

# SmartPower™ Solutions

- Intrinsically safe design enables routine maintenance in hazardous areas
- Predictable life specified under installed conditions
- Robust design for use in harsh environments
- Low Level alerts for easy maintenance
- Keyed connection for easy and fail-safe replacement



## New Power Options

Introducing the Blue power module (Model No. A0701PBU), the latest addition to Emerson's SmartPower solutions. This new power module was designed with twice the capacity of the existing Black power module (Model No. 701PBKKF) along with advanced power management technology to optimize performance with the AMS 9420 wireless vibration transmitter. With this new option, the operating life for the AMS 9420 can be extended up to 5 years using a single power module.

Both power modules feature the same output and safety parameters, so in many cases they can be used interchangeably. It is important, however, when implementing the new Blue power module in a hazardous area to ensure that it is included as a permissible option on the certification for the transmitter itself.

Due to the larger size of the Blue power module, a new end cap will be required when upgrading an installed device from the Black power module to the Blue power module.

- Hazardous Area Certifications: US/Canada, ATEX and IECEx.
- Can be changed in hazardous areas.
- No need to remove the AMS 9420 from plant area to change power module.

### Extended life

- Up to 5-year life depending on update rate and environmental conditions.

### Easy maintenance

- Keyed connections for easy replacement and fail-safe connection.

### Safe robust design

- Short circuit protection.
- No special training required.
- Designed for harsh environments.

## Specifications

Description		
Humidity limits	0-100% relative humidity	
Temperature limits	Operating Limit	Storage Limit
	-40 to 185°F -40 to 85°C	-40 to 185°F -40 to 85°C
Rated voltage	7.2V	
Weight	14.3 oz. (405 g)	
Enclosure	Polybutylene terephthalate (PBT)	
Battery chemistry	Lithium-Thionyl chloride	
Electromagnetic compatibility (EMC)	Meets all relevant requirements of EN 61326-1: 2006: EN 61326-2-3: 2006.	
Vibration effect	No effect when tested per the requirements of IEC60770-1:	
Power Module Life Estimation	Up to 5-year life depending on update rate and environmental conditions <sup>1</sup> .	
Default acquisition rates		
Data Type	Collection Rate	
HART variables	60 minutes	
Energy bands	8 hours	
Thumbnail spectra	24 hours	
Waveform	1 month or on-alert	
Additional data	On-demand	

<sup>1</sup>Part of a well-formed network. Limited to 2-3 Network descendants. 70°F ambient temperature and with current versions of the AMS 9420 and AMS Machinery Manager Software. Operation at extreme temperatures or with older versions may significantly lower achievable operating life.

## Product Approvals

### European Directive Information

The most recent version of the EC Declaration of Conformity can be found at [www.emerson.com/ams](http://www.emerson.com/ams).

### Ordinary Location Certification

The transmitter has been examined and tested to determine that the design meets the basic electrical, mechanical, and fire protection requirements.

### Hazardous Location Certification

#### US/Canada



Certificate 70051230  
Marking: AEx/Ex ia IIC T4 Ga, Cl I, Div 1,  
Cl I, Zone 0 Gr. A,B,C,D  
Ta = -55°C to +85°C

#### Europe



Certificate Sira 15ATEX2332X  
Marking: II 1 G, Ex ia IIC T4 Ga  
Ta = -55°C to +85°C

#### International



Certificate IECEx CSA 15.0045X  
Marking: Ex ia IIC T4 Ga  
Ta = -55°C to +85°C

Refer to installation drawing D25686 and entity parameters:

$U_o/V_{oc} = 7.8V$       $I_o/I_{sc} = 2.16A$       $P_o = 0.83W$

$C_o/C_a = 3.0\mu F$       $L_o/L_a = 9.4\mu H$

## Compatibility

While specifically designed for use with the AMS 9420, the Model A0701PBU Blue power module may in certain circumstances also be compatible with other Emerson wireless transmitters. It has been certified intrinsically safe as indicated here; however, always refer to the individual certification requirements for each product to determine whether it is suitable for installation and in which environments.

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