

# ThinkRF P120

## Vehicular Power Conditioner

Designed to power in vehicle equipment

### Features and Benefits

- Universal DC Input Voltages (8-32VDC)
- Regulated 12VDC output
- Standard Mechanical Enclosure
- Industry standard connection points
- Low footprint
- Very low weight

### Applications

- Drive Testing
- Coverage Mapping
- Interference Hunting
- Regulatory Monitoring



# Description

The P120 vehicle power conditioner is designed to provide regulated power to equipment used in a vehicular environment whilst protecting the equipment from vehicular power transients. The product has been tested to meet high and low temperature requirements, shock, vibration based on MIL-STD-PRF-28800.

The product is designed to give a single regulated output of +12VDC under different input voltages ranging from +8V to +32V, but can easily be modified for different output voltages (please contact ThinkRF for alternatives). This is all provided in a small form factor suitable for vehicular use. The inputs and outputs are provided via strain-relieved 16 AWG cables with 2-pin square ML-XT style Molex connectors. There is a choice of input using standard vehicle cigarette lighter style connector, or loose lead stranded soldered cables. The output is cable is terminated with a LEMO series connector.

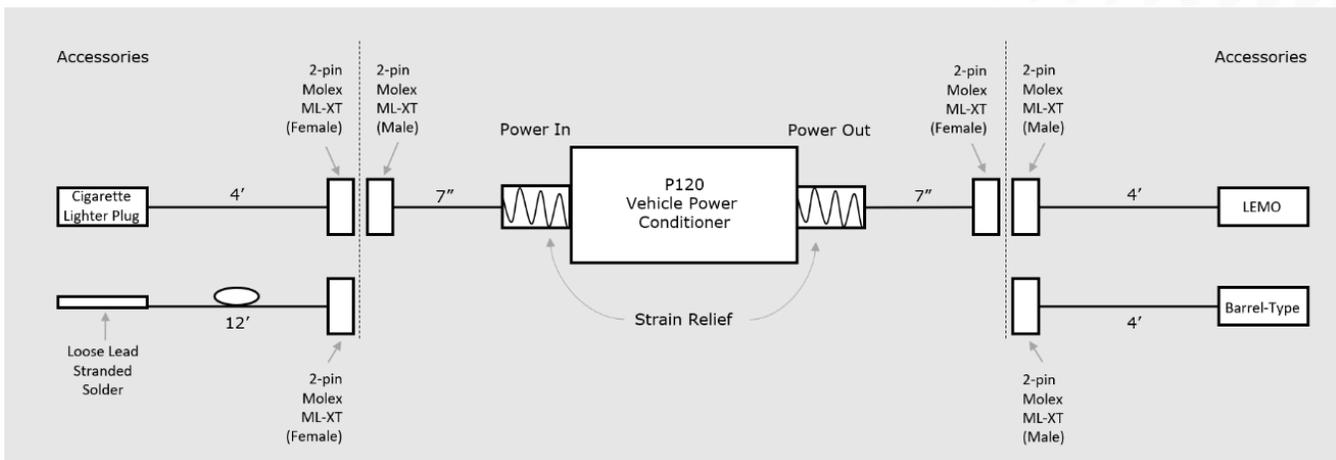


Figure 1: Schematic diagram of P120 Vehicle Power Conditioner indicating connector schemes and accessories



## Specifications

Parameter	Values	Comments
Input Voltage Range	+8 VDC to +32 VDC	Compatible with vehicular power supplies
Output Voltage	+ 12 VDC $\pm$ 5%	
Output Power	36 W	
Surge Protection Level	ISO 16750-2 (sec 4.6.4) ISO 16750-2 (sec 4.3) ISO 16750-2 (sec 4.6.3)	Load Dump Overvoltage Starting Profile
Dimensions (L x W x H)	131 mm x 62 mm x 34 mm	
Shock and Vibration	MIL-STD-PRF-28800 (Class 2) Only Sections: Non-Operating Temp (3.8.2.1) Operating Temp (3.8.2.2) Relative Humidity (3.8.2.3) Vibration Limits (3.8.4.1) Sinusoidal Vibration (3.8.4.2) Shock Functional (3.8.5.1)	
Input Cable and Connector to P120	Strain relief cable on physical box terminated with male 2-Pin Molex ML-XT connector (16 AWG, 7" (17.78 cm) length)	
Output Cable and Connector from P120	Strain relief cable on physical box terminated with female 2-Pin Molex ML-XT connector (16 AWG, 7" (17.78 cm) length)	

## Ordering Information

Base Unit	Part Number	Description
12 VDC output Vehicle Power Conditioner	P120 – 012	12VDC regulated output , +8-32VDC input via cigarette lighter plug or loose leads (2.4m)



## Accessories

Item*	Part Number	Description
Input Cable Cigarette Lighter Connector	P120-012-CL	Cigarette Lighter Plug input, 1.2m length 16 AWG cable terminated with female 2-Pin Molex MX-LT connector
Input Cable, Loose Lead, Stranded Solder	P120-012-LL	Loose Lead, Stranded Solder input 3.6 m (12 ft) length 14 AWG cable terminated with female 2-Pin Molex ML-XT connector
Output Cable with LEMO connector	P120-012-LE	LEMO 2B Series output 1.2 m (4 ft) length 16 AWG cable terminated with male 2-Pin Molex ML-XT connector
Output Cable with Barrel-type Connector	P120-012-PL	Barrel type connector output 1.2 m (4 ft) length 18 AWG cable terminated with male 2-Pin Molex ML-XT connector. Barrel-type connector with 11 mm length, 5.5 mm dia. outer, 2.5 mm dia. inner with center + and outer shell - polarity

\* See Figure 1

Contact us for more information

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