

Power Limiting Device, IP20, 22,5 mm

2x inputs (In1 galvanically isolated to In2) to
2x current controlled outputs (Out1 galvanically isolated to Out2)

Limited Energy Circuits in accordance with:

- UL 61010-1 and UL 61010-2-201
- CAN/CSA C22.2 No. 61010-1 and CAN/CSA C22.2 No. 61010-2-201

Output current limited at ≤ 3 A per output


Electronic self-resetting fuses

Operating voltage 19 ... 32 V



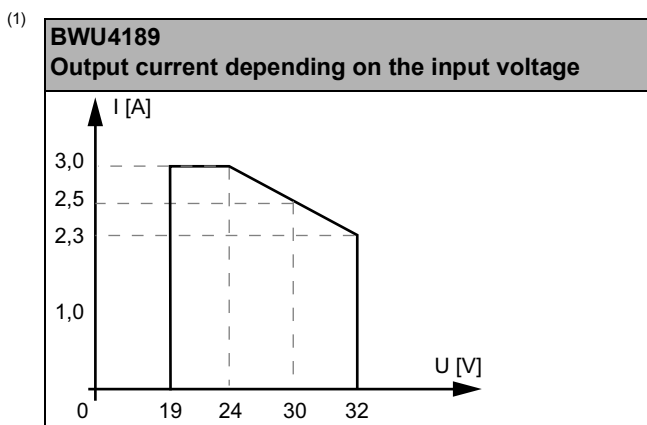
(Figure similar)



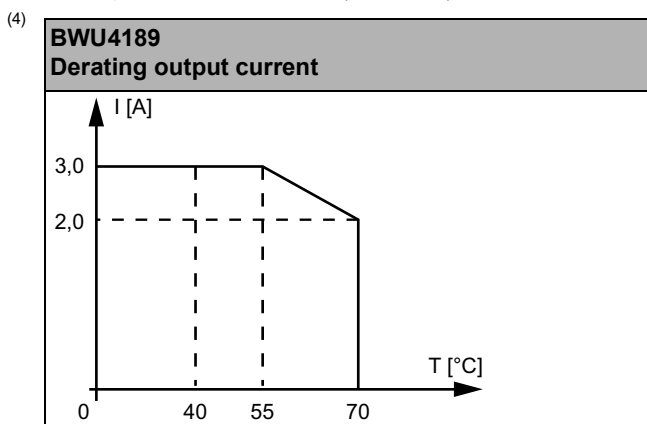
Figure	Type	Inputs	Output	Operating voltage	Output current	Connections	Article No.
	IP20, 22,5 mm x 114 mm, 6 x COMBICON	2	2 x (Limited Energy Circuits)	ASi or 19 ... 32 V _{DC}	≤ 3 A per output	clamps	BWU4189

Article no.		BWU4189	
General data			
Device type		power limiting device	
Connection			
Input connection		COMBICON plug	
Output connection		COMBICON plug	
Input			
Number		2 (In1 galvanically isolated to In2)	
Input voltage		ASi or 19 ... 32 V _{DC} ^{(1) (2)}	
Input current		depending on network configuration	
Output			
Number		2 (Out1 galvanically isolated to Out2) ⁽³⁾ Limited Energy Circuits in accordance with: • UL 61010-1 and UL 61010-2-201 • CAN/CSA C22.2 No. 61010-1 and CAN/CSA C22.2 No. 61010-2-201	
Output voltage		ASi or 19 ... 32 V _{DC}	
Output current		up to +40 °C	≤ 3 A per output ⁽⁴⁾ $\leq 2,3$ A per output at 32 V _{DC} ⁽¹⁾
		at +55 °C	≤ 3 A per output ⁽⁴⁾ at 24 V _{DC} ⁽¹⁾ $\leq 2,3$ A per output at 32 V _{DC} ⁽¹⁾
		at +70 °C	≤ 2 A per output ⁽⁴⁾
Display			
LED In1, In2 (green)		on: input voltage on off: no input voltage	
LED FLT1, FLT2 (red)		on: overload output or overvoltage or undervoltage input	

Article no.	BWU4189
Environment	
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131 EN 60529
Operating altitude	max. 2000 m
Ambient temperature	-25 °C ... +70 °C no condensation permitted
Storage temperature	-25 °C ... +85 °C
Housing	plastic, for DIN rail mounting
Pollution Degree	2
Protection category	IP20
Oversvoltage category	II
Tolerable loading referring to humidity	according to EN 61131-2 10% to 95%, non-condensing, according to EN 61131-2
Voltage of insulation	≥ 860 V _{AC} (valid between the both channels (In1+Out1 to In2+Out2))
Weight	150 g
Dimensions (W / H / D in mm)	22,5 / 99 / 114
Mounting position	vertical (mounting rail horizontal, clamps pointing upwards and downwards) ⁽⁵⁾
Mounting	Can be combined with Bihl+Wiedemann devices of the same design and neighboring devices up to an ambient temperature of +40 °C. For higher temperatures a minimum distance of 10 mm to neighboring active devices must be provided.



- (2) The power supply unit for supply must have safe mains isolation acc. to IEC 60742.
- (3) The outputs of the both channels (Out1, Out2) must not be connected in parallel and both channels must not be connected in series.



- (5) Make sure there is adequate ventilation. The supply air temperature at the bottom of the housing may not exceed values specified under ambient temperature.

	<p>Please observe the following instructions. For more information see installation instructions.</p> <ul style="list-style-type: none"> • Safety precautions and warnings are designated by the symbol. • Bihl und Wiedemann GmbH is not liable for damage resulting from improper use of its equipment. Familiarity with these instructions constitutes part of the knowledge required for proper use. • The device should be installed in a control cabinet with a protection type of at least IP54! • The device may only be operated within the limits of its technical specifications. It may only be operated with the specified current and voltage values. • The 24 V must be supplied by a PELV power supply.
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Wiring rules

Push-in terminals	
General	
Nominal cross section	2.5 mm ²
Conductor cross section	
Conductor cross section solid	0.2 ... 2.5 mm ²
Conductor cross section flexible	0.2 ... 2.5 mm ²
Conductor cross section flexible, with ferrule	without plastic sleeve: 0.2 ... 2.5 mm ²
	with plastic sleeve: 0.25 ... 2.5 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules	without plastic sleeve: 0.5 ... 1.5 mm ²
AWG	24 ... 14
Stripped insulation length	10 mm

Connections

Name	Explanation
In x	input x
Out x	output x (corresponding with input x but current controlled) Limited Energy Circuits in accordance with: <ul style="list-style-type: none"> • UL 61010-1 and UL 61010-2-201 • CAN/CSA C22.2 No. 61010-1 and CAN/CSA C22.2 No. 61010-2-201

Connections	Functional diagram
	<p style="text-align: center;"> Limited Energy Circuits in accordance with: • UL 61010-1 and UL 61010-2-201 • CAN/CSA C22.2 No. 61010-1 and CAN/CSA C22.2 No. 61010-2-201 </p> <ul style="list-style-type: none"> • In case of an overload at the output (Out1, Out2) above the specified current limit, the according channel is switched off. • When the output current is decreased below the specified current limit, the channel is switched on as long as the output current remains within the specified limit. • It can take up to 60 s until the channel is switched on again after an output overload.