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INSTALLATION/OPERATING INSTRUCTIONS

RCAL-26 REMOTE CALIBRATION UNIT FOR USE WITH DP-20 WEB GUIDE CONTROLLER

RCAL-26 REMOTE CALIBRATION UNIT

Introduction

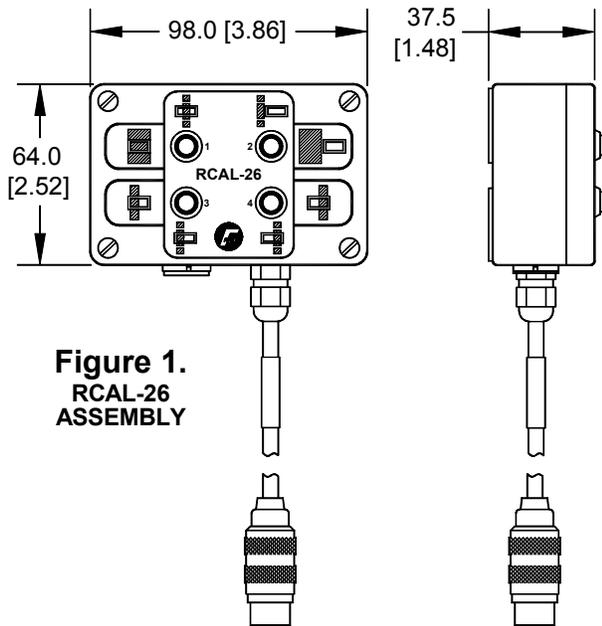


Figure 1.
RCAL-26
ASSEMBLY

General Introduction

The RCAL-26 (Remote Calibration) unit is one of the DP-20 accessories. It is connected directly to the Fife DP-20 Web Guide Controller. A Fife line sensor is then connected to the RCAL-26. The line sensor can be calibrated more easily by using the RCAL-26. The RCAL-26 is not suitable for calibrating Fife edge sensors.

Example Of Application

The RCAL-26 is useful when:

- The DP-20 Controller is inaccessible.
- Operator control at the DP-20 Controller is impossible.
- The contrast of the web material changes more frequently.

In these cases, it is useful to calibrate the sensor using the RCAL-26. This unit can be mounted close to the sensor for this purpose.

Installation

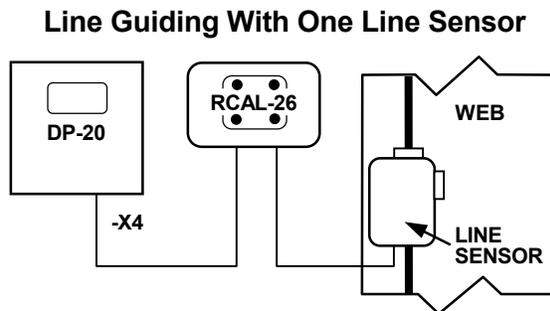


Figure 2.
CABLE CONNECTION DIAGRAM

Installation Instructions

One RCAL-26 unit can be connected to a DP-20, with one line sensor. The RCAL-26 and line sensor must be connected to the X4 connector on the DP-20.

Maximum Combined Cable Length

Maximum combined cable length between the DP-20 and the line sensor is 25 meters (82 feet).

Cable Connection

See Figure 2 diagram for cable connection.



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Mounting

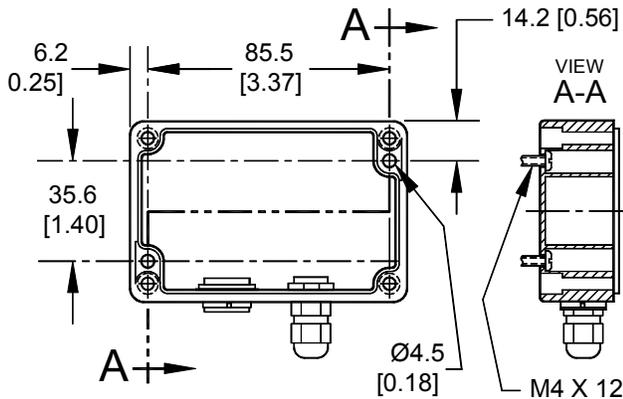


Figure 3.
RCAL-26 HOUSING
MOUNTING DIMENSIONS

Mounting Options

- Magnetic Strips
- Screw Attachment

Magnetic Strips

The RCAL-26 contains magnetic strips on the rear of the unit for mounting on metallic surfaces. As a result of this method of mounting, the RCAL-26 can be easily dismantled and moved, if desired.

Screw Attachment

See Figure 3 for mounting hole drilling dimensions. Mount with two (2) M4x12mm socket-head cap screws. (Mounting screws NOT supplied.)

-WARNING-

The RCAL-26 and its associated cables may present new sources of danger. Never feed the unit or its associated cables over, under, or through moving parts or dangerous areas. Equipment damage or personal injury may occur.

Operation

Prerequisite For Calibration

- The web must be at standstill.
- The sensor light spot must be clearly focused on the web.
- There must be no plane change of the web in the area of the sensor light spot.
- The DP-20 must be in Manual or Servo-Center mode.

Possible Applications



To detect the edge of a printed line or the edge of a web material.



To detect a line center.

NOTE:

If the RCAL process is started, but not completed, 3 minutes after the last key was pressed, the calibration process will be automatically aborted.

The process may be aborted by pressing the **MANUAL** key on the DP-20. If the Operation Mode is changed during the calibration process, the process is aborted.



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Operation (Calibration Continued)



Calibration to detect the edge of a printed line or the edge of a web material.

1. Verify Manual mode and proper Sensor mode.



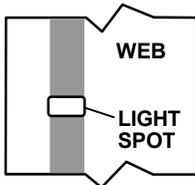
a. On the DP-20, press the MANUAL key. Verify MANUAL is displayed on the LCD Panel.



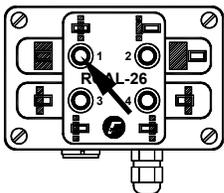
b. Verify 3E is displayed on the first line of the LCD Panel and the Edge of Line

symbol is displayed on line 3. If necessary, press the SENSOR key until these are displayed.

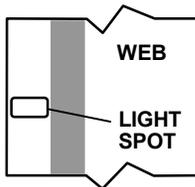
2. Calibrate the sensor.



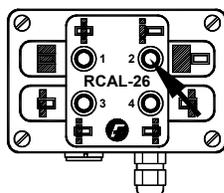
a. Position the light spot fully on the line (web material).



b. Press Key 1 on the RCAL-26. The LCD Panel on the DP-20 will display and flash "RCAL ACTIVE" on line 4.



c. Maintain the position of the light spot for at least 3 seconds. Then position the light spot fully on the background.



d. Press Key 2 on the RCAL-26. The LCD Panel on the DP-20 will stop displaying "RCAL ACTIVE" on line 4.

The sensor is now calibrated to the contrast of the web material, unless "RCAL FAILED" is flashing on the DP-20 LCD Panel. This indicates insufficient contrast was detected and the process must be repeated. Pressing the DP-20 Manual key will cancel the process, if desired.



Calibration to detect a line center.

1. Verify Manual mode and proper Sensor mode.



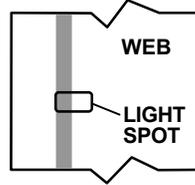
a. On the DP-20, press the MANUAL key. Verify MANUAL is displayed on the LCD Panel.



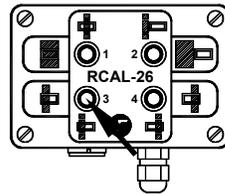
b. Verify 3D is displayed on the first line of the LCD Panel and the Center of

Line symbol is displayed on line 3. If necessary, press the SENSOR key until these are displayed.

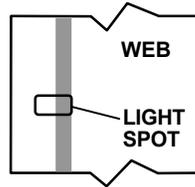
2. Calibrate the sensor.



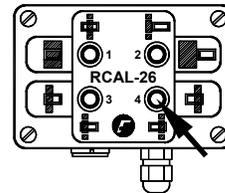
a. Position the entire line to the left of center in the light spot.



b. Press Key 3 on the RCAL-26. The LCD Panel on the DP-20 will display and flash "RCAL ACTIVE" on line 4.



c. Maintain the position of the light spot for at least 3 seconds. Then position the entire line to the right of center in the light spot.



d. Press Key 4 on the RCAL-26. The LCD Panel on the DP-20 will stop displaying "RCAL ACTIVE" on line 4.

The sensor is now calibrated to the contrast of the web material, unless "RCAL FAILED" is flashing on the DP-20 LCD Panel. This indicates insufficient contrast was detected and the process must be repeated. Pressing the DP-20 Manual key will cancel the process, if desired.



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Troubleshooting

FAULT	CAUSE	REMEDY
Sensor calibration failed.	<p>Correct distance between sensor and web material was not maintained.</p> <p>Contrast of web material not detected ("RCAL ACTIVE" is still flashing on the DP-20 LCD Panel).</p> <p>Contrast is too low. Sensor does not detect contrast difference. ("RCAL ACTIVE" is still flashing on the DP-20 LCD Panel).</p>	<p>Correct the distance between the sensor lense and the web material (10-11 mm (0.40 – 0.43 inch)).</p> <p>Repeat sensor calibration.</p> <p>Change material or select a sensor designed for this material.</p>