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Data sheet
**UPRG01D01_05**
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# UPRG01 programming interface

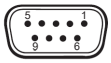

**The UPRG01 is a programming interface for use with compatible encoders. The programming software can be downloaded from www.rls.si/uprg. Extract the relevant .exe file and run. You can then connect the UPRG01 interface to the encoder.**

## Technical specifications

| | |
|---|---|
| **Dimensions** | 60 x 33 x 16 mm |
| **Power supply** | 5 V |
| **Power consumption** | 100 mA |
| **USB connector** | USB 2.0 and USB 1.1 Full Speed compatible; USB 5 pin mini-B connector |
| **Drivers**<br>Virtual Com Port (VCP) drivers available for: | Win 98, 98 SE, 2000/ME, XP, Vista<br>MAC OS-8, OSC-9, OS X<br>Linux<br>For other operating systems, download drivers from here. |
| **Cable** | Standard A to mini-B USB cable |
| **Operating temperature** | 0 °C to +45 °C |
| **Environmental sealing** | IP20 - indoor use only |
| **EMC compliance** | BS EN 61326 |

### Connections

| Pin | Signal |
|---|---|
| 1 | 0 V |
| 2 | - |
| 3 | - |
| 4 | A+ (SDA) |
| 5 | 5 V |
| 6 | - |
| 7 | - |
| 8 | A- (SCL) |
| 9 | - |



9 pin D type female

## For use with LM10, LM13 and LM15 encoders

For the LM10, LM13 and LM15 encoders the programming software allows you to program the following parameters:

- Resolution
- Minimum edge separation
- Direction

## Installing the programming software

The programming software can be downloaded from www.rls.si/uprg. Unzip the file, run ‘setup_LM10_configurator.exe’ for LM10, ‘setup_LM13_configurator.exe’ for LM13 or ‘setup_LM15_configurator.exe’ for LM15 and install the software on your computer.

## How to program

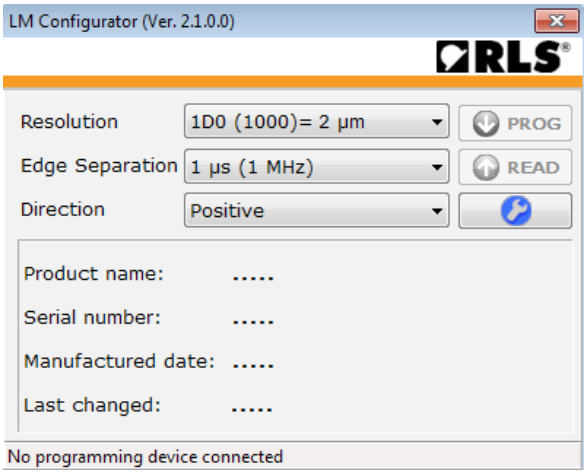
The LM10, LM13 or LM15 can only be programmed when the LED on the readhead is red. This can be achieved in two ways:

1. Remove the readhead from the magnetic scale.
2. Insert a ferrous metal strip between the readhead and the magnetic scale.
   **NOTE:** The metal strip used should not be magnetised as it could damage the scale.

Once the readhead is connected and the set-up LED is red the software will automatically detect the device. To read the settings press the READ button.

If you wish to reprogram the device, set the required options and press PROG. The device is now programmed to the new settings. The device can be reprogrammed as required.

If more than one device is connected, you can select the port by pressing the Tools button .




LM10 Configurator screen preview

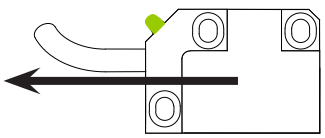
### Resolution

LM10, LM13 and LM15 can be used for linear and ring applications, so the resolution is defined by the interpolator factor. Please refer to the LM10, LM13 linear, LM13 ring, LM15 or Magnetic ring data sheet on which interpolation factor to use.

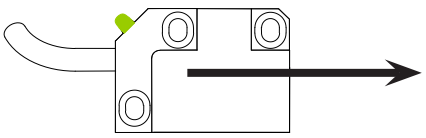
### Minimum edge separation (frequency)

Possible settings for LM10, LM13 and LM15 are 0.12 µs, 0.5 µs, 1 µs, 2 µs and 4 µs.

### Direction



**Positive**: signal A leads signal B if readhead moves in direction of cable exit



**Negative**: signal A leads signal B if readhead moves in direction away from cable exit

## Head office

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