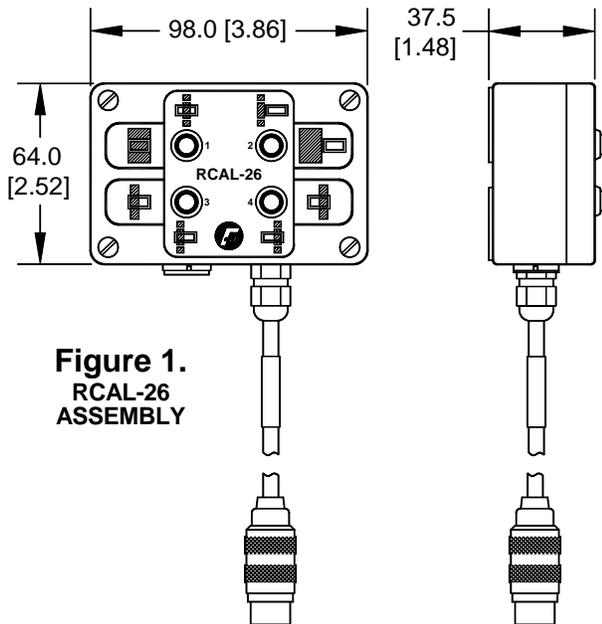


**RCAL-26  
REMOTE CALIBRATION UNIT**

**Introduction**



**Figure 1.**  
**RCAL-26  
ASSEMBLY**

**General Introduction**

The RCAL-26 (Remote Calibration) unit is one of the D-MAX accessories. It is connected directly to the Fife D-MAX 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.

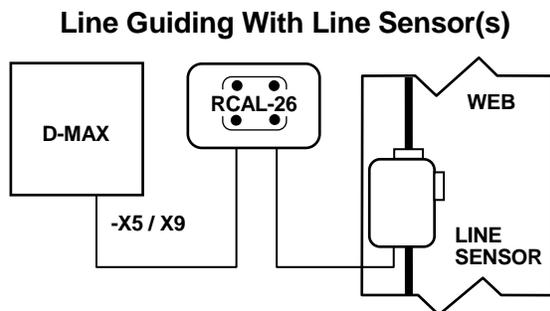
**Example Of Application**

The RCAL-26 is useful when:

- The D-MAX Operator Interface is inaccessible.
- Operator control at the D-MAX 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**

A maximum of two RCAL-26 units can be connected to a D-MAX Controller, with one line sensor connected to each RCAL-26. Connect the RCAL-26(s) and line sensor(s) to the X5 and/or X9 connector(s) on the D-MAX.

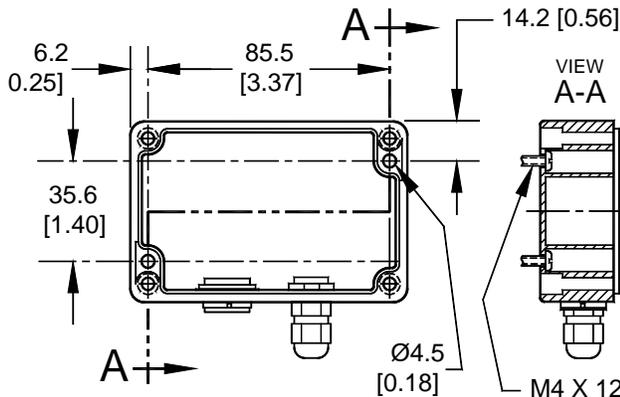
**Maximum Combined Cable Length**

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

**Cable Connection**

See Figure 2 diagram for typical cable connection.

## 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

## 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.
- All of the D-MAX Controller drives that are configured to use the sensor to be calibrated must be in Manual mode.

### Possible Applications



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



To detect a line center.

### NOTE:

To view the bargraph on the Operator Interface during the calibration, select a drive that is configured to use the sensor to be calibrated.

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 ESC key on the D-MAX Operator Interface.

## Operation (Calibration Continued)

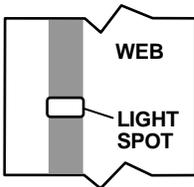


Calibration to detect the edge of a printed line or the edge of a web material.

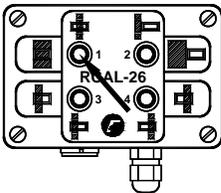
### 1. Verify Manual mode & proper Job selection.

- a. On the D-MAX Operator Interface, press the MANUAL (F3) key. Verify MANUAL is displayed on the LCD Panel.
- b. Verify the "Edge of Line" icon with the correct port designation is displayed on the LCD Panel next to the F4 key. If necessary, press the F4 key to select the proper Job.

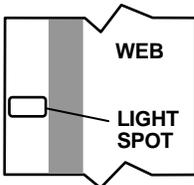
### 2. Calibrate the sensor.



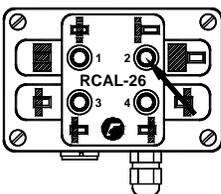
- a. Position the light spot fully on the line (web material).



- b. Press Key 1 on the RCAL-26. The "R CAL" icon will be displayed in the area just above the center line of the D-MAX LCD Panel.



- 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 D-MAX will stop displaying the "R CAL" icon.

The sensor is now calibrated to the contrast of the web material, unless the "R CAL" icon is still displayed on the D-MAX LCD Panel. This indicates insufficient contrast was detected and the process must be repeated. Pressing the ESC key on the D-MAX Operator Interface will cancel the process, if desired.

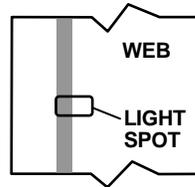


Calibration to detect a line center.

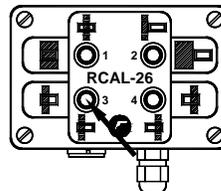
### 1. Verify Manual mode & proper Job selection.

- a. On the D-MAX Operator Interface, press the MANUAL (F3) key. Verify MANUAL is displayed on the LCD Panel.
- b. Verify the "Center of Line" icon with the correct port designation is displayed on the LCD Panel next to the F4 key. If necessary, press the F4 key to select the proper Job.

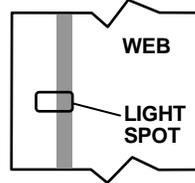
### 2. Calibrate the sensor.



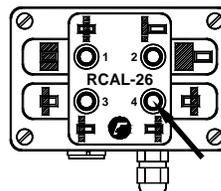
- a. Position the entire line to the left of center in the light spot.



- b. Press Key 3 on the RCAL-26. The "R CAL" icon will be displayed in the area just above the center line of the D-MAX LCD Panel.



- 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 D-MAX will stop displaying the "R CAL" icon.

The sensor is now calibrated to the contrast of the web material, unless the "R CAL" icon is still displayed on the D-MAX LCD Panel. This indicates insufficient contrast was detected and the process must be repeated. Pressing the ESC key on the D-MAX Operator Interface will cancel the process, if desired.



**RCAL-26 REMOTE CALIBRATION UNIT  
FOR USE WITH D-MAX WEB GUIDE CONTROLLER**

**INSTALLATION INSTRUCTIONS**

**Troubleshooting**

FAULT	CAUSE	REMEDY
<p>Sensor calibration failed.</p>	<p>Correct distance between sensor and web material was not maintained.</p> <p>Contrast of web material not detected. (The "R CAL" icon is still displayed on the D-MAX LCD Panel).</p> <p>Contrast is too low. Sensor does not detect contrast difference. (The "R CAL" icon is still displayed on the D-MAX LCD Panel).</p> <p>Sequence of sensor calibration not maintained or not completed.</p>	<p>Correct the distance between the sensor lense and the web material (10-11 mm (0.43 inch)).</p> <p>Repeat sensor calibration.</p> <p>Change material or select a sensor designed for this material.</p> <p>If using more than one RCAL-26 unit, complete the calibration with one unit before beginning calibration with the next one.</p>



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**FIFE CORPORATION**

222 W. Memorial Road, Oklahoma City, OK 73114-2317, USA / Post Office Box 26508, Oklahoma City, OK 73126-0508, USA  
Phone: 405.755.1600 / 800.639.3433 / Fax: 405.755.8425 / E-mail: fife@fife.com / Web: www.fife.com