BAS WS302

BA SYSTEMS
BUILDING AUTOMATION SYSTEMS

Datasheet

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BAS WS302 belongs to a family of programmable controllers designed to suit the needs of most installations. BAS WS302 is well suited to act as an internet gateway for many different types of equipment attached to its ports.

BAS WS302 contains all elements enabling control and monitoring, this includes PID elements, trendcurve data collection, timers, alarmhandling etc.

BAS WS302 contains 2 Digital input I/O channels.

All BAS Series controllers can read and/or write data directly from other BAS Series controllers.

BAS WS302 can be mounted on a DIN 36 rail.

BAS WS302 can communicate via RS485, Ethernet, RS232, M-Bus and via an optional module, supporting Wireless M-Bus, Kamstrup Meter interface and if required a data interface modem.

BAS WS302 can function as a standalone unit or as a part of a larger system ie. using BAS SCADA.

BAS WS302 can be connected to foreign systems via BACnet, Modbus/TCP or BAS OPC

BAS WS302 has a built-in webserver and supports a full html5 based graphical interface that can be be displayed on any browser, ie. Internet Explorer, Google Chrome, Firefox etc. and on almost any computer or device, ie. Microsoft Windows, Linux, Mac, iOS (iPhone and iPad devices) and Android devices

BA System applies:
- Minimum 10 years of service guarantee
- Minimum 10 years of supply guarantee of existing or compatible product.

Technical data	
Power supply:	24 VAC/VDC 6W
Temperature area	Storage -20 °C to +70 °C Operational -10°C to +60°C
Humidity	Max. 90% RH, non condensating
Mechanical	ABS/PC, IP20 115 x 86 x 37.5 mm 160 g
Real time clock	± 12 minutes pr. year at 20°C. RTC can run for more than 1 year without power supply. Can be updated via SCADA or an internet connection
Communication	10/100 Mbit ethernet USB-OTG 2xRS232 M-Bus with support for up to 20 heatmeters 3-wire RS485 multidrop Option Module socket
Digital input	2 channels for potential free contacts. Both channels can be configured for counting.

BAS WS302 is designed to be an easy to configure "multiple purpose" controller. It can be mounted close to the equipment that is to be controlled so that the wiring effort will be minimal.

BAS WS302 is microprocessor based and consists of a motherboard with versatile communication possibilities.

BAS WS302 can read and/or write data to other BAS Series controllers via TCP/IP. Also data from M-Bus and Modbus can be used.

Powerloss
BAS WS302 utilizes flash and memory and battery backup to ensure that the unit starts correctly after a powerloss

Clock
BAS WS302 uses a RTC (real time clock) so that the correct time is used. Also the clock can be synchronized from a SCADA server or from the internet.

Daylight savings time (DST)
BAS WS302 changes automatically between standard time and DST. This function can also be deactivated.

Digital inputs:
The digital inputs can be used to detect alarms, read status indicators, aso. The digital inputs have an internal power supply. They can also be used to count pulses.

Ethernet:
The ethernet can be used for datacollection/ comunication via BACnet/IP, ModBus/Master, WWW, BAS SCADA, foreign SCADA via BAS-OPC, ModBus/Slave and communication with other controllers in the BAS Series

USB OTG:
The USB OTG can be used by the BAS Tool to configure, backup and update the controller

Option Module Socket:
The BAS WS302 has an internal socket for connection of one option module. The option modules supports the following types:
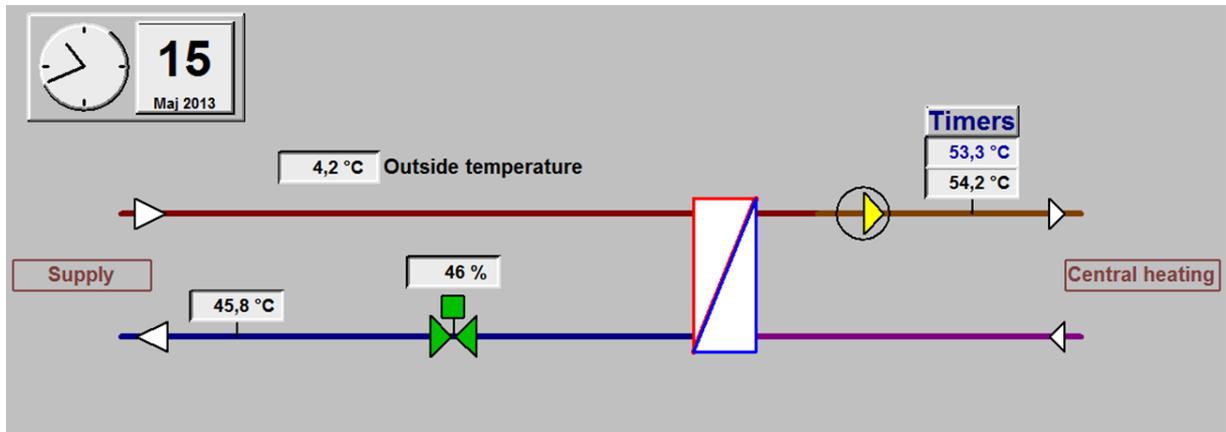• BAS_KMST
• BAS_WMBUS
• BAS_GPRS

BAS KMST: This module is used for cabled connection with a Kamstrup meter. When mounted there will be no need for the Kamstrup RS232 cable. There is support for KMP (Kamstrup Meter Protocol) and the older Multical/Maxical optical eye protocol.

BAS WMBus: This module is used for Wireless M-Bus communication using the OMS protocol with full support for encryption. The module can support up to 62 meters.

BAS GPRS: This module implements a data modem connection. It supports 4G networks with 2G/3G fallback option.

Example web interface

Communication

BAS WS302 has many communication possibilities:

	Interfaces					
Protocols	RS232	RS485	M-Bus	TCP/IP	Option Module BAS WMBus	Option Module BAS KMST*
BACnet				Slave		
Modbus	Master	Master/ Slave				
M-Bus	Master		Master			
BAS Native				Master/ Slave		
WM-Bus					Master	
KMP/Multical						Master

*) **BAS KMST** is an option module that can be connected to various Kamstrup meters. When this module is used there is no need for any special Kamstrup cable. The BAS KMST can be connected directly to the Kamstrup meter. There is support for the KMP protocol and the older optical eye protocol.

BAS Native is a protocol supported by all controllers, the protocol is used for data exchange between BA System products.
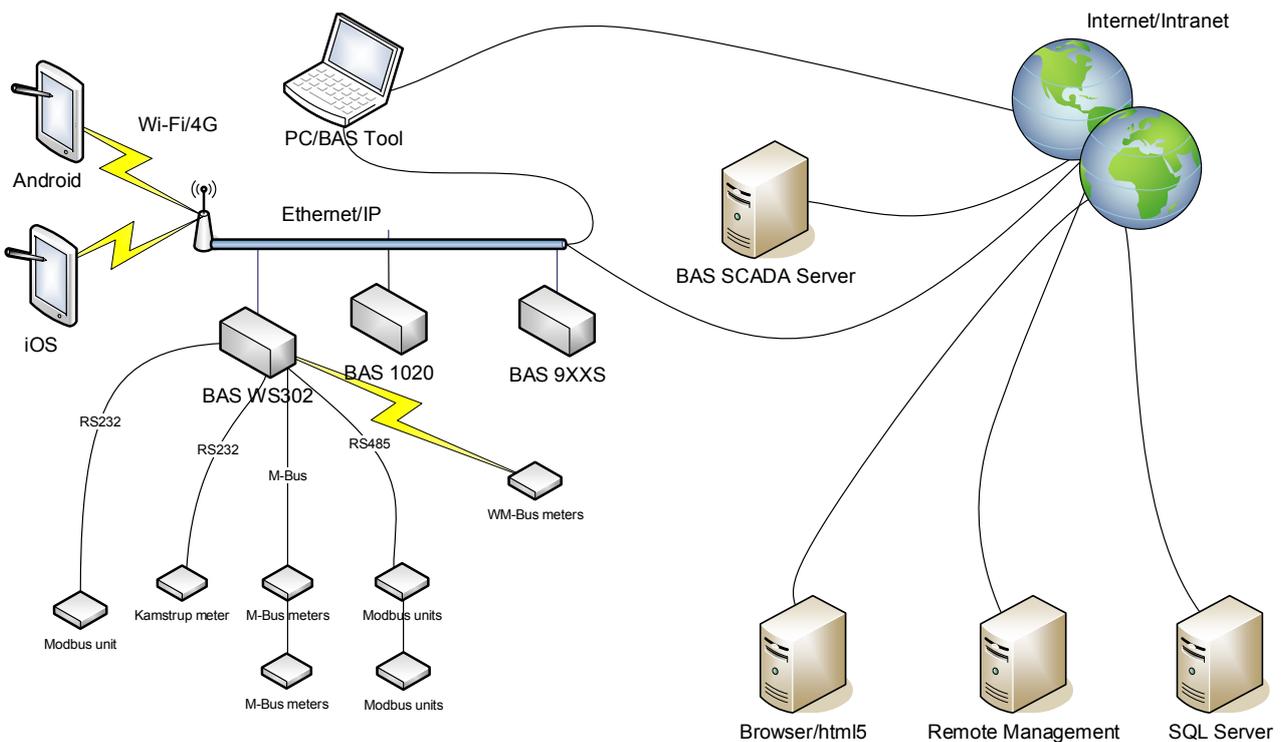
BAS SCADA
Via our SCADA system all data, both calculated and I/O data, can be presented as a symbol, a text or a number. Data can be read and/or written. Communication with the BAS WS302 can be done via TCP/IP

BAS Tool
The BAS Tool program can be used to monitor a BAS WS302. Uses Ethernet and USB

BAS Web

Dimensions

DI   OPT   RS232   RS232_HHS   RS485

INTERNAL MODULE MOUNT

BA Systems ApS (c) 2019
BAS_WS302 R3.00

LAN   USB   BATTERY   RESET   MBUS

24V   STATUS LED