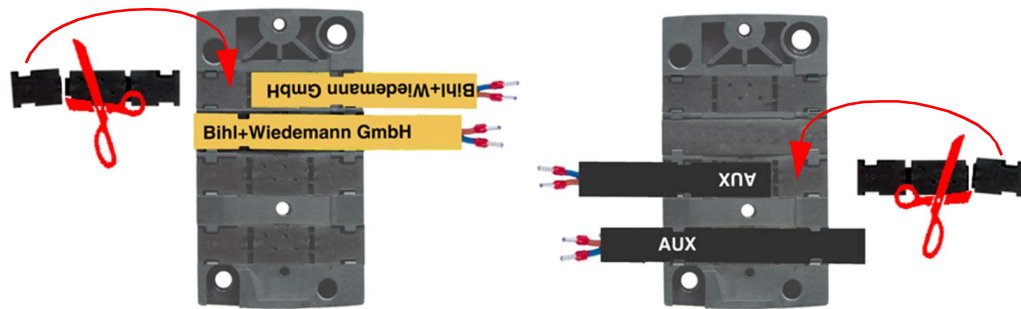


ordinary



turned

Line termination with sealing profiles / as junction



Accessories:

- ASi substructure module for 4 channel module in 45 mm housing (art. no. BW2349)
- ASi substructure module (CNOMO) for 4 channel module in 45 mm housing (art. no. BW2350)
- Universal protection cap ASi-5/ASi-3 for M12 sockets, IP67 (art. no. BW4056)
- Sealing profile IP67 (IDC plug), 45 mm (art. no. BW3283)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4708)