

Special variants on request



(Figure similar)

Figure	Circuit board dimensions (1)	Inputs digital	Outputs digital	Inputs analog	Connection (2)	Coated (3)	LED status display (4)	Input voltage (sensor supply) (5)	Output voltage (actuator supply) (6)	AS-i address (7)	Art.no.
	29,7mm x 36,5mm	1	1 x	–	wiring pins, straight	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR1566</b>
	29,7mm x 36,5mm	2	2 x electronic	–	solder lugs	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR1421</b>
	29,7mm x 36,5mm	2	2 x electronic	–	wiring pins, straight	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR3189</b>
	29,7mm x 36,5mm	2	2 x electronic	–	solder lugs, screw terminals only to AS-i pins	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR1957</b>
	29,7mm x 36,5mm	2	2 x electronic	–	screw terminals	no	no	out of AS-i	out of AS-i	1 AB slave Profile: S-7.A.7.E	<b>BWR2782</b>
	29,7mm x 36,5mm	2	2 x electronic	–	screw terminals	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR1443</b>
	29,7mm x 36,5mm	2 (input mirrored)	2 x electronic	–	screw terminals	yes	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR2393</b>
	73mm x 37,5mm	4	3 x electronic	–	solder lugs	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR1408</b>
	73mm x 37,5mm	4	3 x electronic	–	solder lugs	no	yes	out of AS-i	out of AUX	1 AB slave	<b>BWR1682</b>
	73mm x 37,5mm	4	3 x electronic	–	plug-in spring-type terminals	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR2229</b>
	73mm x 37,5mm	4	3 x electronic	–	screw terminals	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR1387</b>
	73mm x 37,5mm	4	3 x electronic	–	wiring pins, angled	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR1386</b>
	73mm x 37,5mm	4	4 x electronic	–	solder lugs	no	no	out of AS-i	out of AS-i	1 single slave	<b>BWR2052</b>
	73mm x 37,5mm	4	4 x electronic	–	solder lugs	no	yes	out of AS-i	out of AS-i	1 single slave	<b>BWR1468</b>
	73mm x 37,5mm	4	4 x electronic	–	solder lugs	no	yes	out of AS-i	out of AUX	1 AB slave	<b>BWR2442</b>
	73mm x 37,5mm	4	4 x electronic	–	socket board	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR3116</b>
	73mm x 37,5mm	4	4 x electronic	–	connecting wires, 200 mm	yes, thick coated	yes	out of AS-i	out of AS-i	1 single slave	<b>BWR2597</b>
	73mm x 37,5mm	4	4 x electronic	–	connecting wires, 200 mm	yes, thick coated	yes	out of AS-i	out of AS-i	1 AB slave	<b>BWR2571</b>
	73mm x 37,5mm	4	4 x electronic	–	wiring pins, angled	no	no	out of AS-i	out of AS-i	1 single slave	<b>BWR1218</b>
	73mm x 37,5mm	4	4 x electronic	–	wiring pins, angled	no	yes	out of AS-i	out of AUX	1 single slave	<b>BWR2591</b>
	73mm x 37,5mm	4	4 x electronic	–	wiring pins, angled	yes	yes	out of AUX	out of AUX	1 AB slave	<b>BWR3215</b>
	73mm x 37,5mm	4	4 x electronic	–	wiring pins, straight	yes	yes	out of AUX	out of AUX	1 AB slave	<b>BWR3214</b>
	73mm x 37,5mm	4	4 x electronic	–	wiring pins, straight	yes, thick coated	yes	out of AUX	out of AUX	1 AB slave	<b>BWR3213</b>
	73mm x 37,5mm	4	4 x electronic	–	plug-in spring-type terminals	no	no	out of AS-i	out of AS-i	1 AB slave	<b>BWR1889</b>

Figure	Circuit board dimensions <sup>(1)</sup>	Inputs digital	Outputs digital	Inputs analog	Connection <sup>(2)</sup>	Coated <sup>(3)</sup>	LED status display <sup>(4)</sup>	Input voltage (sensor supply) <sup>(5)</sup>	Output voltage (actuator supply) <sup>(6)</sup>	AS-i address <sup>(7)</sup>	Art.no.
	73mm x 37,5mm	4	4 x electronic	–	screw terminals	no	no	out of AS-i	out of AS-i	1 single slave	<b>BWR1219</b>
	73mm x 37,5mm	4	4 x electronic	–	screw terminals	no	no	out of AUX	out of AUX	1 single slave	<b>BWR1389</b>
	73mm x 37,5mm	4	4 x electronic	–	screw terminals	no	yes	out of AS-i	out of AS-i	1 single slave	<b>BWR1470</b>
	73mm x 37,5mm	4	4 x electronic	–	screw terminals	no	yes	out of AS-i	out of AUX	1 single slave	<b>BWR1628</b>
	73mm x 37,5mm	4	4 x electronic	–	screw terminals	yes	yes	out of AS-i	out of AS-i	1 AB slave	<b>BWR3190</b>
	73mm x 37,5mm	4	4 x electronic	–	screw terminals	yes	yes	out of AS-i	out of AS-i	1 single slave	<b>BWR1789</b>
	73mm x 37,5mm	4	4 x electronic	–	screw terminals	yes, thick coated	yes	out of AUX	out of AUX	1 AB slave	<b>BWR2803</b>
	73mm x 37,5mm	4	–	–	connecting wires, 200 mm	yes, thick coated	yes	out of AS-i	–	1 AB slave	<b>BWR2842</b>
	73mm x 37,5mm	8	–	–	connecting wires, 200 mm	yes, thick coated	no	out of AS-i	–	2 AB slaves	<b>BWR2774</b>
	73mm x 37,5mm	8	–	–	wiring pins, angled	no	no	out of AS-i	–	2 AB slaves	<b>BWR1351</b>
	73mm x 37,5mm	8	–	–	screw terminals	no	no	out of AS-i	–	2 AB slaves	<b>BWR1352</b>
	73mm x 37,5mm	–	6 x electronic	–	screw terminals	no	no	–	out of AS-i	2 AB slaves	<b>BWR1627</b>
	73mm x 37,5mm	–	–	2 x 0 ... 10V	wiring pins, angled	no	yes	out of AS-i	out of AS-i	1 single slave	<b>BWR2035</b>

(1) **Circuit board dimensions:** 2 holes for assembly angles.

(2) **Connection:** further connection options are available on request.

screw terminals nominal cross section 0,5 mm <sup>2</sup>	wiring pins, angled contact spacing 2,54 mm	wiring pins, straight contact spacing 2,54 mm	solder lugs contact spacing 2,54mm	socket board nominal cross section 0,65 mm <sup>2</sup>	plug-in spring type terminals nominal cross section 0,5 mm <sup>2</sup>	connecting wires nominal cross section 0,34 mm Length 100 / 200 mm (other lengths available on request)

(3) **Coating:** coating protects components and circuit boards when touched.

coated	thick coated

(4) **LED status display:** status of in- and outputs is indicated by LEDs. In addition to that, both AS-i LEDs (PWR green and FAULT red) show - as usual regarding the AS-i slaves - the status of the AS-i slaves. Uaux is indicated by a green LED.

(5) **Input voltage (sensor supply):** inputs are supplied by AS-i or by AUX (auxiliary 24 V power). If supplied by AS-i, inputs shall not be connected to earth or to external potential.

(6) **Output voltage (actuator supply):** outputs are supplied by AS-i or by AUX (auxiliary 24 V power). If supplied by AS-i, outputs shall not be connected to earth or to external potential.

- <sup>(7)</sup> **AS-i address:** AB slave (max. 62 AB Slaves/AS-i network), 2 AB slaves (max. 31 modules with 2 AB slaves), single Slaves (max. 31 single Slaves/AS-i network), mixed use allowed. For modules with two slaves the second slave is turned off as long as the first slave is addressed to address "0". Upon request, slaves are available with specific AS-i slave profiles.

For technical data on further devices, see the next pages!

Article no.	BWR1566	BWR3189	BWR2782	BWR1443	BWR2393	BWR1957	BWR1421
<b>Connection</b>							
AS-i / peripheral connection	wiring pins, straight		screw terminals			solder lugs, screw terminals only to AS-i pins	solder lugs
Length of connector cable	I/O: max. 1,5 m <sup>(1)</sup>						
<b>AS-i</b>							
Profile	S-B.A.E, ID1=F (default)	S-B.A.E, ID1=7 (default)	S-7.A.7, ID1=E (default)	S-B.A.E, ID1=7 (default)		S-B.A.E, ID1=F (default)	S-B.A.E, ID1=7 (default)
Address	1 AB slave						
Required Master profile	≥M3						
Since AS-i specification	2.1						
Operating voltage	30 V (18 ... 31,6 V)						
Max. current consumption	120 mA	130 mA					
<b>AUX</b>							
Operating voltage	-						
Max. current consumption	-						
<b>Inputs digital</b>							
Number	1	2					
Power supply	out of AS-i						
Power supply of attached sensors	max. 80 mA, $\sum (In/Out) \leq 80$ mA						
Input level	$U_{in} < 2$ V low, $U_{in} > 10$ V high						
<b>Outputs digital</b>							
Number	1	2					
Power supply	out of AS-i						
Max. current consumption	80 mA per output, $\sum (In/Out) \leq 80$ mA						
<b>Display</b>							
LED indicators	no						
<b>UL Recognized Component</b>							
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices						
External protection	The input to the devices need to be provided with a fuse rated 4 A max or else the devices need to be powered from a class 2 or a SELV limited power source.						
<b>Environment</b>							
Applied standards	EN 61 000-6-2 EN 61 000-6-3 EN 60529						
Operating altitude	max. 2000 m						
Ambient temperature	-25 °C ... +70 °C						
Storage temperature	-25 °C ... +85 °C						
Protection class	IP00						
Coating	no		yes		no		
Allowed shock and vibration stress	$\leq 15g$ , $T \leq 11$ ms, 10 ... 55 Hz, 0,5 mm amplitude						
Weight	15 g						
Dimensions (W / H / D in mm)	29,7 / 36,5 / 10						

<sup>(1)</sup> loop resistance:  $\leq 150 \Omega$

Article no.	BWR2229	BWR1387	BWR1386	BWR1408	BWR1682
<b>Connection</b>					
AS-i / AUX / peripheral connection	plug-in spring-type terminals	screw terminals	wiring pins, angled	solder lugs	
Length of connector cable	I/O: max. 1,5 m <sup>(1)</sup>				
<b>AS-i</b>					
Profile	S-7.A.E, ID1=7 (default)			S-7.A.E, ID1=F (default)	
Address	1 AB slave				
Required Master profile	≥M3				
Since AS-i specification	2.1				
Operating voltage	30 V (18 ... 31,6 V)				
Max. current consumption	220 mA			230 mA	
<b>AUX</b>					
Voltage	-			24 V (18 ... 30 V)	
Max. current consumption	-			2,1 A	
<b>Inputs digital</b>					
Number	4				
Power supply	out of AS-i				
Power supply of attached sensors	max. 180 mA, $\sum (In/Out) \leq 180 \text{ mA}$			max. 180 mA	
Input level	$U_{in} < 2 \text{ V low}, U_{in} > 10 \text{ V high}$				
<b>Outputs digital</b>					
Number	3				
Power supply	out of AS-i			out of AUX	
Max. current consumption	100 mA per output, $\sum (In/Out) \leq 180 \text{ mA}$			250 mA per output, $\sum \leq 500 \text{ mA}$	
<b>Display</b>					
LED indicators	no			yes	
<b>UL Recognized Component</b>					
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices				
External protection	The input to the devices need to be provided with a fuse rated 4 A max or else the devices need to be powered from a class 2 or a SELV limited power source.				
<b>Environment</b>					
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 60529				
Operating altitude	max. 2000 m				
Ambient temperature	-25 °C ... +70 °C			-25 °C ... +60 °C	
Storage temperature	-25 °C ... +85 °C				
Protection class	IP00				
Coating	no				
Allowed shock and vibration stress	$\leq 15 \text{ g}, T \leq 11 \text{ ms},$ 10 ... 55 Hz, 0,5 mm amplitude				
Weight	27 g				
Dimensions (W / H / D in mm)	73 / 37,5 / 12	73 / 37,5 / 7	73 / 37,5 / 10	73 / 37,5 / 7	73 / 37,5 / 10

(1) loop resistance:  $\leq 150 \Omega$

Article no.	BWR3116	BWR3190	BWR2571	BWR2597	BWR1468	BWR2052	BWR2442
<b>Connection</b>							
AS-i / AUX / peripheral connection	socket board	screw terminals	connecting wires, 200 mm		solder lugs		
Length of connector cable	I/O: max. 1,5 m <sup>(1)</sup>						
<b>AS-i</b>							
Profile	S -7.A.7, ID1=7 (fixed)		S-7.0.E, ID1=F (default)	S-7.0.F, ID1=F (default)		S -7.A.7, ID1=7 (fixed)	
Address	1 AB slave		1 single slave			1 AB slave	
Required Master profile	≥M4		≥M0		≥M4		
Since AS-i specification	3.0		2.0		3.0		
Operating voltage	18 ... 31,6 V						
Max. current consumption	230 mA		310 mA		300 mA	230 mA	
<b>AUX</b>							
Voltage	-						24 V (18 ... 30 V)
Max. current consumption	-						2,1 A
<b>Inputs digital</b>							
Number	4						
Power supply	out of AS-i						
Power supply of attached sensors	max. 180 mA, $\sum (In/Out) \leq 180$ mA		max. 260 mA, $\sum (In/Out) \leq 260$ mA			max. 180 mA	
Input level	$U_{in} < 2$ V low, $U_{in} > 10$ V high						
<b>Outputs digital</b>							
Number	4						
Power supply	out of AS-i						out of AUX
Max. current consumption	100 mA per output, $\sum (In/Out) \leq 180$ mA		100 mA per output, $\sum (In/Out) \leq 260$ mA			250 mA per output $\sum \leq 500$ mA	
<b>Display</b>							
LED indicators	no	yes				no	yes
<b>UL Recognized Component</b>							
In general	RU mark does not provide UL certification for any functional safety rating or aspects of the above devices						
External protection	The input to the devices need to be provided with a fuse rated 4 A max or else the devices need to be powered from a class 2 or a SELV limited power source.						
<b>Environment</b>							
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 60529						
Operating altitude	max. 2000 m						
Ambient temperature	-25 °C ... +70 °C					-25 °C ... +60 °C	
Storage temperature	-25 °C ... +85 °C						
Protection class	IP00		IP54		IP00		
Coating	no	yes	yes, thick coated		no		
Allowed shock and vibration stress	$\leq 15g, T \leq 11$ ms, 10 ... 55 Hz, 0,5 mm amplitude						
Weight	27 g						
Dimensions (W / H / D in mm)	73 / 37,5 / 7	73 / 37,5 / 13				73 / 37,5 / 10	

<sup>(1)</sup> loop resistance:  $\leq 150 \Omega$

Article no.	BWR3213	BWR3214	BWR3215	BWR2591	BWR1218	BWR1889
<b>Connection</b>						
AS-i / AUX / peripheral connection	wiring pins, straight		wiring pins, angled			plug-in spring-type terminals
Length of connector cable	I/O: max. 1,5 m <sup>(1)</sup>					
<b>AS-i</b>						
Profile	S -7.A.7, ID1=7 (fixed)		S-7.0.E, ID1=F (default)	S-7.0.F, ID1=F (default)	S -7.A.7, ID1=7 (fixed)	
Address	1 AB slave		1 single slave		1 AB slave	
Required Master profile	≥M4		≥M0		≥M4	
Since AS-i specification	3.0		2.0		3.0	
Operating voltage	30 V (18 ... 31,6 V)					
Max. current consumption	60 mA		310 mA	300 mA	230 mA	
<b>AUX</b>						
Voltage	24 V (18 ... 30 V)			-		
Max. current consumption	2,1 A			-		
<b>Inputs digital</b>						
Number	4					
Power supply	out of AUX			out of AS-i		
Power supply of attached sensors	directly out of AUX		max. 260 mA	max. 260 mA, $\sum (In/Out) \leq 260$ mA	max. 180 mA, $\sum (In/Out) \leq 180$ mA	
Input level	$U_{in} < 2$ V low, $U_{in} > 10$ V high					
<b>Outputs digital</b>						
Number	4					
Power supply	out of AUX			out of AS-i		
Max. current consumption	250 mA per output, $\sum \leq 500$ mA			100 mA per output, $\sum (In/Out) \leq 260$ mA	100 mA per output, $\sum (In/Out) \leq 180$ mA	
<b>Display</b>						
LED indicators	yes			no		
<b>UL Recognized Component</b>						
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices					
External protection	The input to the devices need to be provided with a fuse rated 4 A max or else the devices need to be powered from a class 2 or a SELV limited power source.					
<b>Environment</b>						
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 60529					
Operating altitude	max. 2000 m					
Ambient temperature	-25 °C ... +70 °C		-25 °C ... +60 °C	-25 °C ... +70 °C		
Storage temperature	-25 °C ... +85 °C					
Protection class	IP00					
Coating	yes, thick coated	yes		no		
Allowed shock and vibration stress	$\leq 15$ g, $T \leq 11$ ms, 10 ... 55 Hz, 0,5 mm amplitude					
Weight	27 g					
Dimensions (W / H / D in mm)	73 / 37,5 / 10			73 / 37,5 / 7	73 / 37,5 / 12	

<sup>(1)</sup> loop resistance:  $\leq 150 \Omega$

Article no.	BWR1219	BWR1389	BWR1470	BWR1789	BWR1628	BWR2803
<b>Connection</b>						
AS-i / AUX / peripheral connection	screw terminals					
Length of connector cable	I/O: max. 1,5 m <sup>(1)</sup>					
<b>AS-i</b>						
Profile	S-7.0.F, ID1=F (default)			S-7.0.E, ID1=F (default)	S-7.A.7, ID1=7 (fixed)	
Address	1 single slave					1 AB slave
Required Master profile	≥M0					≥M4
Since AS-i specification	2.0					3.0
Operating voltage	30 V (18 ... 31,6 V)					
Max. current consumption	300 mA	40 mA	310 mA		60 mA	
<b>AUX</b>						
Voltage	–	24 V (18 ... 30 V)	–	24 V (18 ... 30 V)		
Max. current consumption	–	200 mA	–	2,1 A		
<b>Inputs digital</b>						
Number	4					
Power supply	out of AS-i	out of AUX	out of AS-i			out of AUX
Power supply of attached sensors	max. 260 mA, ∑ (In/Out) ≤260 mA	max. 180 mA, ∑ (In/Out) ≤180 mA	max. 260 mA, ∑ (In/Out) ≤260 mA		no power supply	directly out of AUX
Input level	U <sub>in</sub> < 2 V low, U <sub>in</sub> > 10 V high					
<b>Outputs digital</b>						
Number	4					
Power supply	out of AS-i	out of AUX	out of AS-i			out of AUX
Max. current consumption	100 mA per output, ∑ (In/Out) ≤260 mA	100 mA per output, ∑ (In/Out) ≤180 mA	100 mA per output, ∑ (In/Out) ≤260 mA			250 mA per output, ∑ ≤500 mA
<b>Display</b>						
LED indicators	no			yes		
<b>UL Recognized Component</b>						
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices					
External protection	The input to the devices need to be provided with a fuse rated 4 A max or else the devices need to be powered from a class 2 or a SELV limited power source.					
<b>Environment</b>						
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 60529					
Operating altitude	max. 2000 m					
Ambient temperature	-25 °C ... +70 °C	-25 °C ... +60 °C	-25 °C ... +70 °C		-25 °C ... +60 °C	
Storage temperature	-25 °C ... +85 °C					
Protection class	IP00					
Coating	no			yes	no	yes, thick coated
Allowed shock and vibration stress	≤15g, T≤11 ms, 10 ... 55 Hz, 0,5 mm amplitude					
Weight	27 g					
Dimensions (W / H / D in mm)	73 / 37,5 / 10		73 / 37,5 / 13		73 / 37,5 / 10	

<sup>(1)</sup> loop resistance: ≤150 Ω



Article no.	BWR2842	BWR2774	BWR1352	BWR1351	BWR1627
<b>Connection</b>					
AS-i / AUX / peripheral connection	connecting wires, 200 mm		screw terminals	wiring pins, angled	screw terminals
Length of connector cable	I/O: max. 1,5 m <sup>(1)</sup>				
<b>AS-i</b>					
Profile	S -7.A.7, ID1=7 (fixed)	2 x S-0.A.2, ID1=7 (default)		2 x S-8.A.0, D1=7 (default)	
Address	1 AB slave	2 AB slaves			
Required Master profile	≥M4	≥M3			
Since AS-i specification	3.0	2.1			
Operating voltage	30 V (18 ... 31,6 V)				
Max. current consumption	230 mA				
<b>AUX</b>					
Voltage	-				
Max. current consumption	-				
<b>Inputs digital</b>					
Number	4	8		-	
Power supply	out of AS-i				
Power supply of attached sensors	max. 180 mA				
Input level	U <sub>in</sub> < 2 V low, U <sub>in</sub> > 10 V high				
<b>Outputs digital</b>					
Number	-			6	
Power supply	-				
Max. current consumption	-				
	100 mA per output, Σ ≤ 180 mA				
<b>Display</b>					
LED indicators	yes	no			
<b>UL Recognized Component</b>					
In general	RU mark does not provide UL certification for any functional safety rating or aspects of the above devices				
External protection	The input to the devices need to be provided with a fuse rated 4 A max or else the devices need to be powered from a class 2 or a SELV limited power source.				
<b>Environment</b>					
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 60529				
Operating altitude	max. 2000 m				
Ambient temperature	-25 °C ... +70 °C				-25 °C ... +60 °C
Storage temperature	-25 °C ... +85 °C				
Protection class	IP54		IP00		
Coating	yes, thick coated		no		
Allowed shock and vibration stress	≤15g, T≤11 ms, 10 ... 55 Hz, 0,5 mm amplitude				
Weight	27 g				
Dimensions (W / H / D in mm)	73 / 37,5 / 13	73 / 37,5 / 10		73 / 37,5 / 7	73 / 37,5 / 10

<sup>(1)</sup> loop resistance: ≤150 Ω

<b>Article no.</b>	<b>BWR2035</b>
<b>Connection</b>	
AS-i / peripheral connection	wiring pins, angled
Length of connector cable	I/O: max. 1,5 m <sup>(1)</sup>
<b>AS-i</b>	
Profile	S-7.3.D, ID1=F (default)
Address	1 single slave
Required Master profile	≥M3
Since AS-i specification	2.1
Operating voltage	30 V (18 ... 31,6 V)
Max. current consumption	120 mA
<b>AUX</b>	
Voltage	–
Max. current consumption	–
<b>Inputs analogue</b>	
Number	2
Power supply	out of AS-i
Resolution	normal: 14 Bit; fast: 11 Bit
Range of value	0 ... 10000 dec 0 ... 27648 dec <sup>(2)</sup>
Transformation speed	normal: 33 ms/14 Bit; fast: 4,2 ms/11 Bit
Input level	0 ... 10 V
Internal resistance	100 kΩ
Power supply of attached sensors	max. 75 mA
Input level	U <sub>in</sub> <2 V low, U <sub>in</sub> >10 V high
<b>Display</b>	
LED indicators	no
<b>UL Recognized Component</b>	
In general	Ⓜ mark does not provide UL certification for any functional safety rating or aspects of the above devices
External protection	The input to the devices need to be provided with a fuse rated 4 A max or else the devices need to be powered from a class 2 or a SELV limited power source.
<b>Environment</b>	
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 60529
Operating altitude	max. 2000 m
Ambient temperature	-25 °C ... +70 °C
Storage temperature	-25 °C ... +85 °C
Protection class	IP00
Coating	no
Allowed shock and vibration stress	≤15g, T≤11 ms, 10 ... 55 Hz, 0,5 mm amplitude
Weight	27 g
Dimensions (W / H / D in mm)	73 / 37,5 / 10

<sup>(1)</sup> loop resistance: ≤150 Ω

<sup>(2)</sup> Siemens scale

Programming	Bit Setting Digital IO							
	slave 1				slave 2			
	D0	D1	D2	D3	D0	D1	D2	D3
	input							
BWR1566	—		I1	—	—			
BWR1421, BWR1443, BWR1957, BWR2782, BWR3189	—		I1	I2	—			
BWR1218, BWR1219, BWR1387, BWR1386, BWR1389, BWR1408, BWR1468, BWR1470, BWR1628, BWR1682, BWR1789, BWR1889, BWR2052, BWR2229, BWR2442, BWR2571, BWR2591, BWR2597, BWR2803, BWR2842, BWR3116, BWR3190, BWR3213, BWR3214, BWR3215	I1	I2	I3	I4	—			
BWR1351, BWR1352, BWR2774	I1	I2	I3	I4	I5	I6	I7	I8
BWR1627	—							
BWR2393	I1	I2	I1	I2	—			
	output							
BWR1566	O1	—			—			
BWR1421, BWR1443, BWR1957, BWR2782, BWR3189	O1	O2	—		—			
BWR1218, BWR1219, BWR1386, BWR1387, BWR1389, BWR1408, BWR1468, BWR1470, BWR1628, BWR1682, BWR1789, BWR1889, BWR2052, BWR2229, BWR2442, BWR2571, BWR2591, BWR2597, BWR2803, BWR3116, BWR3190, BWR3213, BWR3214, BWR3215	O1	O2	O3	O4	—			
BWR1351, BWR1352, BWR2774	—							
BWR1627	O1	O2	O3	—	O4	O5	O6	—
BWR2393	O1	O2	—		—			

Programming	Parameter bit			
	P0	P1	P2	P3
BWR1421, BWR1443, BWR1566, BWR1957, BWR2393, BWR3189	not used			
BWR1218, BWR1219, BWR1386, BWR1387, BWR1389, BWR1408, BWR1468, BWR1470, BWR1628, BWR1682, BWR1789, BWR2052, BWR2229, BWR2442, BWR2591, BWR2803, BWR3190, BWR3213, BWR3214, BWR3215	not used			
BWR1351, BWR1352, BWR2774	not used			
BWR1627	not used			
BWR2035	1: peripheral fault is indicated 0: peripheral fault is not indicated	1: 0 ... 10000 dec. 0: 0 ... 27648 dec. (Siemens format)	1: regular 0: fast	1: channel 2 on 0: channel 2 off
BWR2782			not used	not used
BWR1889, BWR2571, BWR2597, BWR2842, BWR3116	0=off / 1=on (Watchdog)	0=on / 1=off (data input filter)	0=on / 1=off (synchronous I/O mode)	

Programming	
BWR1218, BWR1219, BWR1386, BWR1387, BWR1389, BWR1408, BWR1421, BWR1443, BWR1470, BWR1566, BWR1628, BWR1682, BWR1789, BWR1889, BWR1957, BWR2035, BWR2229, BWR2393, BWR2571, BWR2597, BWR2782, BWR2803, BWR2842, BWR3116, BWR3189, BWR3190, BWR3213, BWR3214, BWR3215	Address preset 0 changeable via bus master or programming devices
BWR1351, BWR1352, BWR2774	Address preset 0 + 0, changeable only via AS-i Master in configuration mode.
BWR1627	Address preset 0 + 1, changeable only via AS-i Master in configuration mode.
Position of DIP switch	
BWR1351, BWR1352, BWR1627, BWR2774	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"> <p style="text-align: center; margin: 0;"><b>1</b></p> <p style="text-align: center; margin: 0;"><b>ON</b></p> </div> <div> <p>1: 2. AS-i slave is activated ON: 2. AS-i slave is deactivated</p> </div> </div>

Connections:	
AS-i +, AS-i -	Connection to the AS-i bus
Ix	Input x
Ox	Output x
0 V	Reference potential for outputs
+ or +24V	Output for 24 V power supply for the inputs
+24 V_in	Input for 24 V power supply
+24 V_12, +24_34	Output for 24 V power supply for inputs 1+2 and/or 3+4
Sig1+, Sig2+	Positive terminal of analog inputs 1+2
Sig1-, Sig2-	Negative terminal of analog inputs 1+2
n.c.	not connected

Dimensional drawings	
BWR1421, BWR1443, BWR1566, BWR1957, BWR2393, BWR2782, BWR3189	BWR1218, BWR1219, BWR1351, BWR1352, BWR1386, BWR1387, BWR1389, BWR1408, BWR1468, BWR1470, BWR1627, BWR1628, BWR1682, BWR1789, BWR1889, BWR2035, BWR2052, BWR2229, BWR2442, BWR2571, BWR2591, BWR2597, BWR2774, BWR2803, BWR2842, BWR3116, BWR3190, BWR3213, BWR3214, BWR3215

LED assignment	
BWR1468, BWR1470, BWR1789, BWR2571, BWR2597, BWR3190	BWR1628, BWR1682, BWR2442, BWR2591, BWR2803, BWR3213, BWR3214, BWR3215
<p>Diagram showing LED assignments for the first group of modules. The top row contains five LEDs labeled FAULT, O4, O3, O2, and O1. The bottom row contains five LEDs labeled AS-i, I4, I3, I2, and I1.</p>	<p>Diagram showing LED assignments for the second group of modules. The top row contains six LEDs labeled FAULT, O4, O3, O2, O1, and U<sub>AUX</sub>. The bottom row contains five LEDs labeled AS-i, I4, I3, I2, and I1.</p>
BWR2842	
<p>Diagram showing LED assignments for BWR2842. The top row contains one LED labeled FAULT. The bottom row contains four LEDs labeled AS-i, I4, I3, I2, and I1.</p>	

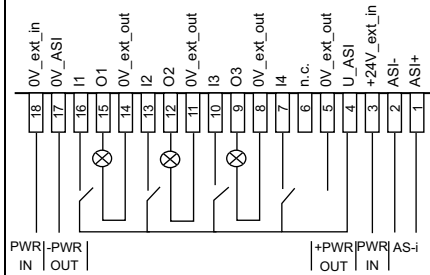
Connection assignment	
BWR1421, BWR1443, BWR1566, BWR1957, BWR2392, BWR2782, BWR3189	BWR1218, BWR1219, BWR1351, BWR1352, BWR1386, BWR1387, BWR1389, BWR1408, BWR1468, BWR1470, BWR1627, BWR1628, BWR1682, BWR1789, BWR1889, BWR2035, BWR2052, BWR2229, BWR2442, BWR2571, BWR2591, BWR2597, BWR2774, BWR2803, BWR2842, BWR3116, BWR3190, BWR3213, BWR3214, BWR3215
<p>Diagram showing connection assignments for the first group of modules. The bottom edge features a 16-pin connector with pins numbered 1 through 16 from left to right.</p>	<p>Diagram showing connection assignments for the second group of modules. The bottom edge features a 16-pin connector with pins numbered 1 through 16 from right to left.</p>

	<p><b>Notice</b> You shall not connect wiring with connections marked <b>n.c.</b> (not connected).</p>
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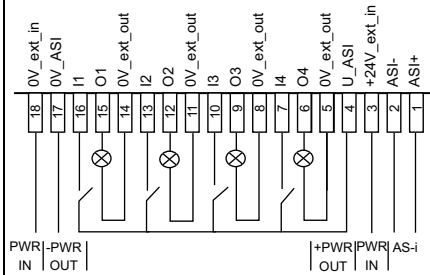
Terminal diagram	
<p><b>BWR1421, BWR1443, BWR1957, BWR2782, BWR3189</b></p>	<p><b>BWR1218, BWR1219, BWR1386, BWR1387, BWR1408, BWR1468, BWR1470, BWR1789, BWR1889, BWR2052, BWR2229, BWR2571, BWR2597, BWR3116, BWR3190</b></p>
<p><b>BWR1389</b></p> <p>PWR IN   IO-Block 1+2   IO-Block 3+4   PWR IN   ASI</p>	<p><b>BWR1351, BWR1352, BWR2774</b></p>
<p><b>BWR1627</b></p>	<p><b>BWR1628</b></p> <p>PWR IN   IO-Block 1+2   IO-Block 3+4   PWR IN   ASI</p>
<p><b>BWR2035</b></p>	<p><b>BWR2393</b></p> <p>IO-Block 1+2   ASI</p>

Terminal diagram

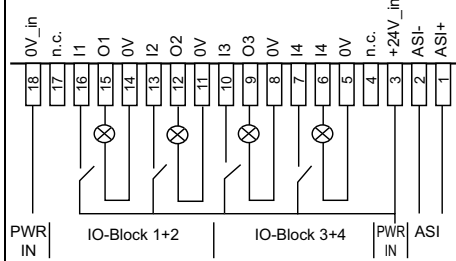
**BWR1682**



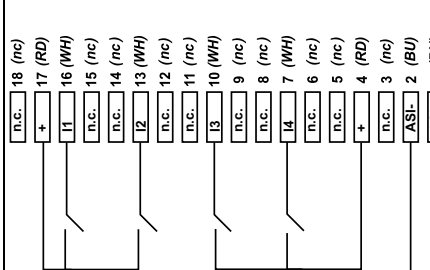
**BWR2442, BWR2591**



**BWR2803, BWR3213, BWR3214, BWR3215**



**BWR2842**



**BWR1566**

