B5

Toxic & Combustible Sensor with BACnet™ Protocol

The B5 Series is a BACnet™ enabled, microprocessor based "smart" gas transmitter. It is paired with either an electrochemical gas sensor for toxic gases, or a catalytic bead sensor for combustible gases. Pre-calibrated sensors can be purchased and installed by the user, thereby reducing calibration costs and minimizing downtime. The user can select from numerous display options, including relay status, time, TWA, STEL, concentration, or nothing at all. The units can be installed as stand-alone, or networked digitally with a BACnet™ enabled controller. The B5 supports BACnet™ MS/TP protocol and can be networked to form a BACnet™ MS/TP network. The B5 can be set to be a Master Node or a Slave Node in the field. Default is Slave Node. All relay parameters can be controlled and programmed through a BACnet™ controller or set individually on the unit.

The B5 series is covered by ACI's Two (2) Year Limited Warranty. The warranty is located in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's web site, www.workaci.com.

GAS

SPECIFICATIONS

Supply Voltage DC	24 VDC nominal, range 18 to 30 VDC, 0.3A DC total maximum
Supply Voltage AC	24 VAC nominal, range 15 to 24 VAC, 0.3A AC Total maximum (AC must not be grounded)
Sensor Type	Electrochemical or Infrared (Toxic) or Catalytic Bead (Combustible) (see ordering grid below)
Sensor Life Span	2 to 3 years typical (toxic gas), >5 yrs in clean environment
Gas Measurement Range	See ordering information
Outputs	BACnet™ MS/TP (Default is Slave), 38400 bps default
Sampling Method	Diffusion or flow through
Accuracy/Repeatability (Combustable)	+/- 2.0% of LEL/+/- 2.0% of LEL
Buzzer Rating	Rated for 80 dB @ 10 cm, 2,700 Hz with 3 programmable tones
Enclosure Rating	IP66 and NEMA 4, 4X, 12 and 13
Indicators	Backlit LCD graphic display | (5) LED's for Relay and RS-485 Status
Operating Temperature Range	-40º to 70ºC (-40º to 158ºF), depends on sensor specification
Operating Humidity Range	5 to 95%, non-condensing
Relay Rating	(3) SPDT Form 1C; rated 1A @ 30 VDC
Maximum Sensor Coverage Area	7,500 ft2 (CH4,C3H8,CO,O2,H2,NH3,NO,NO2): 5,000 ft2 (CL2,CLO2,HCL,HCN,H2S,O3,SO2)
Mounting Height Above Floor	Contact ACI or visit www.workaci.com
Product Dimensions	(H) 5.90" (W) 3.54" (D) 2.55"
Agency Approvals	ETL file #101031697TOR-002

ORDERING

Select one Gas Type (A), and include "Span" when filling out Part Number. Choose one Enclosure (B).

A   Gas Type

- ○ **CH3CO-100L** (Acetone, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **NH3** (Ammonia, Electrochemical, 0-100 PPM) (Span: **100P**)
- ○ **NH3** (Ammonia, Electrochemical, 0-1000 PPM) (Span: **1000P**)
- ○ **ASH3** (Arsine, Electrochemical, 0-1 PPM) (Span: **1P**)
- ○ **C6H6** (Benzene, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **C4H10** (Iso-Butane, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **BUTAN** (Butanol, n-Butane, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **CO2** (Carbon Dioxide, Infrared, 0-5000 PPM) (Span: **5000P**)
- ○ **CO2** (Carbon Dioxide, Infrared, 0-5% VO) (Span: **5V**)
- ○ **CO2** (Carbon Dioxide, Infrared, 0-20% VO) (Span: **20V**)
- ○ **CO2** (Carbon Dioxide, Infrared, 0-100% VO) (Span: **100V**)
- ○ **CO** (Carbon Monoxide, Electrochemical, 0-250 PPM) (Span: **250P**)
- ○ **CO** (Carbon Monoxide, Electrochemical, 0-1000 PPM) (Span: **1000P**)
- ○ **CL2** (Chlorine, Electrochemical, 0-5 PPM) (Span: **5P**)
- ○ **CLO2** (Chlorine Dioxide, Electrochemical, 0-2 PPM) (Span: **2P**)
- ○ **GENL** (Combustible, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **B2H6** (Diborane, Electrochemical, 0-2 PPM) (Span: **2P**)
- ○ **C2H4** (Ethylene, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **ETO** (Ethylene Oxide, Electrochemical, 0-20 PPM) (Span: **20P**)
- ○ **GEH4** (Germane, Electrochemical, 0-2 PPM) (Span: **2P**)

- ○ **H2** (Hydrogen, Electrochemical, 0-1000 PPM) (Span: **1000P**)
- ○ **H2** (Hydrogen, Electrochemical, 0-2000 PPM) (Span: **2000P**)
- ○ **H2** (Hydrogen, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **HBR** (Hydrogen Bromide, Electrochemical, 0-30 PPM) (Span: **30P**)
- ○ **HCL** (Hydrogen Chloride, Electrochemical, 0-30 PPM) (Span: **30P**)
- ○ **HCN** (Hydrogen Cyanide, Electrochemical, 0-50 PPM) (Span: **50P**)
- ○ **H2S** (Hydrogen Sulphide, Electrochemical, 0-25 PPM) (Span: **25P**)
- ○ **H2S** (Hydrogen Sulphide, Electrochemical, 0-100 PPM) (Span: **100P**)
- ○ **CH4** (Methane, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **CH3OH** (Methanol, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **NO** (Nitric Oxide, Electrochemical, 0-100 PPM) (Span: **100P**)
- ○ **NO2** (Nitrogen Dioxide, Electrochemical, 0-10 PPM) (Span: **10P**)
- ○ **O2** (Oxygen, Electrochemical, 0-25% VO) (Span: **25V**)
- ○ **O3** (Ozone, Electrochemical, 0-1 PPM) (Span: **1P**)
- ○ **C5H12** (Iso-Pentane, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **PH3** (Phosphine, Electrochemical, 0-1 PPM) (Span: **1P**)
- ○ **PH3** (Phosphine, Electrochemical, 0-5 PPM) (Span: **5P**)
- ○ **C3H8** (Propane, Catalytic Bead, 0-100% LEL) (Span: **100L**)
- ○ **SIH4** (Silane, Electrochemical, 0-50 PPM) (Span: **50P**)
- ○ **SO2** (Sulphur Dioxide, Electrochemical, 0-6 PPM) (Span: **6P**)

B   Enclosure

- ○ **O** (Standard Enclosure)
- ○ **P** (Enclosure, Pump-Thru Cap Kit)
- ○ **S** (Enclosure, Splash Guard Kit)
- ○ **D** (Enclosure, Duct Mount Kit)

BUILD PART NUMBER

After completing (A) & (B) from the above table, fill in the Part Number Table below. The "Sensor Series" & "Revision" (X) are factory defaults. An example part number is offered.

B5	—	—	—	—	X
SENSOR SERIES	A	SPAN	B		FACTORY PROVIDED

EXAMPLE: B5 - C2H4- 100L - O - X

ETL
LISTED
Intertek