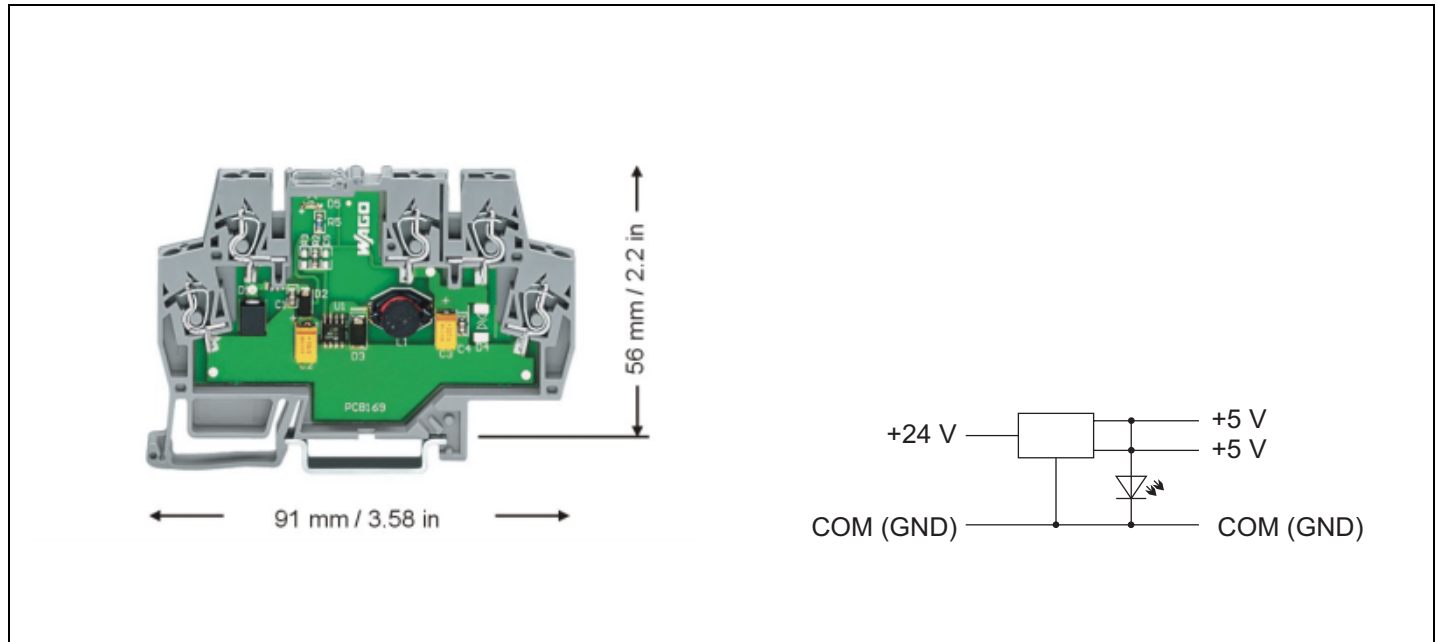


Electronic Terminal Block with DC-DC Converter

1/1

Step Down Converter DC 24 V / DC 5 V

Data sheet



Description	Item-No.	Pack.-unit pcs																																																
DC/DC Converter 24 V / 5 V ; 0.5 A	859-801	1																																																
<ul style="list-style-type: none"> End plate 859-525 included and attached. Mounting on DIN 35 rail. <p>Application:</p> <p>When industrial controls that typically require DC 24 V are used in conjunction with computer based systems operating at DC 5 V, often interface devices are required. This module can cost effectively produce DC 5 V at up to 500 mA from a 24 V source. This module can be used to supply DC 5 V to WAGO-I/O-SYSTEM interface modules requiring a 5 V field-side supply.</p>	<p>Technical Data</p> <table border="1"> <tr><td>Input nominal voltage U_N</td><td>DC 24 V</td></tr> <tr><td>Input voltage range</td><td>DC 10-30 V</td></tr> <tr><td>Output voltage</td><td>DC 5 V</td></tr> <tr><td>Output voltage range</td><td>DC 5 V \pm 2 %</td></tr> <tr><td>Max. output current</td><td>500 mA</td></tr> <tr><td>Max. line regulation</td><td>2 % (from DC 10-30 V, full load)</td></tr> <tr><td>Max. load regulation</td><td>0.5 % (no load to full load, DC 24 V_{in})</td></tr> <tr><td>Efficiency</td><td>70 % (DC 24 V in, full load)</td></tr> <tr><td>Output noise and ripple</td><td>150 mV P-P max (at bandwidth 20 MHz)</td></tr> <tr><td>Switching frequency</td><td>200 kHz (nominal)</td></tr> <tr><td>Isolation</td><td>Non-isolated</td></tr> <tr><td>Input polarity protection</td><td>Yes</td></tr> <tr><td>Minimum load requirements</td><td>None</td></tr> <tr><td>Max. Transient recovery time</td><td>40 μs (Recovery time for a step load change of 25 % to 75 % of full load)</td></tr> <tr><td>Max. start-up time</td><td>3 ms (DC 24 V in, full load)</td></tr> <tr><td>Max. hold-up time</td><td>1 ms (DC 24 V in, full load)</td></tr> <tr><td>Input protection</td><td>TVS Diode</td></tr> <tr><td>Output short circuit protection</td><td>Momentary (Output can be shorted for 1 minute without damaging the device)</td></tr> <tr><td>Temperature coefficient</td><td>70 ppm/$^{\circ}$C</td></tr> <tr><td>Ambient operating temperature</td><td>0 $^{\circ}$C...+40 $^{\circ}$C</td></tr> <tr><td>Terminal block width</td><td>6 mm / 0.236 in</td></tr> <tr><td>Wire connection</td><td>CAGE CLAMP[®] 0.08-2.5 mm² / AWG 28-14</td></tr> <tr><td>Stripped length</td><td>5-6 mm / 0.22 in</td></tr> <tr><td>Approvals</td><td>cUL_{US} UL508 E175199 cUL_{US} UL1604 / CSA22.2 No.213 E198726 ATEX EN50021 / II 3 GD EEx nC II T4 DEMKO 02 ATEX 132280 U</td></tr> </table>		Input nominal voltage U_N	DC 24 V	Input voltage range	DC 10-30 V	Output voltage	DC 5 V	Output voltage range	DC 5 V \pm 2 %	Max. output current	500 mA	Max. line regulation	2 % (from DC 10-30 V, full load)	Max. load regulation	0.5 % (no load to full load, DC 24 V _{in})	Efficiency	70 % (DC 24 V in, full load)	Output noise and ripple	150 mV P-P max (at bandwidth 20 MHz)	Switching frequency	200 kHz (nominal)	Isolation	Non-isolated	Input polarity protection	Yes	Minimum load requirements	None	Max. Transient recovery time	40 μ s (Recovery time for a step load change of 25 % to 75 % of full load)	Max. start-up time	3 ms (DC 24 V in, full load)	Max. hold-up time	1 ms (DC 24 V in, full load)	Input protection	TVS Diode	Output short circuit protection	Momentary (Output can be shorted for 1 minute without damaging the device)	Temperature coefficient	70 ppm/ $^{\circ}$ C	Ambient operating temperature	0 $^{\circ}$ C...+40 $^{\circ}$ C	Terminal block width	6 mm / 0.236 in	Wire connection	CAGE CLAMP [®] 0.08-2.5 mm ² / AWG 28-14	Stripped length	5-6 mm / 0.22 in	Approvals	cUL _{US} UL508 E175199 cUL _{US} UL1604 / CSA22.2 No.213 E198726 ATEX EN50021 / II 3 GD EEx nC II T4 DEMKO 02 ATEX 132280 U
Input nominal voltage U_N	DC 24 V																																																	
Input voltage range	DC 10-30 V																																																	
Output voltage	DC 5 V																																																	
Output voltage range	DC 5 V \pm 2 %																																																	
Max. output current	500 mA																																																	
Max. line regulation	2 % (from DC 10-30 V, full load)																																																	
Max. load regulation	0.5 % (no load to full load, DC 24 V _{in})																																																	
Efficiency	70 % (DC 24 V in, full load)																																																	
Output noise and ripple	150 mV P-P max (at bandwidth 20 MHz)																																																	
Switching frequency	200 kHz (nominal)																																																	
Isolation	Non-isolated																																																	
Input polarity protection	Yes																																																	
Minimum load requirements	None																																																	
Max. Transient recovery time	40 μ s (Recovery time for a step load change of 25 % to 75 % of full load)																																																	
Max. start-up time	3 ms (DC 24 V in, full load)																																																	
Max. hold-up time	1 ms (DC 24 V in, full load)																																																	
Input protection	TVS Diode																																																	
Output short circuit protection	Momentary (Output can be shorted for 1 minute without damaging the device)																																																	
Temperature coefficient	70 ppm/ $^{\circ}$ C																																																	
Ambient operating temperature	0 $^{\circ}$ C...+40 $^{\circ}$ C																																																	
Terminal block width	6 mm / 0.236 in																																																	
Wire connection	CAGE CLAMP [®] 0.08-2.5 mm ² / AWG 28-14																																																	
Stripped length	5-6 mm / 0.22 in																																																	
Approvals	cUL _{US} UL508 E175199 cUL _{US} UL1604 / CSA22.2 No.213 E198726 ATEX EN50021 / II 3 GD EEx nC II T4 DEMKO 02 ATEX 132280 U																																																	