L2WCP250 Series

250W, 120-277Vac Input, Programmable Constant Power LED Driver

*Near Field Communication controller

RoHS Compliant

*Product images are for illustrative purposes only and may vary from actual design.

Features

- Power Rating: 250W
- Input Voltage: 120-277Vac
- Constant current and constant voltage hybrid output
- Output current (1000mA-10400mA)
- Output current programmable with Near Field Communication controller
- Efficiency to 94%
- Compatible with 0-10V, PWM, Timer, Dim-to-off option, 12V/200mA AUX
- UL Type HL, Type TL
- Lightning, OVP, SCP, OTP, & Over Current Protection
- IP67
- 5-year warranty
- Surge Protection: Diff: 6kV, Common: 10kV

Application

- Indoor and outdoor applications

Model List*(See part number scheme for model number details)

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency 110V/220V	Certification
L2WCP250S1040ST-XYZ	120-277Vac	250W	24-36V	4100mA	10400mA	90%/92%	UL/cUL
L2WCP250S0690ST-XYZ	120-277Vac	250W	36-48V	2700mA	6900mA	90%/92%	UL/cUL
L2WCP250S0520ST-XYZ	120-277Vac	250W	48-80V	2000mA	5200mA	91%/93%	UL/cUL
L2WCP250S0320ST-XYZ	120-277Vac	250W	80-140V	1200mA	3200mA	92%/94%	UL/cUL
L2WCP250S0178ST-XYZ	120-277Vac	250W	140-233V	1000mA	1780mA	91%/93%	UL/cUL

(Add-J for J-Box, Ex.) L2WCP250SXXXST-J-XYZ; Contact Autec Sales for all options.)

Ordering options	
XY= Programmable	**Z=Dimming**
FC=Near Field Communication	**D=**DALI Dimming
	B=BLE Dimming

Technical Data

Input voltage range	120-277Vac
Frequency	47-63Hz
Power factor	> 0.99 @115Vac & 80~100% Full load, > 0.97 @230Vac & 80~100% Full load
Output voltage	24-233V
Output power	250W

■ Technical Data(cont.)

Ripple and Noise	3.0%Vo
Max input current	2A @115Vac, 0.799A@230Vac
Max input Power	250W
Efficiency	90-94%
Line Regulation	±0.3%
Load Regulation	±1%
Inrush Current	65A @230Vac cold start +25℃
Dimming	0~10V/ PWM/ Timer, Dim-to-off option
THD	< 20%
Current Programmable	Yes
Output Current Programmable Range	1000-10400mA
Over Current Protection	Protection type: Constant current limiting, recovers automatically after fault condition is removed
Short Current Protection	Hiccup mode, recovers automatically after fault condition is removed
Over Voltage Protection	1.3Vo, Protection type: Hiccup mode, recovers automatically after fault condition is removed
Over Temp. Protection	Hiccup mode, recovers automatically after fault condition is removed
Operating Temperature	-35~+70˚C
Max T-case Temp.	85˚C
Operating Humidity	10 ~ 100% RH non-condensing
Storage Temp., Humidity	-40 ~+85℃, 5 ~ 100% RH
Temp. Coefficient	±0.05%℃ (0~50℃)
Vibration	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
Dimensions	185x84.1x39mm 7.7x2.75x1.26 in
Packing	20pcs/carton
Weight	TBD

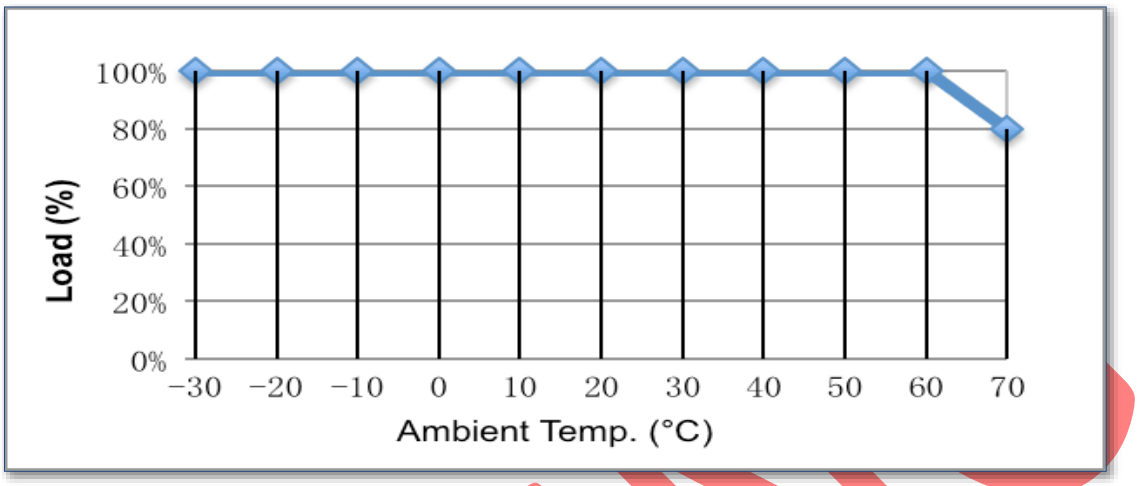
■ Safety Compliance

Safety Standards	UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P – O/P: 3.75kVAC
Isolation Resistance	I/P – O/P: 100M Ohms / 500VDC /25℃ / 70% RH
EMC Emission	Compliance to EN55015, EN61000-3-2 Class C (≥60% load); EN61000-3-3
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024

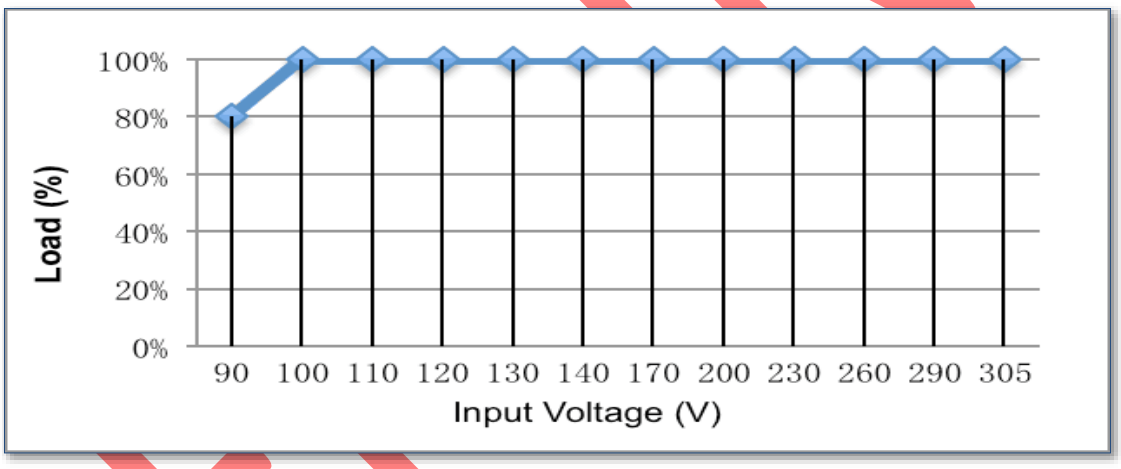
Disclaimer:

Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly of the LED Driver into the customer's assembled fixture, Autec requests advance notice. This request must be communicated to Autec in a timely manner and is recommended to be requested at time of issuing each purchase order.

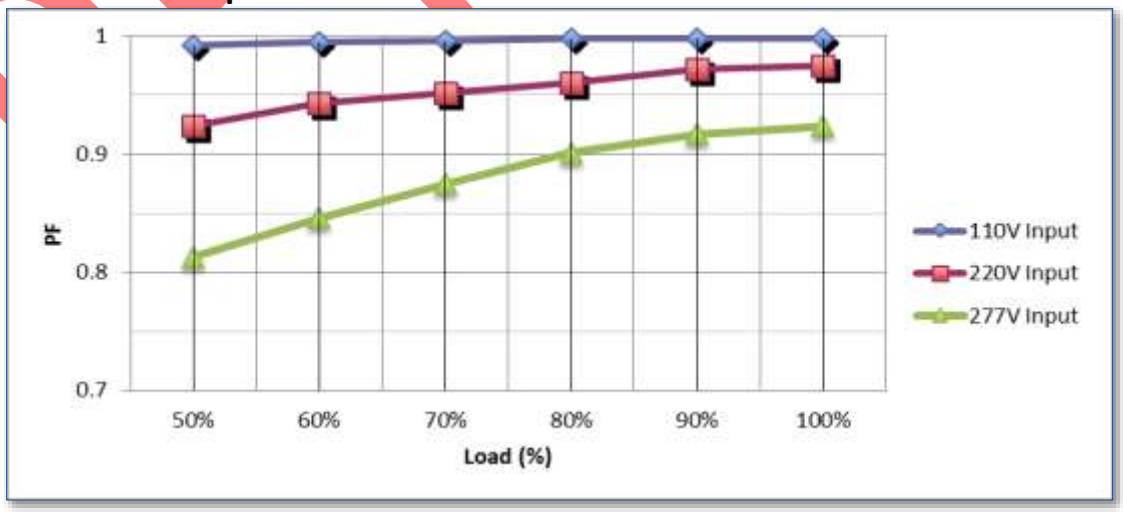
■ Derating curve



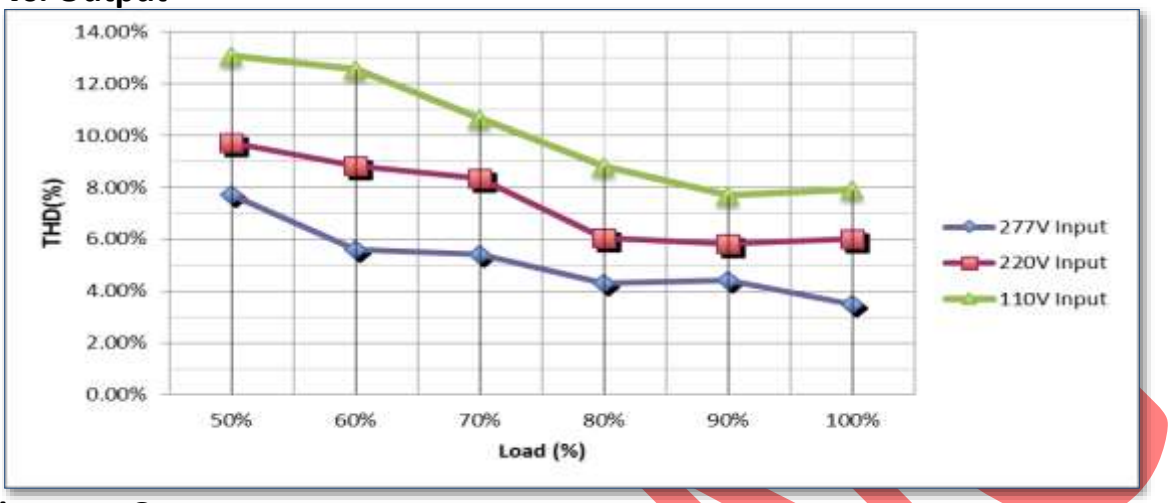
■ Static Characteristics



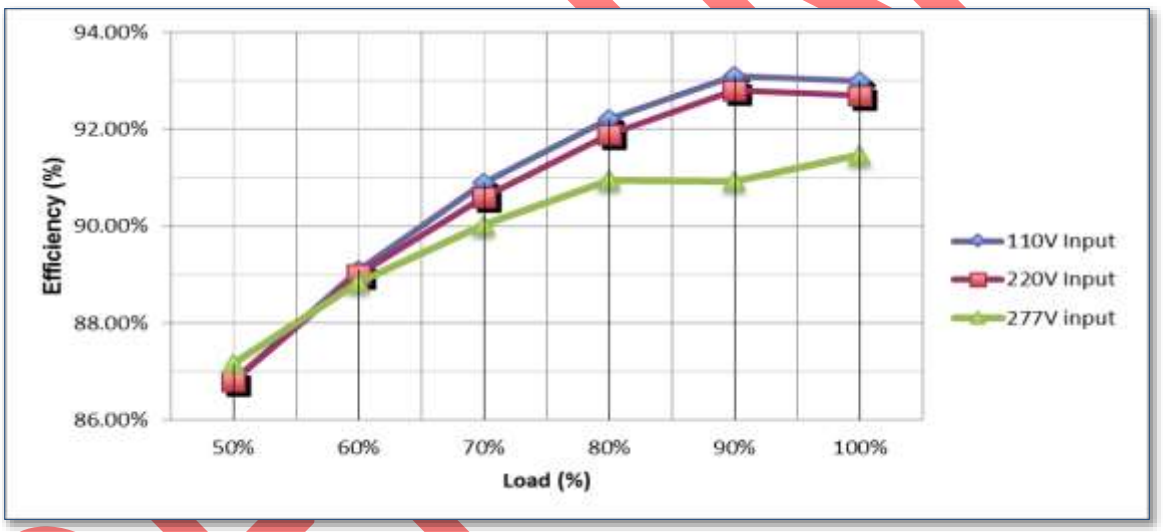
■ Power Factor vs. Output



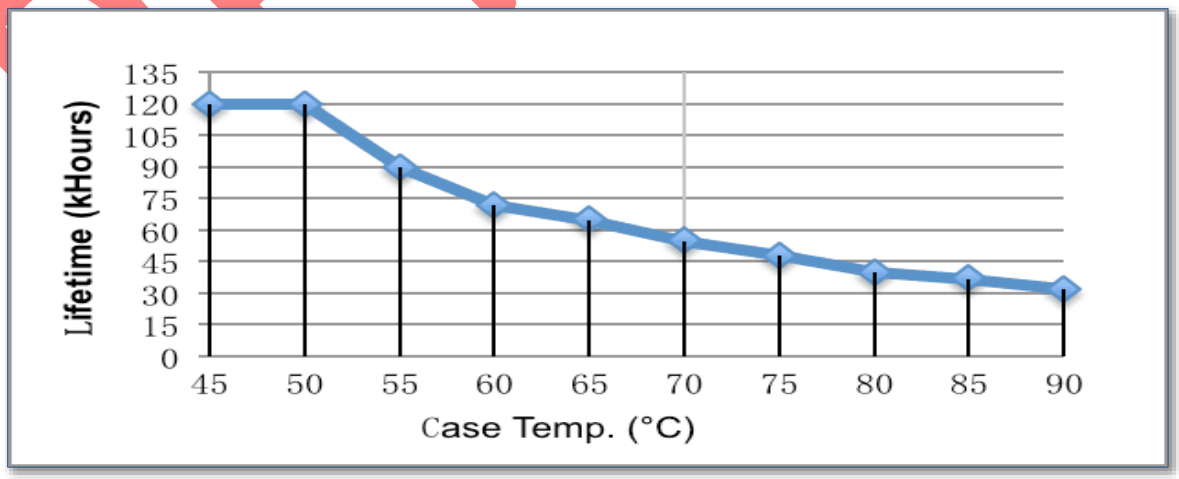
THD vs. Output



Efficiency vs Output



Lifetime vs Case Temp.



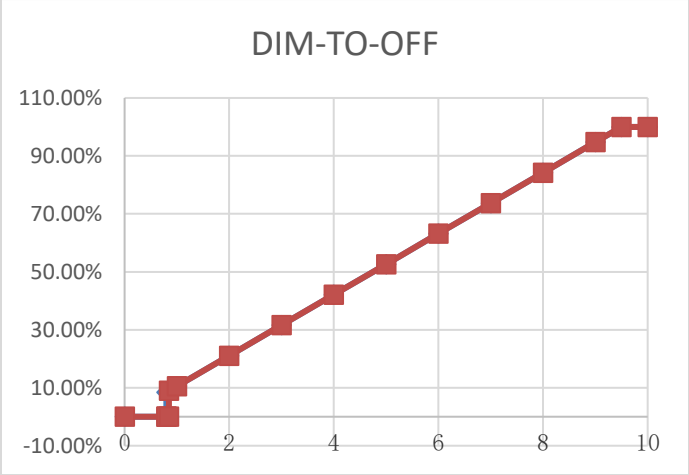
■ Near Field Communication Controller

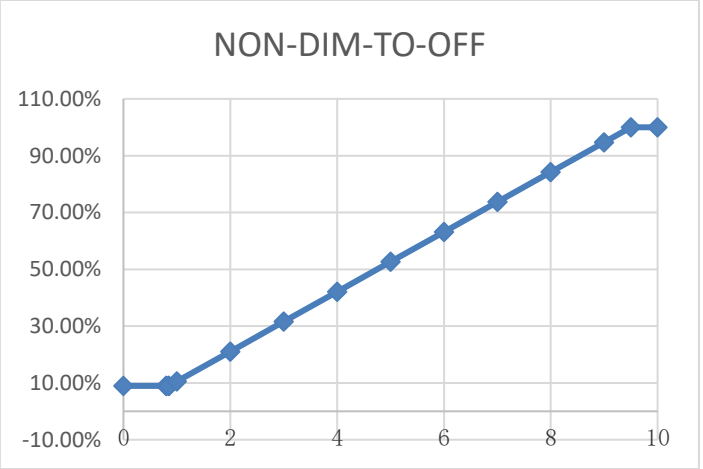
NOTE:

1. The Near Field Communication controller can program the output current, voltage and timer delays.
2. The Near Field Communication programming is a non-contact process, therefore much safer compared to traditional programming methods.
3. Power devices can be programmed without AC power applied to the driver.

■ Dimming

0-10V Analog Dimming &PWM Dimming



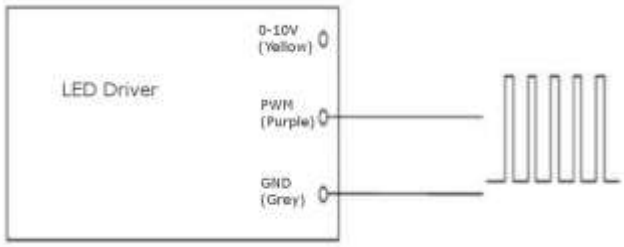


GND	Grey
Dimming wire 0-10V&PWM	Purple
12V AUX	Yellow
Input Dimming Voltage	0-10V
DIM+ Source Current	0-1mA
12V AUX Source Current	200mA
PWM Frequency Range	0.5-3KHZ
PWM high level	10V

NOTE:

1. Io is actual output current and Ir is rated current without dimming control.
2. For the driver to operate properly, the load voltage must be in the working voltage range.
3. We have DIM-TO-OFF option, which can be programmed by the programmer.
4. Maximum input voltage for the dimming wire is 12V.
5. AUX wire is only for source, can't connect to other voltage source.

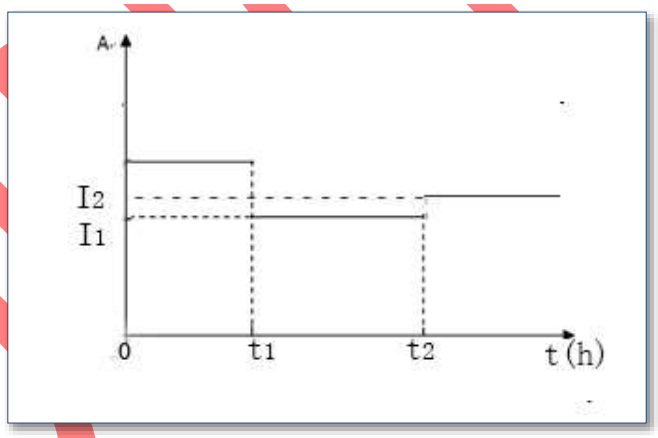
■ PWM Dimming



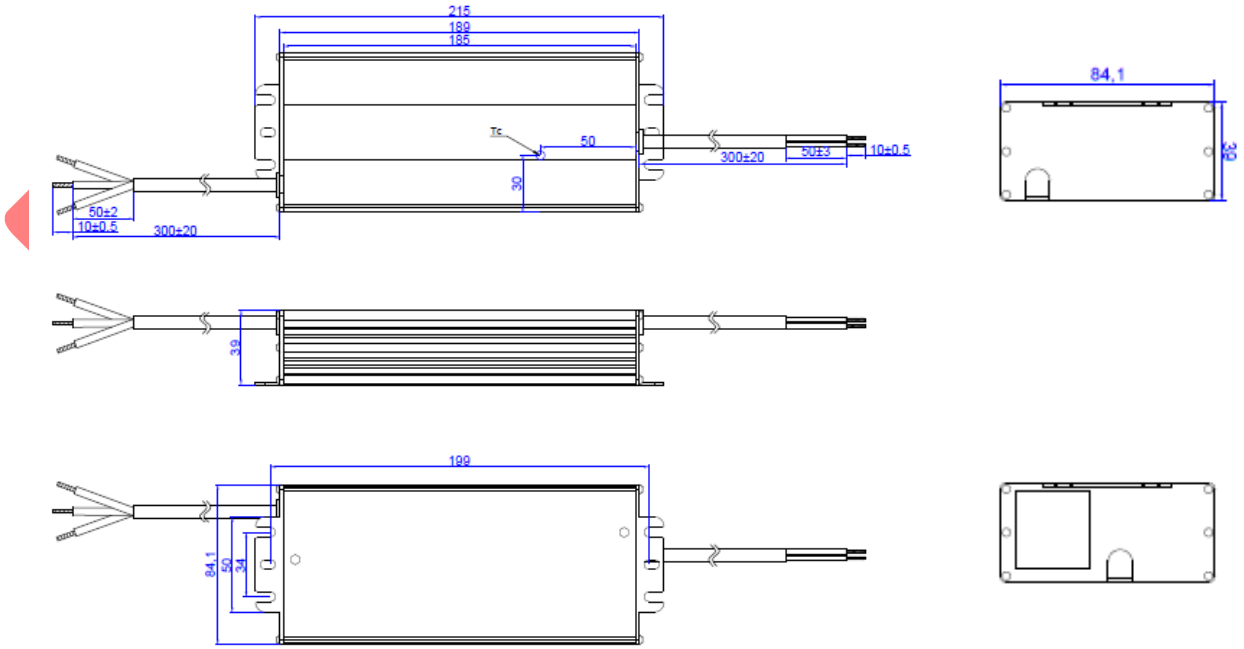
■ TIMER Dimming

NOTE:

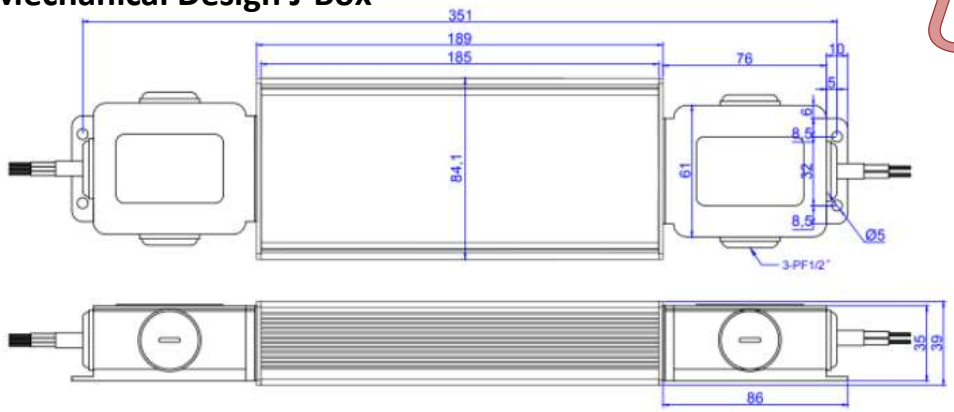
1. The dimming time can be programmed by the programmer.
2. The time of t1 and t2 can be set by the programmer.(0.5h step)
3. The value of I1 and I2 can be set by the programmer.
4. Changing the current from I1 to I2 may take a few min.



■ Mechanical Design



■ Mechanical Design J-Box



Part Number Scheme

L2 W C P 250 S XXXX S T-XYZ

- L2=LED Driver Series
- W=Input Voltage 120-277Vac
- C=Constant Power
- P=Programmable
- 250=Output Power(Watts)
- S=Single Output
- XXXX=Rated Current
  Ex.) 1040=10400mA
  0178=1780mA
- S=Metal case
- T=Class I, 3 Wire Input
- -XYZ=Programming and dimming options. *See ordering options table on page 1.

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***Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.**