



## Configuration Package for Field Programming SUPERPROX® Sensors

- **Model AC441A configurator serially downloads and uploads all sensor program configurations**
- **Windows-based configuration program with functionality graphics**
- **Allows user to configure SUPERPROX sensors in the field**
- **Field programmable models SC300/600/606/900/906 series**
- **Increase sensing capability & flexibility over SM series equivalent**
- **Remote limit setup in SC & SM900/906 series sensors**
- **Limits push-button lockout option in SC900/906 series sensors**
- **CE certified**

### **SUPERPROX+™ allows in-the-field programming of SUPERPROX sensors by the user**

SUPERPROX+ software combined with the Model AC441A configurator interface module allows the user to now load either standard or custom sensing configurations into the SUPERPROX® 300, 600, 606, 900, and 906 series sensors designated with an 'SC' prefix model number.

The 'SC' prefix designator has been assigned in order to differentiate these field programmable sensors from the factory configured sensors designated with an 'SM' prefix model number. The SUPERPROX+ software will not operate with 'SM' series sensors to prevent possible alteration of the factory loaded configuration defined by the specific sensor model number.

All the unique sensing capabilities and functions available in "SM" sensor models of the SUPERPROX® 300, 600, 606, 900, and 906 series are also available, plus additional capability and functionality in the equivalent field programmable "SC" sensor models. The onboard processor used in the "SC" sensor models has an EEPROM. This gives the user the option to write over an existing sensor program configuration as many times as necessary

until it is exactly correct for the intended application.

SC sensor models offer the option to lockout the limits setup push-button. Through the SUPERPROX+ software, the limits setup push-button in the SC900 and SC906 series sensors can be inhibited for protecting the limits from being changed.

### **More than just a program configurator**

The Model AC441A configurator interface module serves as both a program downloading interface as well as an uploading interface for all "SC" sensor models. In addition, the Model AC441A can be used as a stand-alone limits setup calibrator for setting the sensing or span limits at specific distances from the sensor in SC900/ 906 and SM900/902/906 series sensors through the aid of its four digit LED display. With either model SC900/ 906 and SM900/ 902/906 series sensor connected to the Model AC441A and powered, whatever settings have been set through the limits push-button can be read from the Model AC441A display. The actual sensing distance between a sensor and the object being sensed can also be read in real time from the Model AC441A display to verify sensor operation.

## Operation

The SUPERPROX+ software with the Model AC441A con-figurator interface module enables the SC300, 600, 606, 900, and 906 series sensors to be configured in the field with a wide range of unique sensing capability. Besides this feature, the SUPERPROX+ software visually simulates on the computer screen the LED sensing status and output functionality with a simulated target. With this visual graphic aid, the various sensing and operating parameters representing a configuration can be checked prior to loading into the sensor for verifying the functionality is correct for the application.

Another feature of the SUPERPROX+ software allows the SC300, 600, 606, 900, and 906 series sensors to be configured with either an equivalent standard series 'SM' model or a user custom program configuration. A custom program may be changed any number of times and stored to the EEPROM/memory used in these sensors. An 'SM' series sensor configuration can be copied, modified, and saved in a custom file directory, but cannot be changed in or deleted from the standard file directory.

A user information drop-down message will appear at each program parameter block in every configuration to give explanation or instruction of the individual functionality. By placing and pausing the cursor over any one of the parameter blocks, a drop-down message automatically appears to explain that particular functionality in the configuration.

All dimensional units for displaying the various distances associated with a configuration like sensing limits, range, deadband, etc. are selectable in either English or metric measure. This is simply selected through the "setup" drop-down menu.

## Model Reference Guide - SC Configurable Series

Use the guide below to ensure the correct model number is specified for the application. Please note that not all sensor model combinations are available.

### EXAMPLE MODEL:

SC6 0 6 A - B C 0 FP

#### SUPERPROX+ Product Series

- SC3...Miniature configurable models
- SC6...18 mm and flat-profile configurable models
- SC9...30 mm threaded barrel configurable models

#### Power/Connection Type

- 0...12 to 24 VDC/cable style
- 5...12 to 24 VDC/connector style

#### Sensing Function

- 0...Discrete output - proximity
- 6...Analog output (SC6 and SC9 only)

#### Design Level

- A...Applies to all models

#### Maximum Far Limit

- SC3 Series
  - 4...102 mm (4")
- SC6 Series
  - B...254 mm (10")
- SC9 Series
  - 1...51 mm to 1 m (2" to 39")
  - 4...120 mm to 2 m (4.7" to 79")
  - 7...120 mm to 1 m (4.7" to 39") - Required for ST option
  - 8...203 mm to 8 m (8" to 26')

#### Output Signal

- 0...Discrete models
- V...Analog models - voltage output
- C...Analog models - current (mA) output (except SC606 barrel style)

#### Functionality

- 0...Standard

#### Options

- ...No designator indicates no options
- ST...Stainless transducer (must also specify stainless housing/120 mm to 1 m range models only)
- FS...Flourosilicone transducer face

#### Housing Types

- ...No designator indicates standard ULTEM®\* plastic barrel housing
- FP...ULTEM® flat-profile housing
- S...SS303 stainless steel - 18 mm or 30 mm barrel housing

\* ULTEM® is a registered trademark of the General Electric Company.

## Model Reference Guide - AC441A Configurator Series

Use the guide below to ensure the correct model number is specified for the application. Please note that not all sensor model combinations are available.

- AC441A-1...US Version - with 110VAC power cord and inline supply
- AC441A-2...UK Version - with 220VAC power cord and inline supply
- AC441A-3...European Version - with 220VAC power cord and inline supply
- AC441A-4...Australia/New Zealand Version - with 220VAC power cord and inline supply
- AC441A-US...Complete configuration package including: AC441A-1 configurator, 1 AC130-3 cable, AC137 adapter, and AC172 RS232 cable.

NOTE: All AC441A series models are supplied with SUPERPROX+™ software CD, power supply for appropriate country, and mounting bracket.

## Requirements

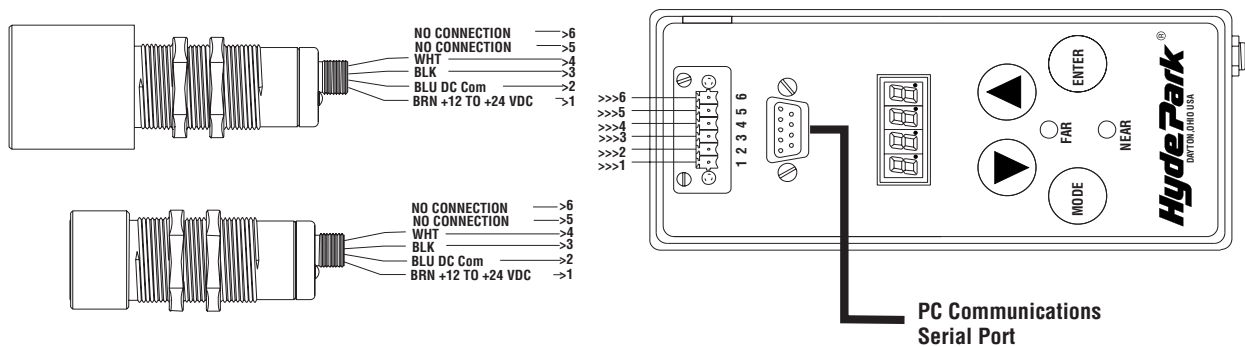
There are three basic peripheral items required to acquire full field configuring capability. In addition to the SUPERPROX+ software and the Model AC441A configurator interface module, the only other item is a straight-through DB9 serial port cable. This item is available from Hyde Park as a Model AC172 accessory cable option.

The SUPERPROX+ software is compatible for operation on all Windows 95, 98, ME, 2000, or XP operating systems. Only SUPERPROX® 300, 600, 606, 900, and 906 series sensors having an 'SC' prefix in the model number may be configured in the field with this software.

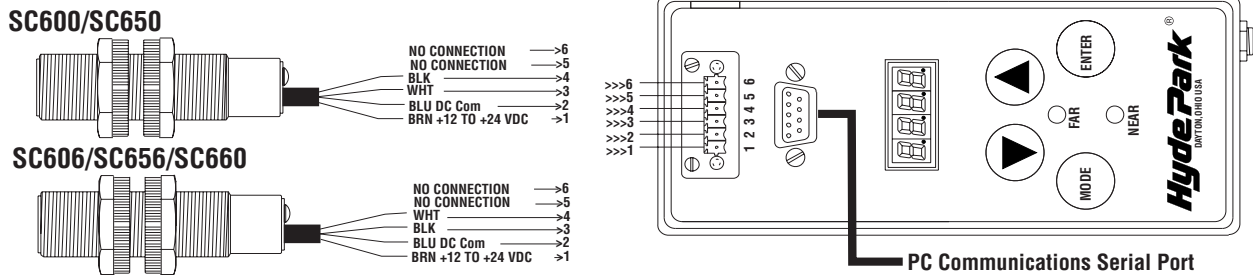
## Electrical Wiring

The sensor wires must be run in conduit free of any AC power or control wires.

### SC900/SC906 Wiring to AC441A

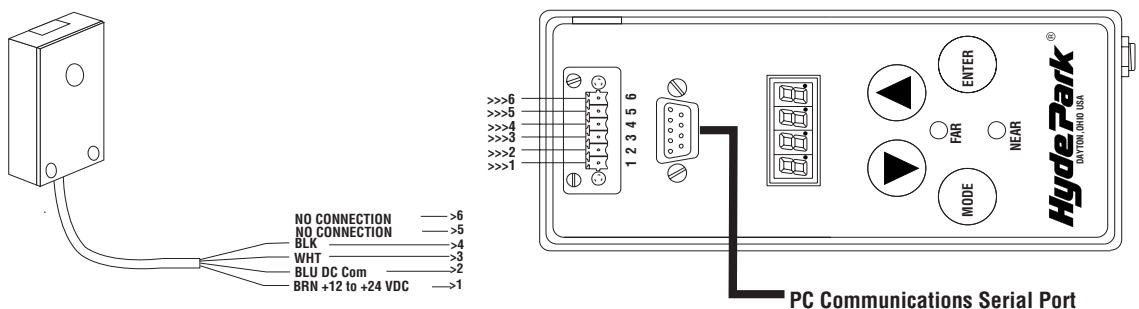


### SC600/SC650/SC660/SC606 Wiring to AC441A - Note the black and white wires differences.



The SC660 has reversed outputs; a white-wire NPN and black-wire PNP output

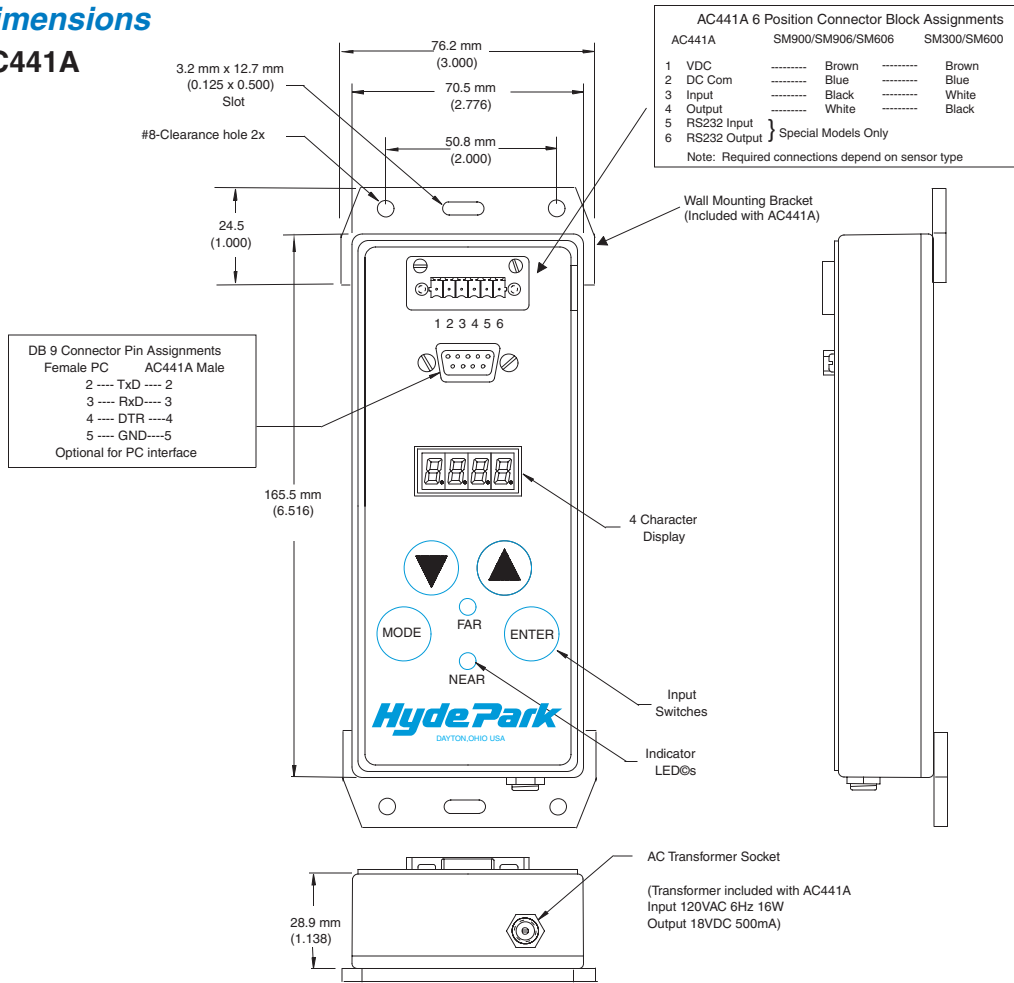
### SC300/SC350/SC380 Wiring to AC441A



The SC660/SC360/SC390 has reversed outputs; a white-wire NPN and black-wire PNP output

## Dimensions

### AC441A



## General Specifications

### Model AC441A

#### Power Requirements

18 to 24 volts DC, 175 mA max. (includes power supply to sensor)

#### Power Connector

5.5 x 2.1 mm jack center negative

#### Power Supply

In-line, universal input: 85VAC to 265VAC, 50/60Hz  
Output: 24VDC, 0.63A  
Supplied with country-specific AC line cord/plug and DC output cord. Both cords are 6' in length.

#### Other Connections

6-pin quick disconnect for sensor DB9 female connector for PC interface.

#### Sensor Mounting Distance

47 m (150') maximum

#### Display

4-digit 7 segment 0.4" tall red LED with decimal point

#### Dimensions

6.37" (152 mm) x 2.76" (70 mm) x 1.15" (29 mm)

#### Operating Temperature

0° to 50°C (32° to 122°F) @ 10-90% non-condensing humidity. Not suitable for permanent outdoor use.

#### Ratings and Certifications

CE mark compliant  
Declaration of Conformity available upon request

## Accessories

### Model AC137

### Model AC172

See page 7-1 for accessory photos.