

BU-9H16AF Base Unit BU-2H16AF Base Unit

Features

- ✓ DSSS Technology (900MHz @ 10mW, 2.4GHz @ 100mW)
- ✓ Eight FET Outputs/Inputs
- ✓ Eight Analog Inputs (0-12VDC or 4-20mA)
- ✓ Dual Connectors For Ease of Wiring
- ✓ Translucent Case (reduced hole drilling)
- ✓ Diagnostic Output LEDs
- ✓ Weatherproof
- ✓ CAN Bus Capable
- ✓ Compact Design



The versatile BU-9H16AF and BU-2H16AF feature eight FET (field effect transistor) high-side switching outputs or switch-to-ground digital inputs, eight 0-12VDC or 4-20mA analog inputs, and CAN Bus control capability. The versatile, programmable digital and analog outputs/inputs can be customized by Cervis to fit specific user applications.

The BU-9H16AF and BU-2H16AF accept a broad range of input power with operating voltages ranging from +10VDC to +28VDC. The rugged weatherproof enclosure allow the units to operate worry free in harsh weather conditions. Two 12-wire color-keyed weatherproof connecting cables connect the controlled devices.

Using Direct Sequence Spread Spectrum (DSSS) wireless technology at 900MHz or 2.4GHz, the base unit provides a robust link with a SmaRT Hand-Held Remote in congested radio environments. SmaRT base units feature seamless association to SmaRT hand-held remotes without the need to open either the handheld remote or base unit the case.

Specifications

Power

Operating V_{in}	+10 to +28VDC
Safe Power	+6.5 to +32VDC

Environment

Operating Temp	-20°C to 55°C (-4°F to 131°F)
Storage Temp	-40°C to 85°C (-40°F to 185°F)
Humidity	0 to 100%

Enclosure

Dimensions	119mm x 133mm x 36mm (5.24" x 4.69" x 1.42")
Durability	High Impact Polymer
Mounting	7.4mm (0.29") dia. holes 102mm center-to-center (4" center-to-center)

Outputs/Inputs

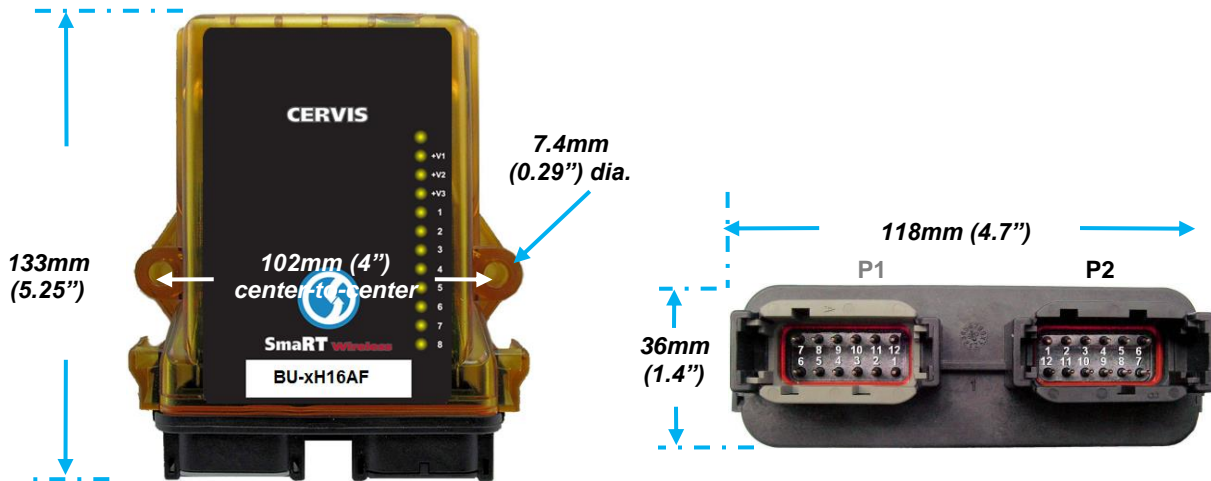
Eight Digital	FET –Open Drain; factory configurable Input/Output
Eight Analog	0–12V or 4–20mA; factory configurable Input/Output
Current	4A Per channel 15A Max. @ 55°C

Indicators (red LEDs)

Reverse Bat	ON – Fault Improper connections
+V1	ON – OK
+V2	ON – OK
+V3	ON – OK
1 (STATUS)	WINK – Needs Upgrade SLOW – Normal FAST – No Association ON – Link Lost
2 (SERIAL)	ON – Active
3 (RADIO RX)	ON – Active
4 (RADIO TX)	ON – Active
5 (ERROR)	ON – Error
6 (DIGITAL Out)	ON – Active
7 (DIGITAL In)	ON – Active
8 (ANALOG OUT)	ON – Active

Radio	BU-9H16AF	BU-2H16AF
Frequency	906-924MHz	2405-2580MHz
Power	10mW	100mW
License	License Free	
Modulation	DSSS	
Antenna	Internal or External (RP-TNC)	
Umbilical Communications (option)		
CAN Bus	SAE J1939	

Mounting Dimensions/P1 and P2 Pinout and Wiring



SmaRT BU-2H16AF Pinout

P1 Pin	Assignment	P1 Pin	Assignment
P1:1	+VDC	P1:7	AIO 1
P1:2	+VDC	P1:8	AIO 3
P1:3	DIO 6	P1:9	DIO 7
P1:4	DIO 8	P1:10	DIO 5
P1:5	AIO 4	P1:11	-VDC
P1:6	AIO 2	P1:12	-VDC

P2 Pin	Assignment	P2 Pin	Assignment
P2:1	+VDC	P2:7	CANL
P2:2	DIO 4	P2:8	AIO 8
P2:3	DIO 2	P2:9	AIO 6
P2:4	AIO 5	P2:10	DIO 1
P2:5	AIO 7	P2:11	DIO 3
P2:6	CANH	P2:12	-VDC

SmaRT BU-2H16AF Options

Name	Freq.	RF Power	Type	Input Power	Serial Port	Analog Channels	Antenna
BU-2H16AF-INT-CN-8F-8V	2.4GHz	100mW	16 FET- Analog	7-28VDC	CAN	(8) 0-10V OUT	Internal
BU-2H16AF-EXT-CN-8F-8V	2.4GHz	100mW	16 FET- Analog	7-28VDC	CAN	(8) 0-10V OUT	External
BU-2H16AF-INT-CN-8F-8A	2.4GHz	100mW	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA OUT	Internal
BU-2H16AF-EXT-CN-8F-8A	2.4GHz	100mW	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA OUT	External
BU-2H16AF-INT-CN-8F-8V	2.4GHz	100mW	16 FET- Analog	7-28VDC	CAN	(8) 0-10V IN	Internal
BU-2H16AF-EXT-CN-8F-8V	2.4GHz	100mW	16 FET- Analog	7-28VDC	CAN	(8) 0-10V IN	External
BU-2H16AF-INT-CN-8F-8A	2.4GHz	100mW	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA IN	Internal
BU-2H16AF-EXT-CN-8F-8A	2.4GHz	100mW	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA IN	External
BU-9H16AF-INT-CN-8F-8V	900MHz	10mW	16 FET- Analog	7-28VDC	CAN	(8) 0-10V OUT	Internal
BU-9H16AF-EXT-CN-8F-8V	900MHz	10mW	16 FET- Analog	7-28VDC	CAN	(8) 0-10V OUT	External
BU-9H16AF-INT-CN-8F-8A	900MHz	10mW	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA OUT	Internal
BU-9H16AF-EXT-CN-8F-8A	900MHz	10mW	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA OUT	External
BU-9H16AF-INT-CN-8F-8V	900MHz	10mW	16 FET- Analog	7-28VDC	CAN	(8) 0-10V IN	Internal
BU-9H16AF-EXT-CN-8F-8V	900MHz	10mW	16 FET- Analog	7-28VDC	CAN	(8) 0-10V IN	External
BU-9H16AF-INT-CN-8F-8A	900MHz	10mW	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA IN	Internal
BU-9H16AF-EXT-CN-8F-8A	900MHz	10mW	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA IN	External
BU-016AF-CN-8F-8V	NA	NA	16 FET- Analog	7-28VDC	CAN	(8) 0-10V OUT	Internal
BU-016AF-CN-8F-8A	NA	NA	16 FET- Analog	7-28VDC	CAN	(8) 4-20mA OUT	External
BU-016AF-CN-8F-8V	NA	NA	16 FET- Analog	7-28VDC	CAN	(8) 0-10V IN	Internal
BU-016AF-CN-8F-8A	NA	NA	16 FET- Analog	7-28VDC	CAN	(8) 4-10mA IN	External

✓ **Note:** BU-xH16AF-CAN units are internally terminated at 3.3kΩ. Termination can be removed at the factory.