

Danfoss ACQ101A Remote Setpoint Modules



# Danfoss ACQ101A Remote Setpoint Modules User Guide

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**Danfoss ACQ101A Remote Setpoint Modules**



## Product Information

### Specifications

- **Model:** ACQ101A, ACQ101B
- **Weight:** Hand-held model: 1 1/2 lbs. (680 grams), Panel-mount model: 7 ounces (198 grams)
- **Environmental:** Shock-resistant and vibration-resistant

## Product Usage Instructions

### Mounting

For hand-held models, use the spring-return hanger to suspend the Remote Setpoint in a convenient location. No additional mounting is required. Panel-mount versions require a cutout as per the Mounting Dimensions diagram. Provide at least one inch of clearance behind the panel for the ACQ101. Follow the instructions provided in the manual for mounting.

### Wiring

Hand-held models come with an integral coiled cord with an MS Connector for direct connection to compatible controllers. For panel-mount ACQ101B, refer to the Wiring Diagram provided in the manual. Use Part Number KW01001 cable assembly for wiring connections.

## Frequently Asked Questions

### **Q: Can I adjust the slope setpoint on the ACQ101A and B Remote Setpoint Modules?**

A: Yes, when used with compatible controllers, the slope setpoint can be adjusted anywhere on the infinite

resolution scale within 10% of zero slope.

### **Q: What accessories are available for the ACQ101A and B Remote Setpoint Modules?**

A: Part Number KW01001 coiled cord assembly is available to extend connections between the panel-mount ACQ101B and compatible controllers with MS Connectors or Proportional Level Controllers.

## **DESCRIPTION**

The ACQ101A and B Remote Setpoint Modules adjust slope to a setpoint other than vertical. When used with the Danfoss W894A Proportional Level Controller or R7232 or ACE100A Proportional Indicating Controllers, the slope setpoint can be set anywhere on the infinite resolution scale within 10% of zero slope. The ACQ101A is hand-held and has a coiled cord and MS Connector for hookup. The ACQ101B is mounted in the cab panel and has a terminal strip for electrical connections

## **FEATURES**

- The ACQ101A hand-held model has a spring-loaded hanger that easily clips to railings, pipes or bars, affording extensive freedom about the machine for the operator.
- The ACQ101 can be rotated in any direction without affecting operation.
- Shock and vibration-resistant, both models also resist corrosion and moisture.
- The ACQ101A and B are easy to install. The MS connector on the hand-held model plugs in and screws tight. The panel mount model mounts on a flat surface 3 by 6 inches or larger. Four connections to the terminal strip complete the hookup.

## **ORDERING INFORMATION**

### **ACCESSORIES**

Part Number KW01001 coiled cord assembly extends to 10 feet and provides all necessary wiring connections between the panel-mount ACQ101B and the R7232 Proportional Indicating Controller with MS Connectors or the W894A Proportional Level Controller. It comes completely assembled with MS Connector on one end and spade lugs on the other

### **SPECIFY**

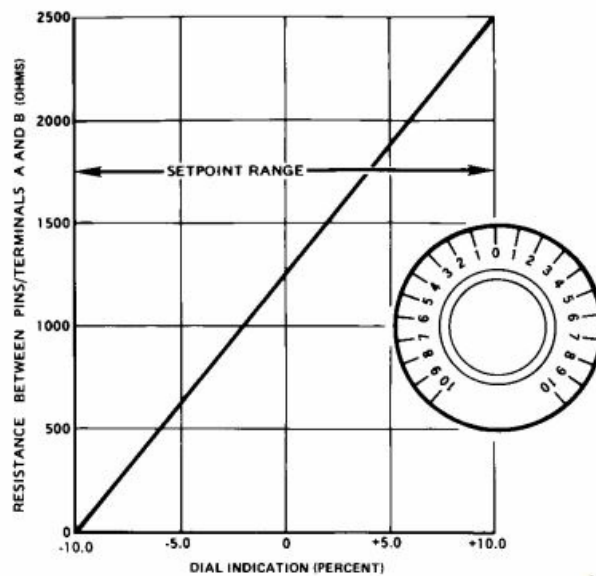
1. Model Number (ACQ101)
2. Hand-held (A) or Panel-mount (B) version
3. Cable, if needed

## **TECHNICAL DATA**

- RESISTANCE
  - $2500 \pm 15$  ohms between pins A and C of the connector or terminal strip. Resistance between pins A and B increases when the dial is turned clockwise. See the Resistance Vs. Dial Position diagram.
- SETPOINT RANGE
  - Adjustable to  $\pm 10.0\%$  slope.
- OPERATING TEMPERATURE

- 0 to 140°F (-18 to +60°C).
- STORAGE TEMPERATURE
  - 40 to +170°F (-40 to +77°C).
- WEIGHT
  - Hand-held model: 1 1/2 lbs. (680 grams).
  - Panel-mount model: 7 ounces (198 grams).
- DIMENSIONS
  - See the Dimension, Hand-held Model, and Dimensions,
  - Panel-mount Model diagrams.

## RESISTANCE VS. DIAL POSITION

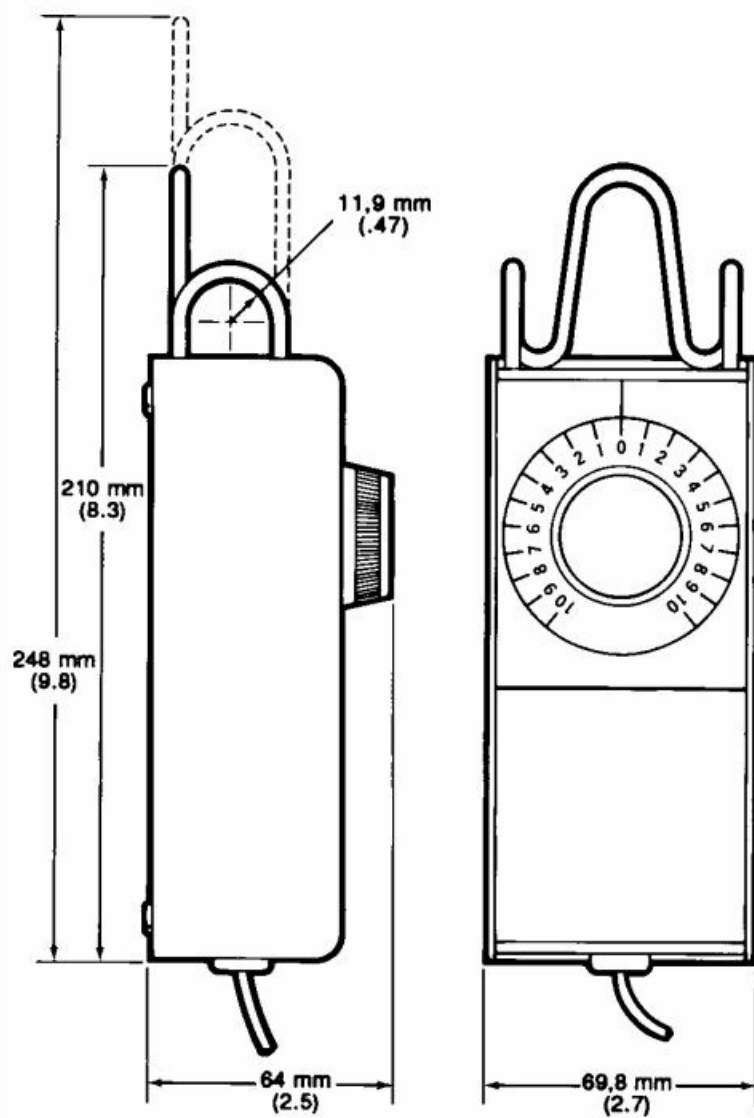


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**Resistance Vs. Dial Position of the ACQ101.**

## DIMENSIONS

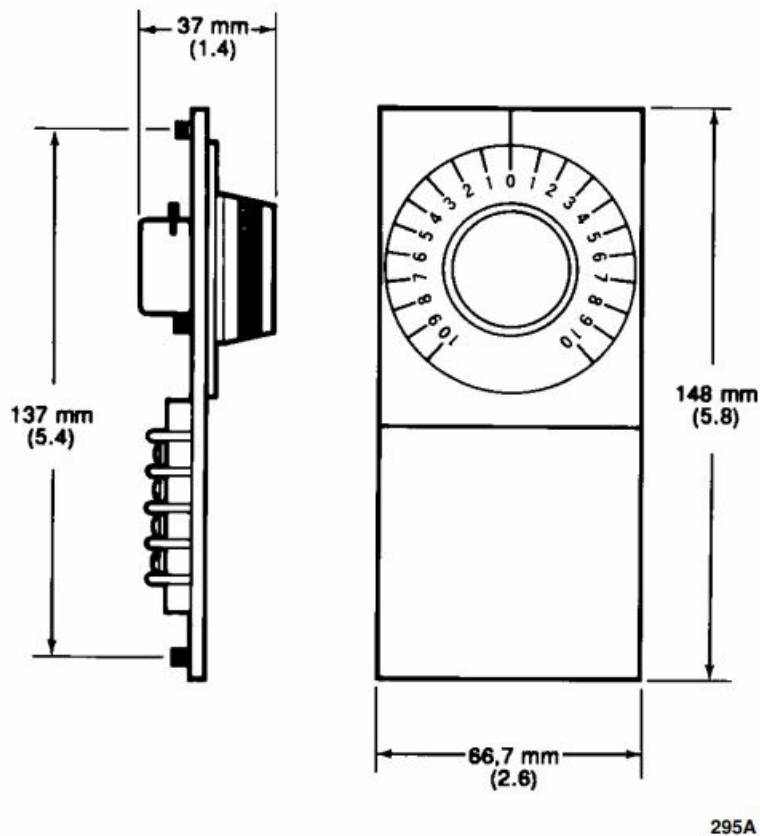
### DIMENSIONS, HAND-HELD MODEL



294A

Dimensions of the Hand-Held ACQ101A in Millimeters (Inches).

#### DIMENSIONS, PANEL-MOUNT MODEL



## ENVIRONMENTAL

### SHOCK

Withstands a shock test designed for mobile equipment devices that consists of three shocks of 50 g's and 11 milliseconds duration in both directions of the three major axes for a total of 18 shocks.

### VIBRATION

Withstands a vibration test designed for mobile equipment devices that includes two parts:

1. Cycling from 5 to 2000 Hz over a range of  $\pm 1.5$  g's to  $\pm 3.0$  g's for a period of one hour (if there are four resonant points), for two hours (if there are two or three resonant points), and for three hours (if there is one or no resonant point). The cycling test is performed on each of the three major axes.
2. Resonance dwell for one million cycles over a range of  $\pm 1.5$  g's to  $\pm 3.0$  g's for each of the four most severe resonant points on each of the three major axes

## MOUNTING

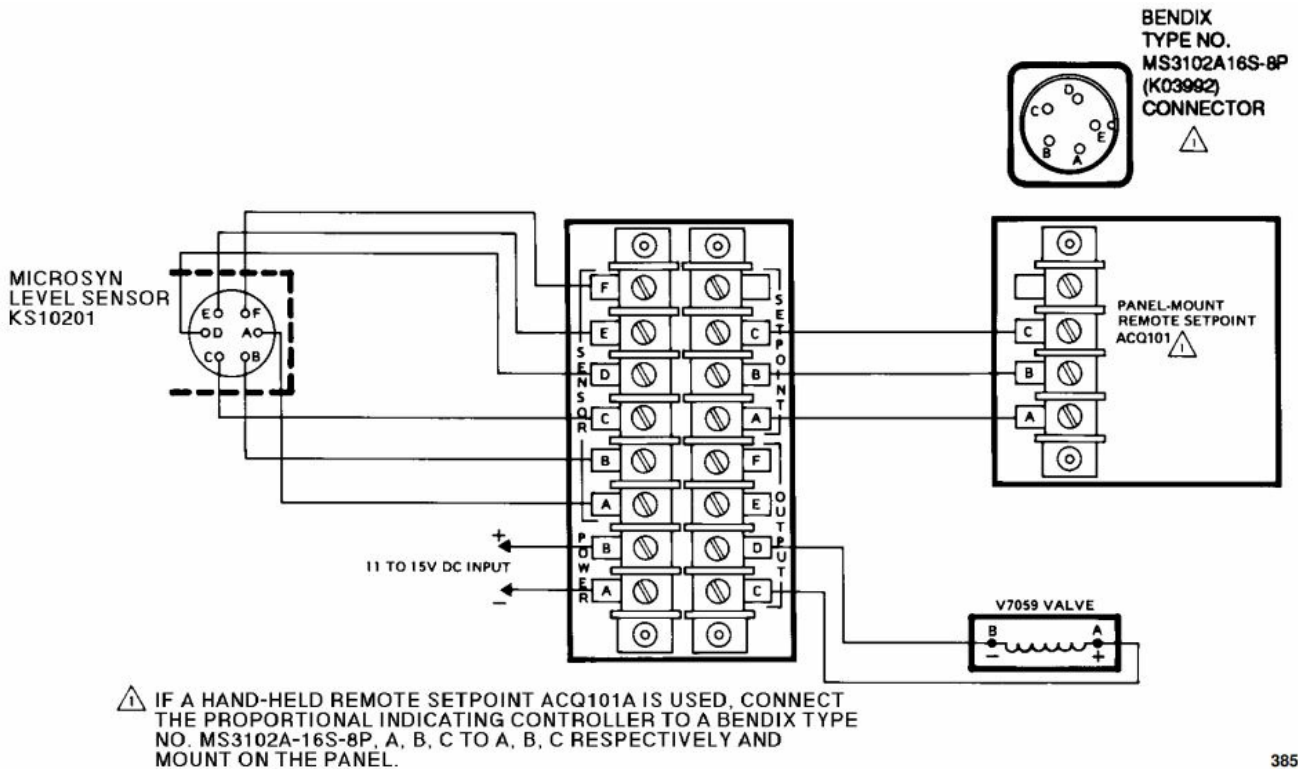
Hand-held models have a spring-return hanger designed for suspending the Remote Setpoint in any convenient location. No mounting is required. Panel-mount versions require a cutout of the size shown in the Mounting Dimensions diagram. At least one inch of clearance should be provided behind the panel for the ACQ101. Drill 3/16 inch clearance holes in the location shown in the Mounting Dimensions diagram. Remove the nuts from the lugs at the back of the front plate. Insert the lugs through the clearance holes and replace the nuts from the back of the panel.

## MOUNTING DIMENSIONS

- 
- Technical drawing of a rectangular plate with dimensions and annotations:
- Top horizontal dimension: 57,2 mm (2.25)
  - Left vertical dimension: 137 mm (5.38)
  - Inner vertical dimension: 127 mm (5)
  - Right vertical dimension: 4,76 mm (0.19)
  - Bottom horizontal dimension: 3,2 mm (0.125) and 50,8 mm (2)
  - Bottom right corner dimension: 4,76 mm (0.19) 4-PL
  - Annotations: Four circles with a '+' sign are located at the corners of the inner rectangle. A small arrow points to the bottom right corner dimension.

4. Check the operation of the servo valve, proportional indicating controller and sensor

## WIRING DIAGRAM



385A

**Typical System Wiring to an R7232 With Terminal Strips.**

## CUSTOMER SERVICE

### NORTH AMERICA

### ORDER FROM

- Danfoss (US) Company
- Customer Service Department
- 3500 Annapolis Lane North
- Minneapolis, Minnesota 55447
- Phone: (763) 509-2084
- Fax: (7632) 559-0108

### DEVICE REPAIR

- For devices in need of repair or evaluation, include a
- description of the problem and what work you believe
- needs to be done, along with your name, address and
- telephone number.

### RETURN TO

- Danfoss (US) Company




- Return Goods Department
- 3500 Annapolis Lane North
- Minneapolis, Minnesota 55447

## EUROPE

- ORDER FROM
  - Danfoss (Neumünster) GmbH & Co.
  - Order Entry Department
  - Krokamp 35
  - Postfach 2460
  - D-24531 Neumünster
  - Germany
  - Phone: 49-4321-8710
  - Fax: 49-4321-871-184
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## Documents / Resources

	<p><a href="#">Danfoss ACQ101A Remote Setpoint Modules</a> [pdf] User Guide ACQ101A Remote Setpoint Modules, ACQ101A, Remote Setpoint Modules, Setpoint Modules, Modules</p>
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## References

- [User Manual](#)

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