DELUS®

DC/DC Converter Selection Guide

2011 Edition

广州德励电子科技有限公司
DELUS GUANGZHOU ELECTRONIC TECHNOLOGY CO., LTD

Contents

广州德励电子科技有限公司

DELUS GUANGZHOU ELECTRONIC TECHNOLOGY CO., LTD

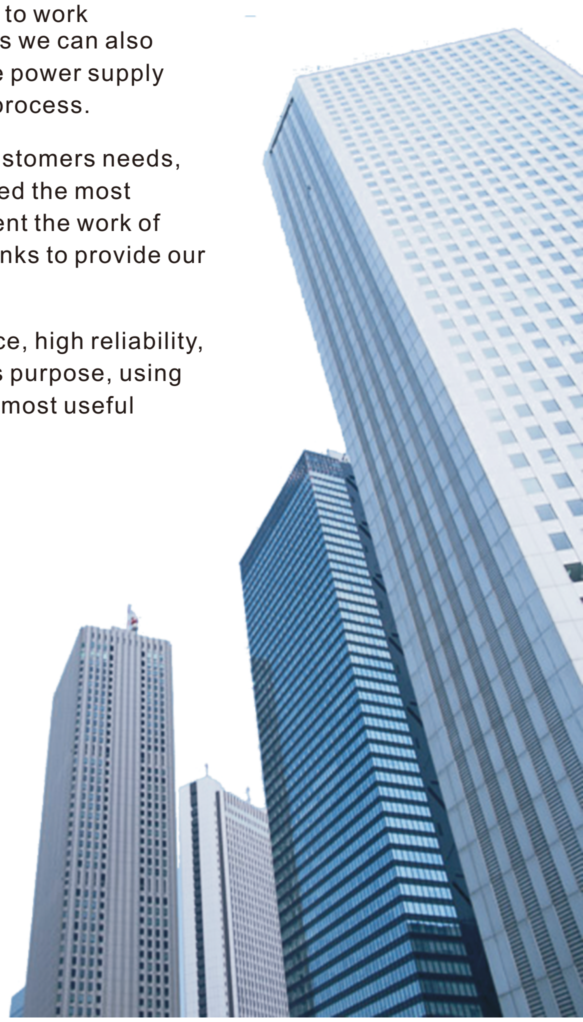
DELUS is a professional in DC/DC, AC/DC module power research and development, production and marketing of high-tech enterprises. The company "to be done all the best, and constantly surpass ourselves" as the motto, gather a large number of young and experienced engineers and customer service personnel, management personnel, and with a number of research institutions have established good relations of cooperation.

DELUS is focused on module development and production of power products, mainly including DC/DC, AC/DC two series, the power level from 0.1W ~ 200W, products widely used in coal, fire, communications, power systems, instrumentation, railway locomotives and other fields. Telerate (delus) power by virtue of its high reliability, cost-effective to win customers alike.

Company insists the product quality as enterprise life, and all production and management activities in strict accordance with ISO9001: 2000 quality management system requirements. To date has established a complete monitoring of the quality of the program file active process. Involving the assessment of suppliers, raw material purchasing, development, design, production processes, raw materials, semi-finished products, finished product inspection and storage, customer service, to ensure that the incoming qualified, well-structured, process to ensure finished products meet the customer satisfaction and other related requirements. Our products can be found in -40℃ ~ +85℃ harsh environments safe and reliable to work Product MTBF greater than 100 million hours. Customer special requirements we can also tailored so as to meet the harsh industrial environment, the use of the module power supply requirements and the full realization of the product lead-free manufacturing process.

The company has always put customer service first place, in order to meet customers needs, to help customers to complete product design, customer development, ordered the most suitable products. R & D departments and marketing departments to implement the work of interaction, and every R & D engineers have been involved in product sales links to provide our clients the most professional technical support.

DELUS's purpose: is committed to providing customers with high-performance, high reliability, low cost power supply module! Telerate's all the staff always bear in mind this purpose, using our technology and services that bring the most advanced, most reliable and most useful products dedicated to our customers.

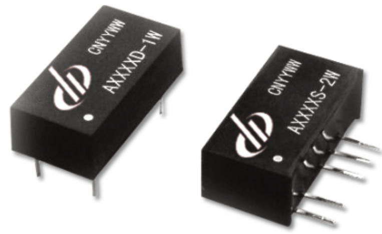


Fixed input, Isolated, Unregurated Series

Feature

1Watt & 2Watts, Fixed input unregulated output. This series product is suitable for: The former level by the switching power supply, or other regulated sources Power supply, the output voltage and ripple less demanding, low-current isolation and DC-DC voltage conversion of the occasion, such as high-power IGBT driver, pure digital circuits, The general low-frequency analog circuits, RS232, 485 isolated communication systems.

- Operating Temperature:-40℃～+85℃
- Fixed Input: 5V/12V/24V
- Unregulated Outpu: 5V/9V/12V/15V, ±5V/±9V/±12V/±15V, 5V/5V,9V/9V,12V/12V,15V/15V
- Package Type: SIP4/SIP6/SIP7/DIP8/DIP14
- I/O-Isolation: 1000VDC/1500VDC/3000VDC



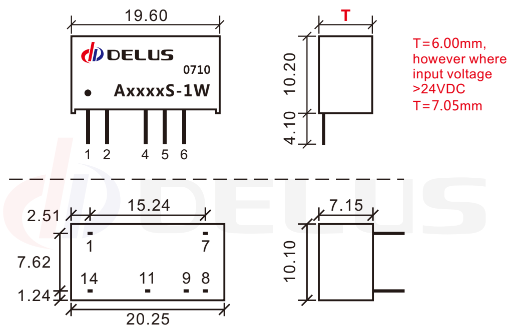
Application

- Industrial sector, Instrumentation
- Intelligent Transmitter, Sensors
- Network communication equipment

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	1W	5	4.5～5.5	A0505S-1W	±5	±100
				A0505D-1W		
				A0509S-1W	±9	±55
				A0509D-1W		
				A0512S-1W	±12	±42
				A0512D-1W		
				A0515S-1W	±15	±33
				A0515D-1W		
		12	10.8～13.2	A1205S-1W	±5	±100
				A1205D-1W		
				A1209S-1W	±9	±55
				A1209D-1W		
				A1212S-1W	±12	±42
				A1212D-1W		
				A1215S-1W	±15	±33
				A1215D-1W		
		24	21.6～26.4	A2405S-1W	±5	±100
				A2405D-1W		
				A2409S-1W	±9	±55
				A2409D-1W		
				A2412S-1W	±12	±42
				A2412D-1W		
				A2415S-1W	±15	±33
				A2415D-1W		

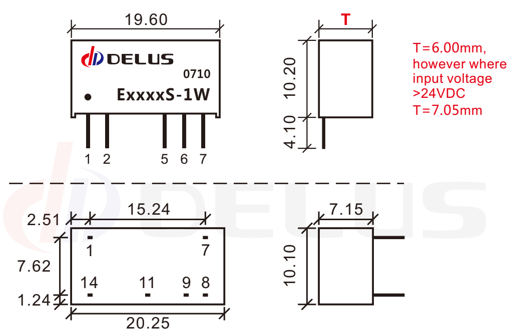
Outline Dimensions & Pin Connections



Note:Diameter of all terminal 0.5mm, Distance between all adjacent terminal 2.54mm

SIP	1	2	4	5	6	
Function	Vin	GND	-Vo	0V	+Vo	NC
DIP	14	1	11	8	9	7

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
3000	1W	5	4.5～5.5	E0505S-1W	±5	±100
				E0505D-1W		
				E0509S-1W	±9	±55
				E0509D-1W		
				E0512S-1W	±12	±42
				E0512D-1W		
				E0515S-1W	±15	±33
				A0515D-1W		
		12	10.8～13.2	E1205S-1W	±5	±100
				E1205D-1W		
				E1209S-1W	±9	±55
				E1209D-1W		
				E1212S-1W	±12	±42
				E1212D-1W		
				E1215S-1W	±15	±33
				E1215D-1W		
		24	21.6～26.4	E2405S-1W	±5	±100
				E2405D-1W		
				E2409S-1W	±9	±55
				E2409D-1W		
				E2412S-1W	±12	±42
				E2412D-1W		
				E2415S-1W	±15	±33
				E2415D-1W		



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SIP	1	2	5	6	7	
Function	Vin	GND	-Vo	0V	+Vo	NC
DIP	14	1	11	8	9	7

Fixed input, Isolated, Unregurated Series

Parameter

Output Specifications

Item	Test Conditions	MIN	TYP	MAX	UNITS
Line Regulation	For Vin change of ±1%			±1.2	%/%
Load Regulation	10% to 100% load		±10	±15	%
Temperature Drift	100% full load			0.03	%/℃
Ripple and Noise	20MHz bandwidth		100	200	mVp-p
Switching Frequency	Full load, nominal input		100		KHz

Common Specifications

Short Circuit Protection	1 Seconds
Cooling	Free air convection
Operating Temperature	-40℃ ~+85℃
Storage Temperature	-50℃ ~+130℃
Storage Humidity	≤95%
MTBF	>1, 000, 000 Hours

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	2W	5	4.5~5.5	A0505S-2W	±5	±200
				A0505D-2W		
				A0509S-2W	±9	±111
				A0509D-2W		
				A0512S-2W	±12	±83
				A0512D-2W		
				A0515S-2W	±15	±67
				A0515D-2W		
		12	10.8~13.2	A1205S-2W	±5	±200
				A1205D-2W		
				A1209S-2W	±9	±111
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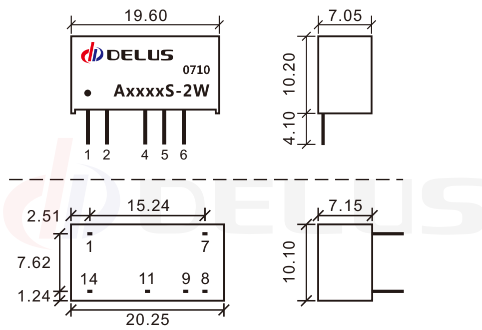
				A2405D-2W		
				A2409S-2W	±9	±111
				A2409D-2W		
				A2412S-2W	±12	±83
				A2412D-2W		
				A2415S-2W	±15	±67
				A2415D-2W		

Outline Dimensions & Pin Connections



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				E1209D-2W		
				E1212S-2W	±12	±83
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				E2409D-2W		
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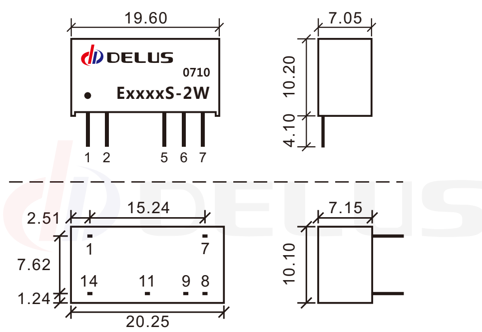
				E2412D-2W		
				E2415S-2W	±15	±67
				E2415D-2W		



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Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	1W 2W	5	4.5~5.5	A0505MS-1W	±5	±100
				A0505MS-2W		±200
				A0509MS-1W	±9	±55
				A0509MS-2W		±111
				A0512MS-1W	±12	±42
				A0512MS-2W		±83
				A0515MS-1W	±15	±33
				A0515MS-2W		±67
		12	10.8~13.2	A1205MS-1W	±5	±100
				A1205MS-2W		±200
				A1209MS-1W	±9	±55
				A1209MS-2W		±111
				A1212MS-1W	±12	±42
				A1212MS-2W		±83
				A1215MS-1W	±15	±33
				A1215MS-2W		±67
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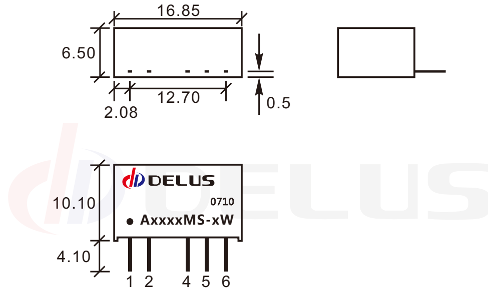
				A2405MS-2W		±200
				A2409MS-1W	±9	±55
				A2409MS-2W		±111
				A2412MS-1W	±12	±42
				A2412MS-2W		±83
				A2415MS-1W	±15	±33
				A2415MS-2W		±67

Outline Dimensions & Pin Connections



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				E0512MS-2W		±83
				E0515MS-1W	±15	±33
				E0515MS-2W		±67
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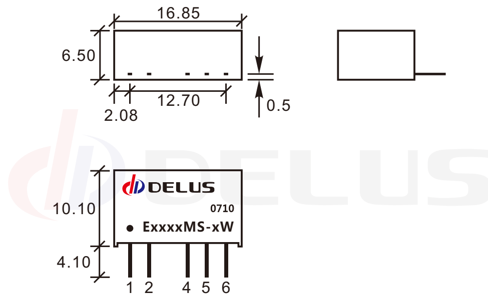
				E1205MS-2W		±200
				E1209MS-1W	±9	±55
				E1209MS-2W		±111
				E1212MS-1W	±12	±42
				E1212MS-2W		±83
				E1215MS-1W	±15	±33
				E1215MS-2W		±67
		24	21.6~26.4	E2405MS-1W	±5	±100
				E2405MS-2W		±200
				E2409MS-1W	±9	±55
				E2409MS-2W		±111
				E2412MS-1W	±12	±42
				E2412MS-2W		±83
				E2415MS-1W	±15	±33
				E2415MS-2W		±67



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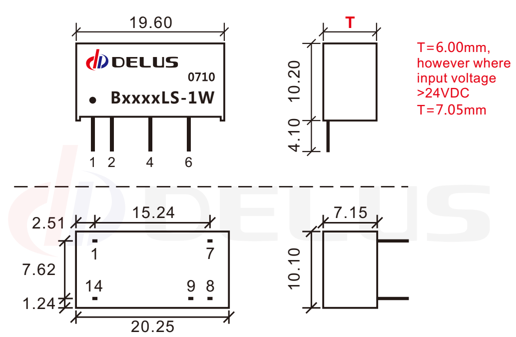
Function	Vin	GND	-Vo	0V	+Vo	
Pin	1	2	4	5	6	

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	1W	5	4.5~5.5	B0505LS-1W	5	200
				B0505LD-1W		
				B0509LS-1W	9	111
				B0509LD-1W		
				B0512LS-1W	12	83
				B0512LD-1W		
				B0515LS-1W	15	67
				B0515LD-1W		
		12	10.8~13.2	B1205LS-1W	5	200
				B1205LD-1W		
				B1209LS-1W	9	111
				B1209LD-1W		
				B1212LS-1W	12	83
				B1212LD-1W		
				B1215LS-1W	15	67
				B1215LD-1W		
		24	21.6~26.4	B2405LS-1W	5	200
				B2405LD-1W		
				B2409LS-1W	9	111
				B2409LD-1W		
				B2412LS-1W	12	83
				B2412LD-1W		
				B2415LS-1W	15	67
				B2415LD-1W		



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SIP	1	2	4	6		
Function	Vin	GND	-Vo	+Vo	NC	
DIP	14	1	8	9	7	

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Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
3000	1W	5	4.5～5.5	F0505LS-1W	5	200
				F0505LD-1W		
				F0509LS-1W	9	111
				F0509LD-1W		
				F0512LS-1W	12	83
				F0512LD-1W		
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				F0515LD-1W		
		12	10.8～13.2	F1205LS-1W	5	200
				F1205LD-1W		
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				F1209LD-1W		
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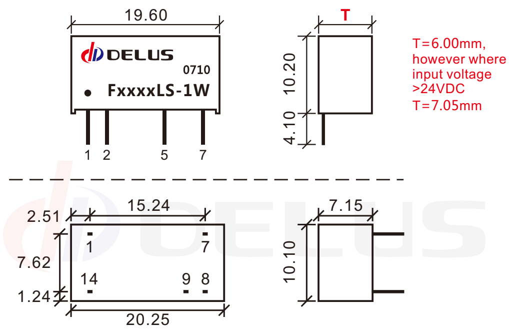
				F2415LD-1W		

Outline Dimensions & Pin Connections



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DIP	14	1	8	9	7		

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	2W	5	4.5～5.5	B0505S-2W	5	400
				B0505D-2W		
				B0509S-2W	9	222
				B0509D-2W		
				B0512S-2W	12	167
				B0512D-2W		
				B0515S-2W	15	133
				B0515D-2W		
		12	10.8～13.2	B1205S-2W	5	400
				B1205D-2W		
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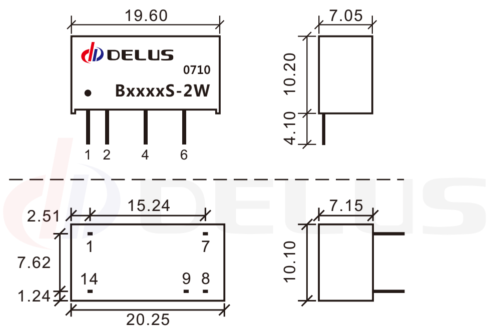
				B2415D-2W		



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				F1205D-2W		
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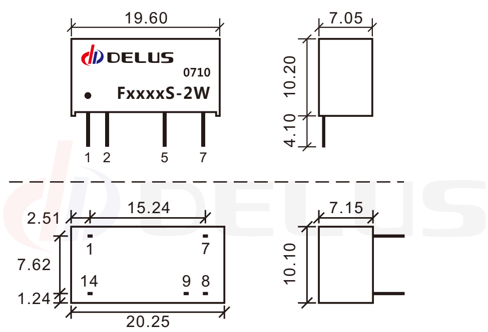

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				B0512MS-2W		167
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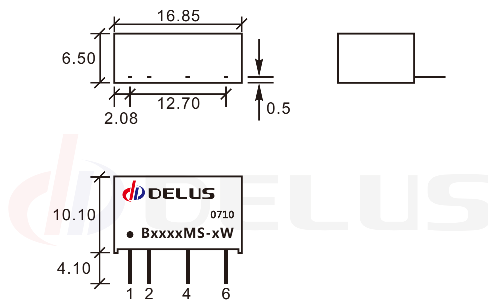

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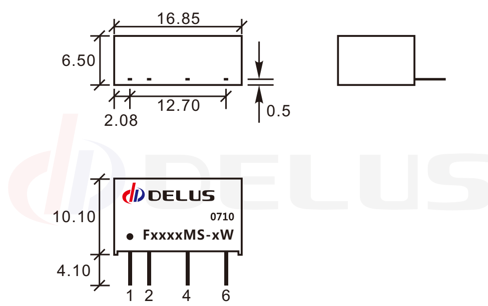
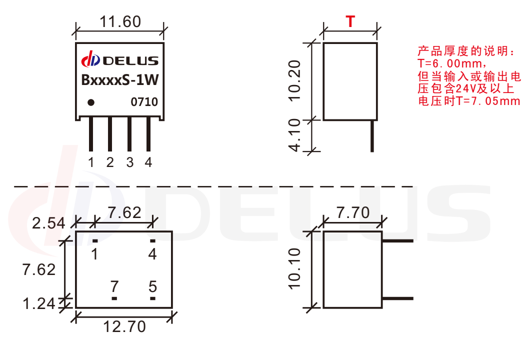
				F0515MS-1W	15	67
				F0515MS-2W		133
		12	10.8～13.2	F1205MS-1W	5	200
				F1205MS-2W		400
				F1209MS-1W	9	111
				F1209MS-2W		222
				F1212MS-1W	12	83
				F1212MS-2W		167
				F1215MS-1W	15	67
				F1215MS-2W		133
		24	21.6～26.4	F2405MS-1W	5	200
				F2405MS-2W		400
				F2409MS-1W	9	111
				F2409MS-2W		222
				F2412MS-1W	12	83
				F2412MS-2W		167
				F2415MS-1W	15	67
				F2415MS-2W		133



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	Vin	GND	-Vo	+Vo			
Pin	1	2	4	6			

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	1W	5	4.5～5.5	B0505S-1W	5	200
				B0505D-1W		
				B0509S-1W	9	111
				B0509D-1W		
				B0512S-1W	12	83
				B0512D-1W		
				B0515S-1W	15	67
				B0515D-1W		
		12	10.8～13.2	B1205S-1W	5	200
				B1205D-1W		
				B1209S-1W	9	111
				B1209D-1W		
				B1212S-1W	12	83
				B1212D-1W		
				B1215S-1W	15	67
				B1215D-1W		
		24	21.6～26.4	B2405S-1W	5	200
				B2405D-1W		
				B2409S-1W	9	111
				B2409D-1W		
				B2412S-1W	12	83
				B2412D-1W		
				B2415S-1W	15	67
				B2415D-1W		



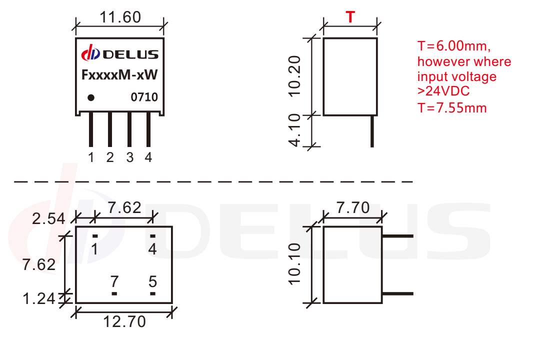
Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

SIP	2	1	3	4			
Function	Vin	GND	-Vo	+Vo			
DIP	4	1	7	5			

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
3000	1W	5	4.5～5.5	F0505M-1W F0505N-1W	5	200
				F0509M-1W F0509N-1W	9	111
				F0512M-1W F0512N-1W	12	83
				F0515M-1W F0515N-1W	15	67
		12	10.8～13.2	F1205M-1W F1205N-1W	5	200
				F1209M-1W F1209N-1W	9	111
				F1212M-1W F1212N-1W	12	83
				F1215M-1W F1215N-1W	15	67
		24	21.6～26.4	F2405M-1W F2405N-1W	5	200
				F2409M-1W F2409N-1W	9	111
				F2412M-1W F2412N-1W	12	83
				F2415M-1W F2415N-1W	15	67

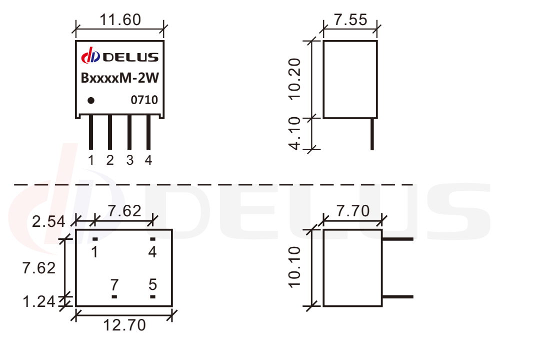
Outline Dimensions & Pin Connections



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

SIP	2	1	3	4			
Function	Vin	GND	-Vo	+Vo			
DIP	4	1	7	5			

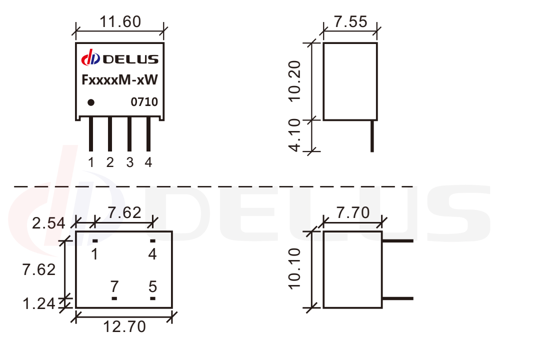
Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	2W	5	4.5～5.5	B0505M-2W B0505N-2W	5	400
				B0509M-2W B0509N-2W	9	222
				B0512M-2W B0512N-2W	12	167
				B0515M-2W B0515N-2W	15	133
		12	10.8～13.2	B1205M-2W B1205N-2W	5	400
				B1209M-2W B1209N-2W	9	222
				B1212M-2W B1212N-2W	12	167
				B1215M-2W B1215N-2W	15	133
		24	21.6～26.4	B2405M-2W B2405N-2W	5	400
				B2409M-2W B2409N-2W	9	222
				B2412M-2W B2412N-2W	12	167
				B2415M-2W B2415N-2W	15	133



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

SIP	2	1	3	4			
Function	Vin	GND	-Vo	+Vo			
DIP	4	1	7	5			

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
3000	2W	5	4.5～5.5	F0505M-2W F0505N-2W	5	400
				F0509M-2W F0509N-2W	9	222
				F0512M-2W F0512N-2W	12	167
				F0515M-2W F0515N-2W	15	133
		12	10.8～13.2	F1205M-2W F1205N-2W	5	400
				F1209M-2W F1209N-2W	9	222
				F1212M-2W F1212N-2W	12	167
				F1215M-2W F1215N-2W	15	133
		24	21.6～26.4	F2405M-2W F2405N-2W	5	400
				F2409M-2W F2409N-2W	9	222
				F2412M-2W F2412N-2W	12	167
				F2415M-2W F2415N-2W	15	133



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

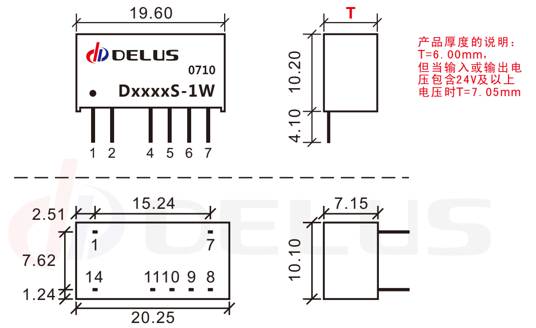
SIP	2	1	3	4			
Function	Vin	GND	-Vo	+Vo			
DIP	4	1	7	5			

Fixed input, Isolated, Unregurated Series

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	1W	5	4.5～5.5	D0505S-1W D0505D-1W	5/5	100/100
				D0509S-1W D0509D-1W	9/9	55/55
				D0512S-1W D0512D-1W	12/12	42/42
				D0515S-1W D0515D-1W	15/15	33/33
		12	10.8～13.2	D1205S-1W D1205D-1W	5/5	100/100
				D1209S-1W D1209D-1W	9/9	55/55
				D1212S-1W D1212D-1W	12/12	42/42
				D1215S-1W D1215D-1W	15/15	33/33
		24	21.6～26.4	D2405S-1W D2405D-1W	5/5	100/100
				D2409S-1W D2409D-1W	9/9	55/55
				D2412S-1W D2412D-1W	12/12	42/42
				D2415S-1W D2415D-1W	15/15	33/33

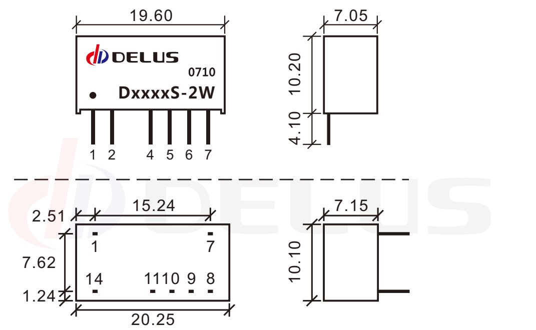
Outline Dimensions & Pin Connections



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

SIP	1	2	4	5	6	7	
Function	Vin	GND	-Vo2	+Vo2	-Vo1	+Vo1	NC
DIP	14	1	11	10	9	8	7

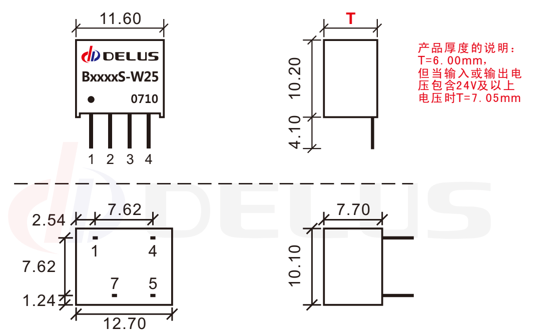
Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	2W	5	4.5～5.5	D0505S-2W D0505D-2W	5/5	200/200
				D0509S-2W D0509D-2W	9/9	111/111
				D0512S-2W D0512D-2W	12/12	83/83
				D0515S-2W D0515D-2W	15/15	67/67
		12	10.8～13.2	D1205S-2W D1205D-2W	5/5	200/200
				D1209S-2W D1209D-2W	9/9	111/111
				D1212S-2W D1212D-2W	12/12	83/83
				D1215S-2W D1215D-2W	15/15	67/67
		24	21.6～26.4	D2405S-2W D2405D-2W	5/5	200/200
				D2409S-2W D2409D-2W	9/9	111/111
				D2412S-2W D2412D-2W	12/12	83/83
				D2415S-2W D2415D-2W	15/15	67/67



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

SIP	1	2	4	5	6	7	
Function	Vin	GND	-Vo2	+Vo2	-Vo1	+Vo1	NC
DIP	14	1	11	10	9	8	7

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	0.25W	5	4.5～5.5	B0505S-W25 B0505D-W25	5	50
				B0509S-W25 B0509D-W25	9	28
				B0512S-W25 B0512D-W25	12	21
				B0515S-W25 B0515D-W25	15	17
		12	10.8～13.2	B1205S-W25 B1205D-W25	5	50
				B1209S-W25 B1209D-W25	9	28
				B1212S-W25 B1212D-W25	12	21
				B1215S-W25 B1215D-W25	15	17
		24	21.6～26.4	B2405S-W25 B2405D-W25	5	50
				B2409S-W25 B2409D-W25	9	28
				B2412S-W25 B2412D-W25	12	21
				B2415S-W25 B2415D-W25	15	17



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

SIP	2	1	3	4			
Function	Vin	GND	-Vo	+Vo			
DIP	4	1	7	5			

Fixed input, Isolated, Regurated Series

Feature

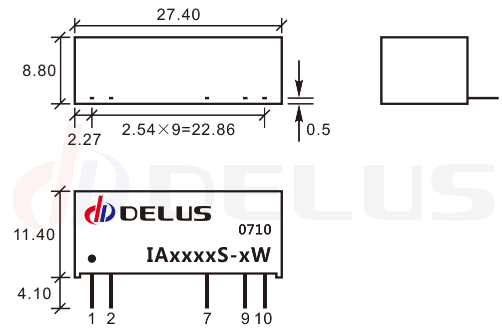
1Watt & 2Watts, Fixed input regulated output. The family has a good electromagnetic compatibility, the output ripple and noise is very Small, suitable for power supply stability (fluctuation range of less than ± 5%), the output voltage and ripple demanding situations, such as the A/D, D/A converter circuit.

- Operating Temperature: -40～+85℃
- Fixed Input: 5V/12V/24V
- Regulated Output: 5V/9V/12V/15V, ±5V/±9V/±12V/±15V
- Package Type: SIP7/SIP10/DIP24
- I/O-Isolation: 1500VDC/3000VDC

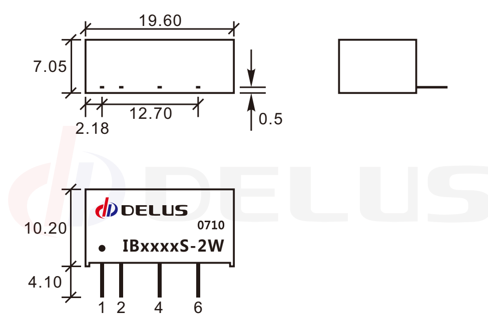
Application

- Industrial sector, Instrumentation
- Intelligent Transmitter, Sensors
- Safety barrier
- Electric Power Industry

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)	Outline Dimensions & Pin Connections
1000	2W	5	4.75～5.25	IA0505S-2W	±5	±200	
				IA0509S-2W	±9	±111	
				IA0512S-2W	±12	±83	
				IA0515S-2W	±15	±67	
		12	11.4～12.6	IA1205S-2W	±5	±200	
				IA1209S-2W	±9	±111	
				IA1212S-2W	±12	±83	
				IA1215S-2W	±15	±67	
		24	22.8～25.2	IA2405S-2W	±5	±200	Note:Diameter of all terminal 0.5mm, Distance between all adjacent terminal 2.54mm
				IA2409S-2W	±9	±111	
				IA2412S-2W	±12	±83	
				IA2415S-2W	±15	±67	

Function	Vin	GND	-Vo	0V	+Vo		
Pin	1	2	9	10	7		

1000	2W	5	4.75～5.25	IB0505S-2W	5	400	
				IB0509S-2W	9	222	
				IB0512S-2W	12	166	
				IB0515S-2W	15	133	
		12	11.4～12.6	IB1205S-2W	5	400	
				IB1209S-2W	9	222	
				IB1212S-2W	12	166	
				IB1215S-2W	15	133	
		24	22.8～25.2	IB2405S-2W	5	400	Note:Diameter of all terminal 0.5mm, Distance between all adjacent terminal 2.54mm
				IB2409S-2W	9	222	
				IB2412S-2W	12	166	
				IB2415S-2W	15	133	

Function	Vin	GND	-Vo	+Vo			
Pin	1	2	4	6			

Fixed input, Isolated, Regurated Series

Parameter

Output Specifications

Item	Test Conditions	MIN	TYP	MAX	UNITS
Voltage Accuracy	Standards recommended circuit			3	%
Line Regulation	Nominal load, the entire voltage range			±0.3	%/%
Load Regulation	10% to 100% load			±0.5	%
Temperature Drift	100% full load			0.03	%/℃
Ripple and Noise	20MHz bandwidth		10	30	mVp-p

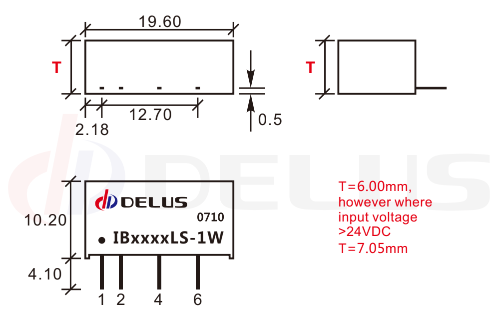
Common Specifications

Short Circuit Protection	1 Seconds
Cooling	Free air convection
Operating Temperature	-40℃～+85℃
Storage Temperature	-50℃～+130℃
Storage Humidity	≤95%
MTBF	>1,000,000 Hours

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	1W	5	4.75～5.25	IB0505LS-1W	5	200
				IB0509LS-1W	9	111
				IB0512LS-1W	12	83
				IB0515LS-1W	15	67
		12	11.4～12.6	IB1205LS-1W	5	200
				IB1209LS-1W	9	111
				IB1212LS-1W	12	83
				IB1215LS-1W	15	67
		24	22.8～25.2	IB2405LS-1W	5	200
				IB2409LS-1W	9	111
				IB2412LS-1W	12	83
				IB2415LS-1W	15	67

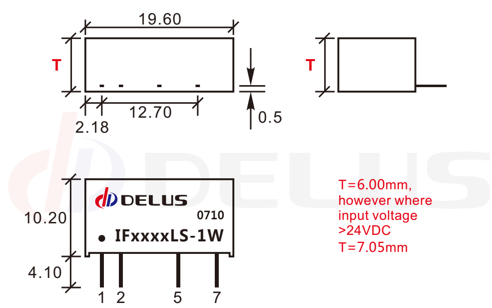
Outline Dimensions & Pin Connections



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	Vin	GND	-Vo	+Vo
Pin	1	2	4	6

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
3000	1W	5	4.75～5.25	IF0505LS-1W	5	200
				IF0509LS-1W	9	111
				IF0512LS-1W	12	83
				IF0515LS-1W	15	67
		12	11.4～12.6	IF1205LS-1W	5	200
				IF1209LS-1W	9	111
				IF1212LS-1W	12	83
				IF1215LS-1W	15	67
		24	22.8～25.2	IF2405LS-1W	5	200
				IF2409LS-1W	9	111
				IF2412LS-1W	12	83
				IF2415LS-1W	15	67



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

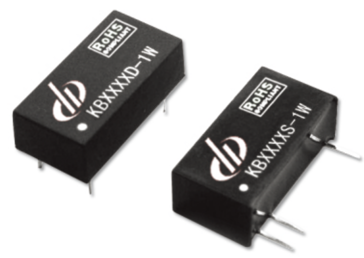
Function	Vin	GND	-Vo	+Vo
Pin	1	2	5	7

Wide input, Non-Isolated, Regurated Series

Feature

Wide input voltage range of non-isolated regulator output. The family has a quiescent power consumption is low, the output voltage stability, conversion efficiency, power density, Smaller, there is over-current protection and so on. Applies to: Wide voltage input, to power demanding circuit, such as handheld devices powered by lithium battery Equipment.

- Operating Temperature: -40～+85℃
- Norminal Input: 3.3V/5V/7.2V/12V/24V/48V
- Regulated Output: 3.3V/5V/9V/12V/15V
- Package Type: SIP3/DIP24



Application

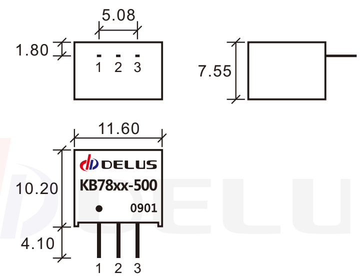
- Handheld / portable devices
- LCD screen backlight / contrast adjustment

Standard Product Type List

Isolation Voltage (VDC)	Mode No.	Input Range (VDC)	Output (VDC)	Output Current (mA)
Non-Isolated	KB7803-500	4.75～28	+3.3	+500
	KB7805-500	6.5～32	+5.0	+500
	KB7809-500	11～32	+9.0	+500
	KB7812-500	15～32	+12	+500
	KB7815-500	18～32	+15	+500

New

Outline Dimensions & Pin Connections



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	Vin	GND	+Vo				
Pin	1	2	3				

Parameter

Output Specifications

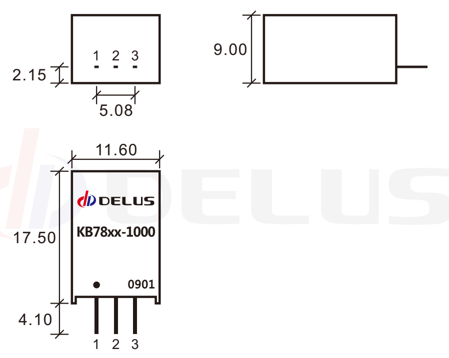
Item	Test Conditions	MIN	TYP	MAX	UNITS
Voltage Accuracy	Standards recommended circuit			±3	%
Line Regulation	Nominal load, the entire voltage range			±0.2	%/%
Load Regulation	10% to 100% load			±0.2	%
Temperature Drift	100% full load			0.03	%/℃
Ripple and Noise	20MHz bandwidth		10	100	mVp-p
Switching Frequency	Full load, nominal input		300		Khz

Common Specifications

Cooling	Free air convection
Operating Temperature	-40℃～+85℃
Storage Temperature	-50℃～+130℃
Storage Humidity	≤95%
MTBF	>1, 000, 000 Hours

Standard Product Type List

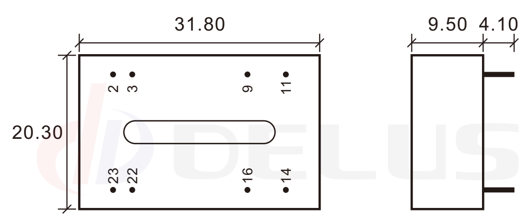
Isolation Voltage (VDC)	Mode No.	Input Range (VDC)	Output (VDC)	Output Current (mA)	Outline Dimensions & Pin Connections
Non-Isolated	**KB7803-1000**	4.75～28	+3.3	+1000	
	KB7805-1000	6.5～32	+5.0	+1000	
	KB7809-1000	11～32	+9.0	+1000	
	KB7812-1000	15～32	+12	+1000	
	KB7815-1000	18～32	+15	+1000	



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Pin	1	2	3
Function	Vin	GND	+Vo

Isolation Voltage (VDC)	Mode No.	Input Range (VDC)	Output (VDC)	Output Current (mA)
Non-Isolated	**KB7803-2000**	4.75～40	+3.3	+2000
	KB7805-2000	6.5～40	+5.0	+2000
	KB7809-2000	11～40	+9.0	+2000
	KB7812-2000	15～40	+12	+2000
	KB7815-2000	18～40	+15	+2000
	KB7824-2000	27～40	+15	+2000



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	Vin	GND	+Vo	GND
Pin	2,3	22,23	14	16

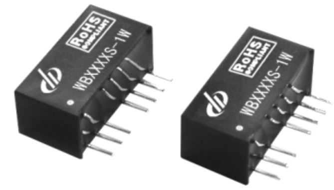
Wide input, Isolated, Regurated Series

Feature

Wide input, isolated & regulated. The series products have a wide input voltage range, starting current is small, the load characteristics of a good, small ripples, and so on. Applies to: industrial control system power, communication systems and other power supply circuits, especially for large input voltage range, and input and output must be isolated occasions.

- Operating Temperature: -40～+85℃
- Regulated Output: 5V/9V/12V/15V, ±5V/±9V/±12V/±15V
- Package Type: SIP7/SIP10/DIP24
- I/O-Isolation: 1500VDC/3000VDC

Application

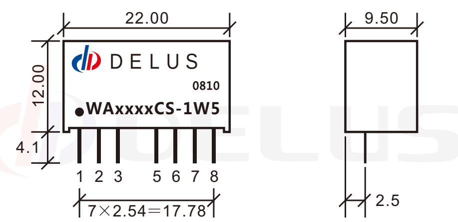


- Auto Electronics
- Handheld / portable devices
- Intelligent Transmitter, Sensors
- Safety barrier

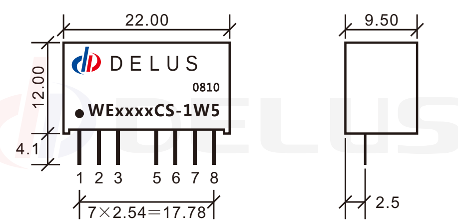
Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	1.5W	5	4.5～9.0	WA0505CS-1W	±5	±100
				WB0505CS-1W	5	200
				WA0509CS-1W	±9	±56
				WB0509CS-1W	9	111
				WA0512CS-1W	±12	±42
				WB0512CS-1W	12	83
				WA0515CS-1W	±15	±33
				WB0515CS-1W	15	67
		12	9～18	WA1205CS-1W5	±5	±150
				WB1205CS-1W5	5	300
				WA1209CS-1W5	±9	±83
				WB1209CS-1W5	9	166
				WA1212CS-1W5	±12	±63
				WB1212CS-1W5	12	125
				WA1215CS-1W5	±15	±50
				WB1215CS-1W5	15	100
		24	18～36	WA2405CS-1W5	±5	±150
				WB2405CS-1W5	5	300
				WA2409CS-1W5	±9	±83
				WB2409CS-1W5	9	166
				WA2412CS-1W5	±12	±63
				WB2412CS-1W5	12	125
				WA2415CS-1W5	±15	±50
				WB2415CS-1W5	15	100
		48	36～72	WA4805CS-1W5	±5	±150
				WB4805CS-1W5	5	300
				WA4809CS-1W5	±9	±83
				WB4809CS-1W5	9	166
				WA4812CS-1W5	±12	±63
				WB4812CS-1W5	12	125
				WA4815CS-1W5	±15	±50
				WB4815CS-1W5	15	100
3000	1.5W	5	4.5～5.5	WE0505CS-1W5	±5	±150
				WF0505CS-1W5	5	300
				WE0509CS-1W5	±9	±83
				WF0509CS-1W5	9	166
				WE0512CS-1W5	±12	±63
				WF0512CS-1W5	12	125
				WE0515CS-1W5	±15	±50
				WF0515CS-1W5	15	100
		12	9～18	WE1205CS-1W5	±5	±150
				WF1205CS-1W5	5	300
				WE1209CS-1W5	±9	±83
				WF1209CS-1W5	9	166
				WE1212CS-1W5	±12	±63
				WF1212CS-1W5	12	125
				WE1215CS-1W5	±15	±50
				WF1215CS-1W5	15	100
		24	18～36	WE2405CS-1W5	±5	±150
				WF2405CS-1W5	5	300
				WE2409CS-1W5	±9	±83
				WF2409CS-1W5	9	166
				WE2412CS-1W5	±12	±63
				WF2412CS-1W5	12	125
				WE2415CS-1W5	±15	±50
				WF2415CS-1W5	15	100

Outline Dimensions & Pin Connections



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Single	1	2	3	5	6		7	8
Function	GND	Vin	CTRL	NC	+Vo	0V	-Vo	CS
Dual	1	2	3	5	6	7	8	

Wide input, Isolated, Regurated Series

Parameter

Output Specifications

Item	Test Conditions	MIN	TYP	MAX	UNITS
Voltage Accuracy	Standards recommended circuit		±1.5	±3	%
Line Regulation	Nominal load, the entire voltage range			±0.3	%/%
Load Regulation	10% to 100% load			±0.8	%
Temperature Drift	100% full load			0.03	%/℃
Ripple and Noise	20MHz bandwidth		50	100	mVp-p
Switching Frequency	Full load, nominal input		300		Khz

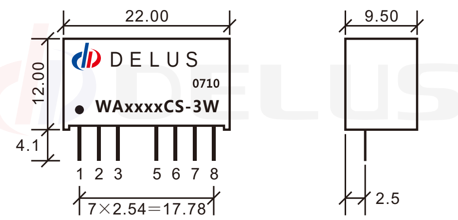
Common Specifications

Short Circuit Protection	Current limit, Auto-recovery
Operating Temperature	-40℃～+85℃
Storage Temperature	-50℃～+130℃
Storage Humidity	≤95%
MTBF	>1, 000, 000 Hours

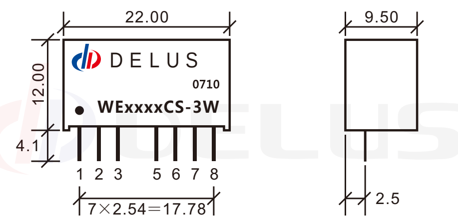
Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	3W	5	4.5～9.0	WA0505CS-2W	±5	±200
				WB0505CS-2W	5	400
				WA0509CS-2W	±9	±111
				WB0509CS-2W	9	222
				WA0512CS-2W	±12	±83
				WB0512CS-2W	12	166
				WA0515CS-2W	±15	±67
				WB0515CS-2W	15	133
		12	9～18	WA1205CS-3W	±5	±300
				WB1205CS-3W	5	600
				WA1209CS-3W	±9	±166
				WB1209CS-3W	9	333
				WA1212CS-3W	±12	±125
				WB1212CS-3W	12	250
				WA1215CS-3W	±15	±100
				WB1215CS-3W	15	200
		24	18～36	WA2405CS-3W	±5	±300
				WB2405CS-3W	5	600
				WA2409CS-3W	±9	±166
				WB2409CS-3W	9	333
				WA2412CS-3W	±12	±125
				WB2412CS-3W	12	250
				WA2415CS-3W	±15	±100
				WB2415CS-3W	15	200
		48	36～72	WA4805CS-3W	±5	±300
				WB4805CS-3W	5	600
				WA4809CS-3W	±9	±166
				WB4809CS-3W	9	333
				WA4812CS-3W	±12	±125
				WB4812CS-3W	12	250
				WA4815CS-3W	±15	±100
				WB4815CS-3W	15	200
3000	3W	12	9～18	WE1205CS-3W	±5	±300
				WF1205CS-3W	5	600
				WE1209CS-3W	±9	±166
				WF1209CS-3W	9	333
				WE1212CS-3W	±12	±125
				WF1212CS-3W	12	250
				WE1215CS-3W	±15	±100
				WF1215CS-3W	15	200
		24	18～36	WE2405CS-3W	±5	±300
				WF2405CS-3W	5	600
				WE2409CS-3W	±9	±166
				WF2409CS-3W	9	333
				WE2412CS-3W	±12	±125
				WF2412CS-3W	12	250
				WE2415CS-3W	±15	±100
				WF2415CS-3W	15	200

Outline Dimensions & Pin Connections



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm



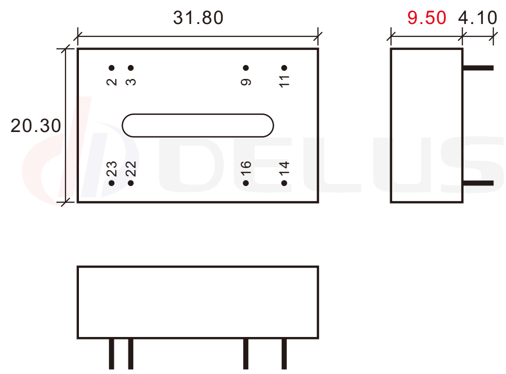
Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Single	1	2	3	5	6		7	8
Function	GND	Vin	CTRL	NC	+Vo	0V	-Vo	CS
Dual	1	2	3	5	6	7	8	

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	3W	5	4.5~9.0	WA0505P-3W WA0505MP-3W	±5	±300
				WA0509P-3W WA0509MP-3W	±9	±166
				WA0512P-3W WA0512MP-3W	±12	±125
				WA0515P-3W WA0515MP-3W	±15	±100
		12	9~18	WA1205P-3W WA1205MP-3W	±5	±300
				WA1209P-3W WA1209MP-3W	±9	±166
				WA1212P-3W WA1212MP-3W	±12	±125
				WA1215P-3W WA1215MP-3W	±15	±100
		24	18~36	WA2405P-3W WA2405MP-3W	±5	±300
				WA2409P-3W WA2409MP-3W	±9	±166
				WA2412P-3W WA2412MP-3W	±12	±125
				WA2415P-3W WA2415MP-3W	±15	±100
		48	36~72	WA4805P-3W WA4805MP-3W	±5	±300
				WA4809P-3W WA4809MP-3W	±9	±166
				WA4812P-3W WA4812MP-3W	±12	±125
				WA4815P-3W WA4815MP-3W	±15	±100

Outline Dimensions & Pin Connections

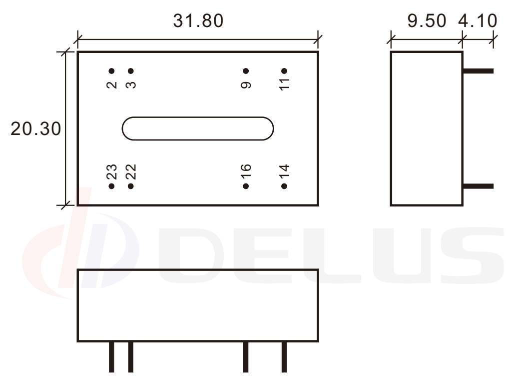


Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

P: Plastic resin with Fiberglass(UL 94V-0)
MP: Six-side shielded Aluminum with Non-Conductive base

Function	GND	Vin	+Vo	0V	-Vo		
Pin	2,3	22,23	14	9,16	11		

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
3000	3W	5	4.5~9.0	WE0505P-3W	±5	±300
				WE0509P-3W	±9	±166
				WE0512P-3W	±12	±125
				WE0515P-3W	±15	±100
		12	9~18	WE1205P-3W	±5	±300
				WE1209P-3W	±9	±166
				WE1212P-3W	±12	±125
				WE1215P-3W	±15	±100
		24	18~36	WE2405P-3W	±5	±300
				WE2409P-3W	±9	±166
				WE2412P-3W	±12	±125
				WE2415P-3W	±15	±100
		48	36~72	WE4805P-3W	±5	±300
				WE4809P-3W	±9	±166
				WE4812P-3W	±12	±125
				WE4815P-3W	±15	±100



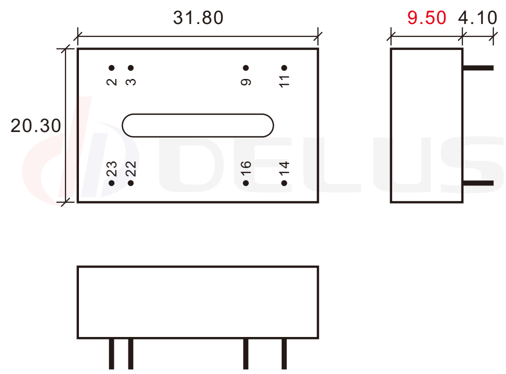
Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	GND	Vin	+Vo	0V	-Vo		
Pin	2,3	22,23	14	9,16	11		

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	1.5W	5	4.5～9.0	WB0505P-1W5	5	300
				WB0505MP-1W5		
				WB0509P-1W5	9	167
				WB0509MP-1W5		
				WB0512P-1W5	12	125
				WB0512MP-1W5		
				WB0515P-1W5	15	100
				WB0515MP-1W5		
		12	9～18	WB1205P-1W5	5	300
				WB1205MP-1W5		
				WB1209P-1W5	9	167
				WB1209MP-1W5		
				WB1212P-1W5	12	125
				WB1212MP-1W5		
				WB1215P-1W5	15	100
				WB1215MP-1W5		
		24	18～36	WB2405P-1W5	5	300
				WB2405MP-1W5		
				WB2409P-1W5	9	167
				WB2409MP-1W5		
				WB2412P-1W5	12	125
				WB2412MP-1W5		
				WB2415P-1W5	15	100
				WB2415MP-1W5		
		48	36～72	WB4805P-1W5	5	300
				WB4805MP-1W5		
				WB4809P-1W5	9	167
				WB4809MP-1W5		
				WB4812P-1W5	12	125
				WB4812MP-1W5		
				WB4815P-1W5	15	100
				WB4815MP-1W5		

Outline Dimensions & Pin Connections

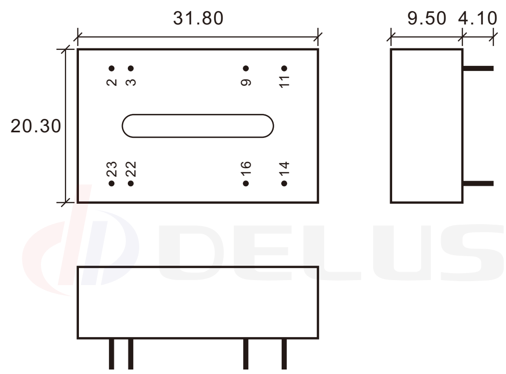


Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

P: Plastic resin with Fiberglass(UL 94V-0)
MP: Six-side shielded Aluminum with Non-Conductive base

Function	GND	Vin	+Vo	NC	-Vo		
Pin	2,3	22,23	14	9,11	16		

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
3000	1.5W	5	4.5～9.0	WF0505P-1W5	5	300
				WF0509P-1W5	9	166
				WF0512P-1W5	12	125
				WF0515P-1W5	15	100
		12	9～18	WF1205P-1W5	5	300
				WF1209P-1W5	9	166
				WF1212P-1W5	12	125
				WF1215P-1W5	15	100
		24	18～36	WF2405P-1W5	5	300
				WF2409P-1W5	9	166
				WF2412P-1W5	12	125
				WF2415P-1W5	15	100
		48	36～72	WF4805P-1W5	5	300
				WF4809P-1W5	9	166
				WF4812P-1W5	12	125
				WF4815P-1W5	15	100



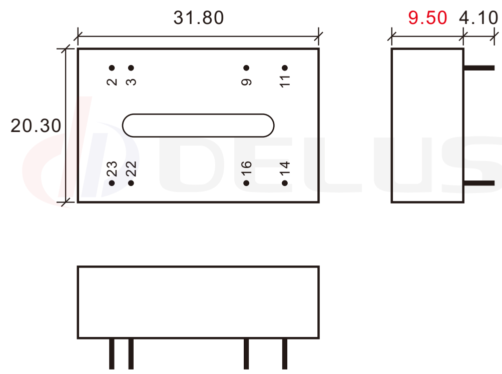
Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	GND	Vin	+Vo	0V	-Vo		
Pin	2,3	22,23	14	9,16	11		

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	3W	5	4.5~9.0	WB0505P-3W	5	600
				WB0505MP-3W		
				WB0509P-3W	9	333
				WB0509MP-3W		
				WB0512P-3W	12	250
				WB0512MP-3W		
				WB0515P-3W	15	200
				WB0515MP-3W		
		12	9~18	WB1205P-3W	5	600
				WB1205MP-3W		
				WB1209P-3W	9	333
				WB1209MP-3W		
				WB1212P-3W	12	250
				WB1212MP-3W		
				WB1215P-3W	15	200
				WB1215MP-3W		
		24	18~36	WB2405P-3W	5	600
				WB2405MP-3W		
				WB2409P-3W	9	333
				WB2409MP-3W		
				WB2412P-3W	12	250
				WB2412MP-3W		
				WB2415P-3W	15	200
				WB2415MP-3W		
		48	36~72	WB4805P-3W	5	600
				WB4805MP-3W		
				WB4809P-3W	9	333
				WB4809MP-3W		
				WB4812P-3W	12	250
				WB4812MP-3W		
				WB4815P-3W	15	200
				WB4815MP-3W		

Outline Dimensions & Pin Connections

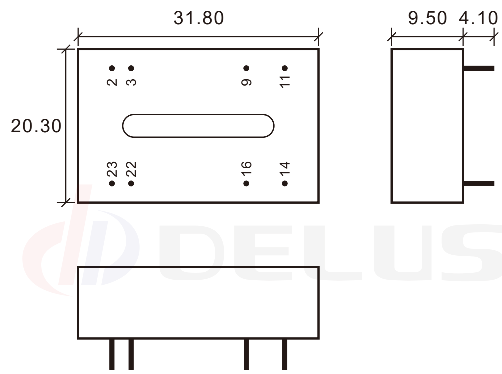


Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

P: Plastic resin with Fiberglass(UL 94V-0)
MP: Six-side shielded Aluminum with Non-Conductive base

Function	GND	Vin	+Vo	NC	-Vo		
Pin	2,3	22,23	14	9,11	16		

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
3000	3W	5	4.5~9.0	WF0505P-3W	5	600
				WF0509P-3W	9	333
				WF0512P-3W	12	250
				WF0515P-3W	15	200
		12	9~18	WF1205P-3W	5	600
				WF1209P-3W	9	333
				WF1212P-3W	12	250
				WF1215P-3W	15	200
		24	18~36	WF2405P-3W	5	600
				WF2409P-3W	9	333
				WF2412P-3W	12	250
				WF2415P-3W	15	200
		48	36~72	WF4805P-3W	5	600
				WF4809P-3W	9	333
				WF4812P-3W	12	250
				WF4815P-3W	15	200



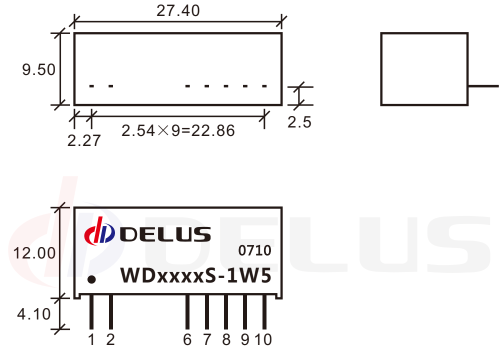
Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	GND	Vin	+Vo	0V	-Vo		
Pin	2,3	22,23	14	9,16	11		

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	1.5W	5	4.5～9.0	WD0505S-1W	5/5	100/100
				WD0509S-1W	9/9	56/56
				WD0512S-1W	12/12	42/42
				WD0515S-1W	15/15	33/33
		12	9～18	WD1205S-1W5	5/5	150/150
				WD1209S-1W5	9/9	83/83
				WD1212S-1W5	12/12	63/63
				WD1215S-1W5	15/15	50/50
		24	18～36	WD2405S-1W5	5/5	150/150
				WD2409S-1W5	9/9	83/83
				WD2412S-1W5	12/12	63/63
				WD2415S-1W5	15/15	50/50
		48	36～72	WD4805S-1W5	5/5	150/150
				WD4809S-1W5	9/9	83/83
				WD4812S-1W5	12/12	63/63
				WD4815S-1W5	15/15	50/50

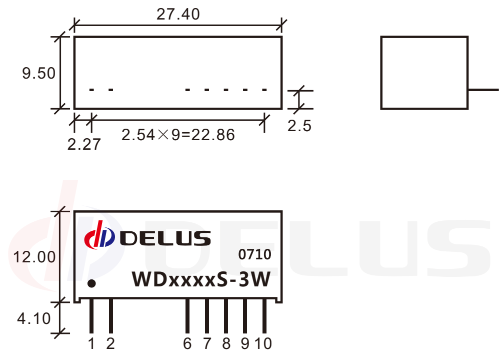
Outline Dimensions & Pin Connections



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	GND	Vin	+Vo2	-Vo2	CS	-Vo1	+Vo1
Pin	1	2	6	7	8	9	10

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	3W	5	4.5～9.0	WD0505S-2W	5/5	200/200
				WD0509S-2W	9/9	111/111
				WD0512S-2W	12/12	83/83
				WD0515S-2W	15/15	67/67
		12	9～18	WD1205S-3W	5/5	300/300
				WD1209S-3W	9/9	166/166
				WD1212S-3W	12/12	125/125
				WD1215S-3W	15/15	100/100
		24	18～36	WD2405S-3W	5/5	300/300
				WD2409S-3W	9/9	166/166
				WD2412S-3W	12/12	125/125
				WD2415S-3W	15/15	100/100
		48	36～72	WD4805S-3W	5/5	300/300
				WD4809S-3W	9/9	166/166
				WD4812S-3W	12/12	125/125
				WD4815S-3W	15/15	100/100



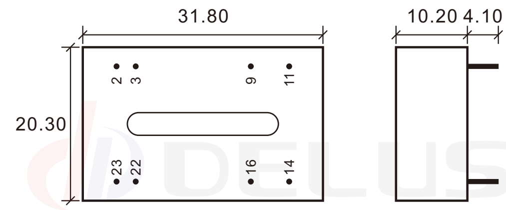
Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

Function	GND	Vin	+Vo2	-Vo2	CS	-Vo1	+Vo1
Pin	1	2	6	7	8	9	10

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1500	5W	12	9～18	WB1205MP-5W	5	1000
				VB1205MP-5W		
				WB1209MP-5W	9	555
				VB1209MP-5W		
				WB1212MP-5W	12	417
				VB1212MP-5W		
				WB1215MP-5W	15	333
				VB1215MP-5W		
		24	18～36	WB2405MP-5W	5	1000
				VB2405MP-5W		
				WB2409MP-5W	9	555
				VB2409MP-5W		
				WB2412MP-5W	12	417
				VB2412MP-5W		
				WB2415MP-5W	15	333
				VB2415MP-5W		
		48	36～72	WB4805MP-5W	5	1000
				VB4805MP-5W		
				WB4809MP-5W	9	555
				VB4809MP-5W		
				WB4812MP-5W	12	417
				VB4812MP-5W		
				WB4815MP-5W	15	333
				VB4815MP-5W		

Outline Dimensions & Pin Connections

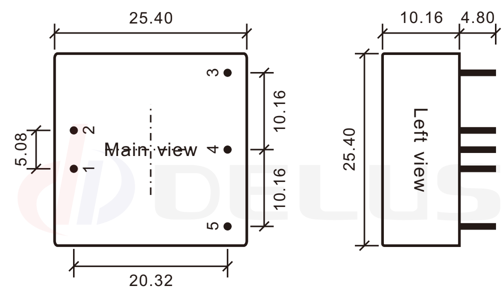


Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

P: Plastic resin with Fiberglass(UL 94V-0)
MP: Six-side shielded Aluminum with Non-Conductive base

Function	GND	Vin	+Vo	-Vo	NC
Pin	2,3	22,23	14	16	9,11

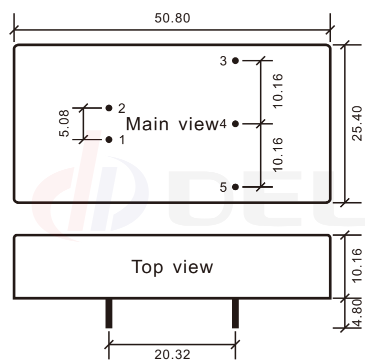
Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	5W	12	9～18	VA1205D-5W	±5	±500
				VB1205D-5W	5	1000
				VA1209D-5W	±9	±278
				VB1209D-5W	9	555
				VA1212D-5W	±12	±208
				VB1212D-5W	12	417
				VA1215D-5W	±15	±167
				VB1215D-5W	15	333
		24	18～36	VA2405D-5W	±5	±500
				VB2405D-5W	5	1000
				VA2409D-5W	±9	±278
				VB2409D-5W	9	555
				VA2412D-5W	±12	±208
				VB2412D-5W	12	417
				VA2415D-5W	±15	±167
				VB2415D-5W	15	333
		48	36～72	VA4805D-5W	±5	±500
				VB4805D-5W	5	1000
				VA4809D-5W	±9	±278
				VB4809D-5W	9	555
				VA4812D-5W	±12	±208
				VB4812D-5W	12	417
				VA4815D-5W	±15	±167
				VB4815D-5W	15	333



Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

VA	GND	Vin	+Vo	0V	-Vo
Pin	1	2	3	4	5
VB	GND	Vin	+Vo	NP	-Vo

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	10W	12	9～18	VA1205D-10W	±5	±1000
				VB1205D-10W	5	2000
				VA1209D-10W	±9	±555
				VB1209D-10W	9	1111
				VA1212D-10W	±12	±416
				VB1212D-10W	12	833
				VA1215D-10W	±15	±333
				VB1215D-10W	15	666
		24	18～36	VA2405D-10W	±5	±1000
				VB2405D-10W	5	2000
				VA2409D-10W	±9	±555
				VB2409D-10W	9	1111
				VA2412D-10W	±12	±416
				VB2412D-10W	12	833
				VA2415D-10W	±15	±333
				VB2415D-10W	15	666
		48	36～72	VA4805D-10W	±5	±1000
				VB4805D-10W	5	2000
				VA4809D-10W	±9	±555
				VB4809D-10W	9	1111
				VA4812D-10W	±12	±416
				VB4812D-10W	12	833
				VA4815D-10W	±15	±333
				VB4815D-10W	15	666



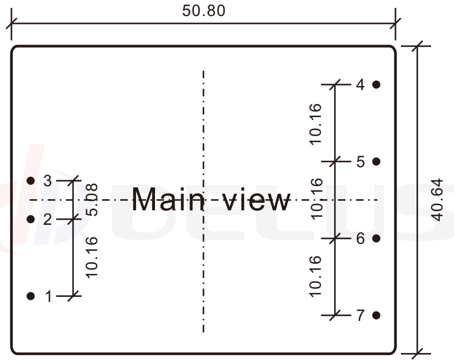
Note:
Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

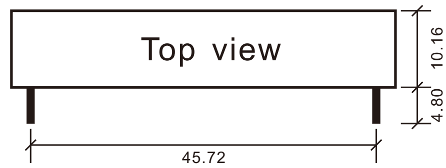
VA	GND	Vin	+Vo	0V	-Vo
Pin	1	2	3	4	5
VB	GND	Vin	+Vo	NP	-Vo

Standard Product Type List

Isolation Voltage (VDC)	Output Watts (W)	Input Voltage (VDC)	Input Range (VDC)	Mode No.	Output (VDC)	Output Current (mA)
1000	15W	12	9～18	VA1205D-15W	±5	±1500
				VB1205D-15W	5	3000
				VA1209D-15W	±9	±833
				VB1209D-15W	9	1666
				VA1212D-15W	±12	±625
				VB1212D-15W	12	1250
				VA1215D-15W	±15	±500
				VB1215D-15W	15	1000
		24	18～36	VA2405D-15W	±5	±500
				VB2405D-15W	5	1000
				VA2409D-15W	±9	±278
				VB2409D-15W	9	555
				VA2412D-15W	±12	±208
				VB2412D-15W	12	417
				VA2415D-15W	±15	±167
				VB2415D-15W	15	333
		48	36～72	VA4805D-15W	±5	±500
				VB4805D-15W	5	1000
				VA4809D-15W	±9	±278
				VB4809D-15W	9	555
				VA4812D-15W	±12	±208
				VB4812D-15W	12	417
				VA4815D-15W	±15	±167
				VB4815D-15W	15	333
1000	20W	12	9～18	VA1205D-20W	±5	±2000
				VB1205D-20W	5	4000
				VA1209D-20W	±9	±1111
				VB1209D-20W	9	2222
				VA1212D-20W	±12	±833
				VB1212D-20W	12	1666
				VA1215D-20W	±15	±666
				VB1215D-20W	15	1333
		24	18～36	VA2405D-20W	±5	±2000
				VB2405D-20W	5	4000
				VA2409D-20W	±9	±1111
				VB2409D-20W	9	2222
				VA2412D-20W	±12	±833
				VB2412D-20W	12	1666
				VA2415D-20W	±15	±666
				VB2415D-20W	15	1333
		48	36～72	VA4805D-20W	±5	±2000
				VB4805D-20W	5	4000
				VA4809D-20W	±9	±1111
				VB4809D-20W	9	2222
				VA4812D-20W	±12	±833
				VB4812D-20W	12	1666
				VA4815D-20W	±15	±666
				VB4815D-20W	15	1333

Outline Dimensions & Pin Connections





Note:Diameter of all terminal 0.5mm,
Distance between all adjacent terminal 2.54mm

VA	REM	GND	Vin	+Vo	0V	-Vo	TRIM
Pin	1	2	3	4	5	6	7
VB	REM	GND	Vin	NP	+Vo	-Vo	TRIM

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