

MANUAL

EDLF

SIX DIGIT REMOTE DISPLAY

Installation and user manual



Document	Version	Date	Applies to
Installation and user manual	V00x	08/2026	EDLF (L-RIP6100IP65)

The display for outdoor use: IP65 anodised aluminium, six digits 95 mm high, configured over the serial line. Section 7 describes the protocol.



Contents

- 1 About this manual**..... 3
- 2 Safety, warranty and disposal**..... 3
 - 2.1 User warnings..... 3
 - 2.2 Warranty..... 3
 - 2.3 Guidelines for proper disposal..... 3
- 3 Product description**..... 3
 - 3.1 Main features..... 3
 - 3.2 The four signalling LED..... 3
- 4 Technical data**..... 4
- 5 Installation**..... 4
 - 5.1 Mounting..... 4
 - 5.2 The ventilated valve..... 4
 - 5.3 Dimensions..... 5
- 6 Electrical connections**..... 5
 - 6.1 The two connectors..... 5
 - 6.2 Connector A — supply..... 6
 - 6.3 Connector B — serial line..... 6
- 7 Configuration and operation**..... 6
 - 7.1 The address letters..... 7
 - 7.2 Setting address and brightness..... 7
 - 7.3 Showing a value..... 7
 - 7.4 The two check characters..... 7
- 8 Approvals and standards**..... 7
- 9 Service**..... 8

1 About this manual

This manual applies to the six digit remote display **EDLF**, type **L-RIP6100IP65**. The display repeats a value that it receives over the serial line; it does not weigh and it cannot be calibrated.

Everything is set over the serial line — address, brightness and the value shown. There are no switches inside, and the housing stays shut for configuration. Section 7 gives the strings.

Values shown in a fixed-width typeface are either texts on the display or characters of a serial string, for example **%N3**. Terminal numbers refer to the printed numbers on the connectors.

2 Safety, warranty and disposal

2.1 User warnings

- Read the instructions before installing and using the display.
- Installation, electrical connection and commissioning must be carried out by qualified personnel only.
- The display is fed from mains voltage: 110 to 240 V AC. Disconnect it before working on the wiring, and provide a means of disconnection in the installation.
- Wiring the supplied connectors is the responsibility of the installer.
- Do not use the display outside the ambient conditions stated in section 4.
- Keep this manual available for the whole service life of the display.

2.2 Warranty

24 months from the date of the delivery note. The warranty covers failures of defective components due to construction defects or defects in materials and includes replacement or repair of the components and the related labour costs. The warranty is automatically forfeited in the event of tampering, removal of the identification label or serial number, misuse, transformation, alteration, or repair not carried out by the manufacturer.

2.3 Guidelines for proper disposal

This is electrical and electronic equipment and must not be disposed of as municipal solid waste; it has to be delivered to a recycling centre. Improper use or disposal can pollute the environment or damage human health. Dispose of the packaging as required by local regulations.

3 Product description

3.1 Main features

- Six semi-alphanumeric digits in bright red LED, 95 mm high, readable within 120° from any direction.
- IP65 anodised aluminium profile housing — built for outdoor use.
- Brightness set by hand from 1 to 10, or automatically from a light sensor.
- Four signalling LED and a red or green traffic light function, both driven over the serial line.
- RS232 and RS485, detected automatically; up to fifteen displays on one line, each with its own address.
- Anti-condensation ventilated valve balances humidity and pressure inside the housing.
- Connectors, a power cable of 1.3 m and wall brackets are included.

3.2 The four signalling LED

Beside the digits sit four LED, labelled **NET**, **GROSS**, **US** and **ST**. Like the traffic light function they are driven over the serial line, not by a switch on the display.

4 Technical data

Parameter	Value
Supply voltage	110 ... 240 V AC, 50 ... 60 Hz
Power consumption	< 10 VA
Display	6 digits, semi-alphanumeric, bright red LED, 95 mm high
Viewing angle	120° from all directions
Brightness	1 ... 10 by hand, or automatic from a sensor
Signalling	4 LED · red or green traffic light, over the serial line
Serial ports	RS232 · RS485, detected automatically
Protocol	ASCII
Baud rate	9 600 bit/s · 1 start bit, 1 stop bit, no parity
Addresses	15 · several displays on one line
Working temperature	-10 °C ... +50 °C
Storage temperature	-20 °C ... +60 °C
Humidity	85 %, condensate free
Protection rating	IP65 · anodised aluminium profile
Dimensions	745 x 160 x 50 mm
Mounting	wall, 2 x Ø 8.5 mm, 495 mm apart
Included	connectors · power cable 1.3 m · brackets
On request	sun and rain protection

5 Installation

5.1 Mounting

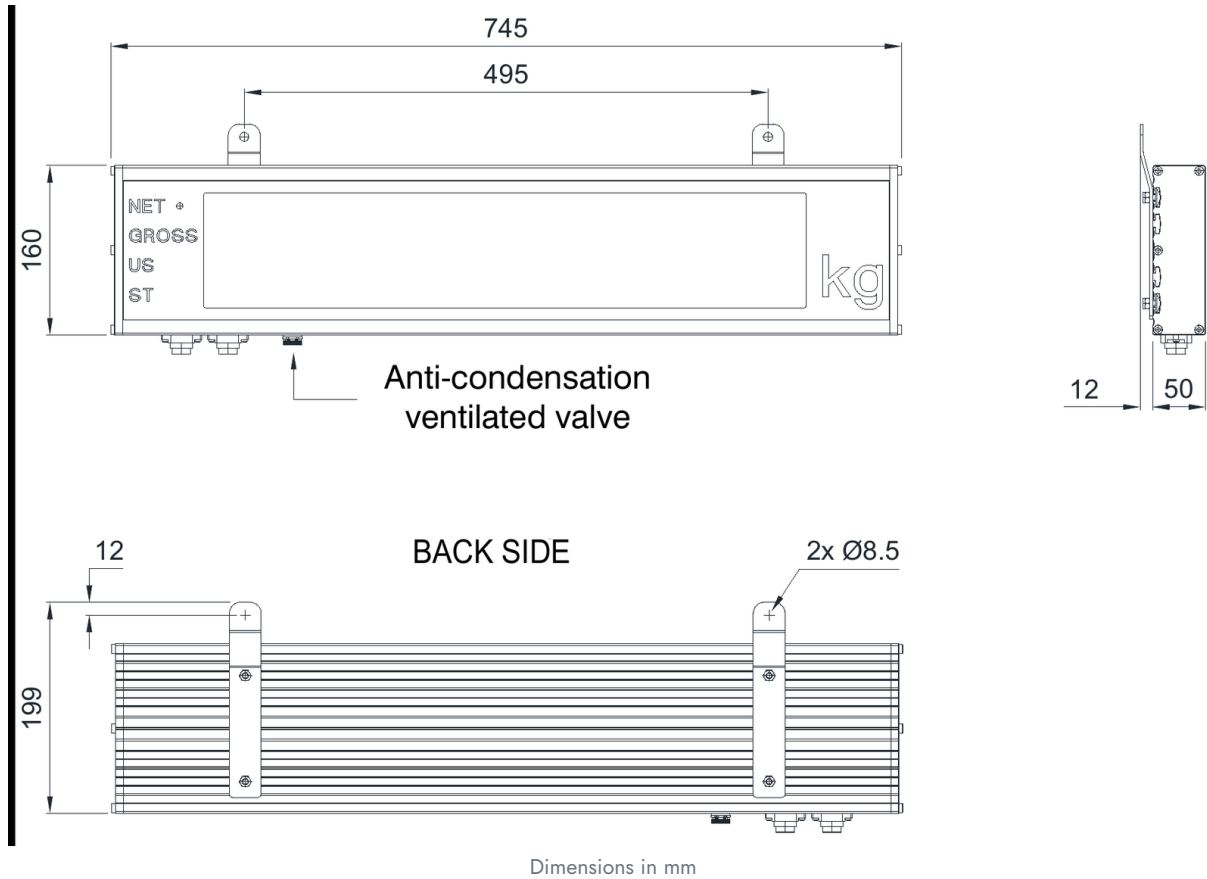
- Mount the display on a flat wall with the two supplied brackets: holes Ø 8.5 mm, 495 mm apart.
- Keep the display readable: within 120° of the front the digits stay legible, beyond that they dim.
- Outdoors, mount it so that rain runs off and the ventilated valve on the underside stays clear. For direct sun and driving rain the manufacturer offers a protection hood on request.
- The serial cable must not run together with power cables; give it its own path.

5.2 The ventilated valve

On the underside sits an anti-condensation ventilated valve. It balances humidity and pressure between the inside of the housing and the surroundings, which is what keeps condensate off the inside of the front panel when the temperature drops at night.

Do not seal it. Painting over the valve, taping it or mounting the display tight against a surface defeats it — the housing then breathes through nothing, and moisture stays inside.

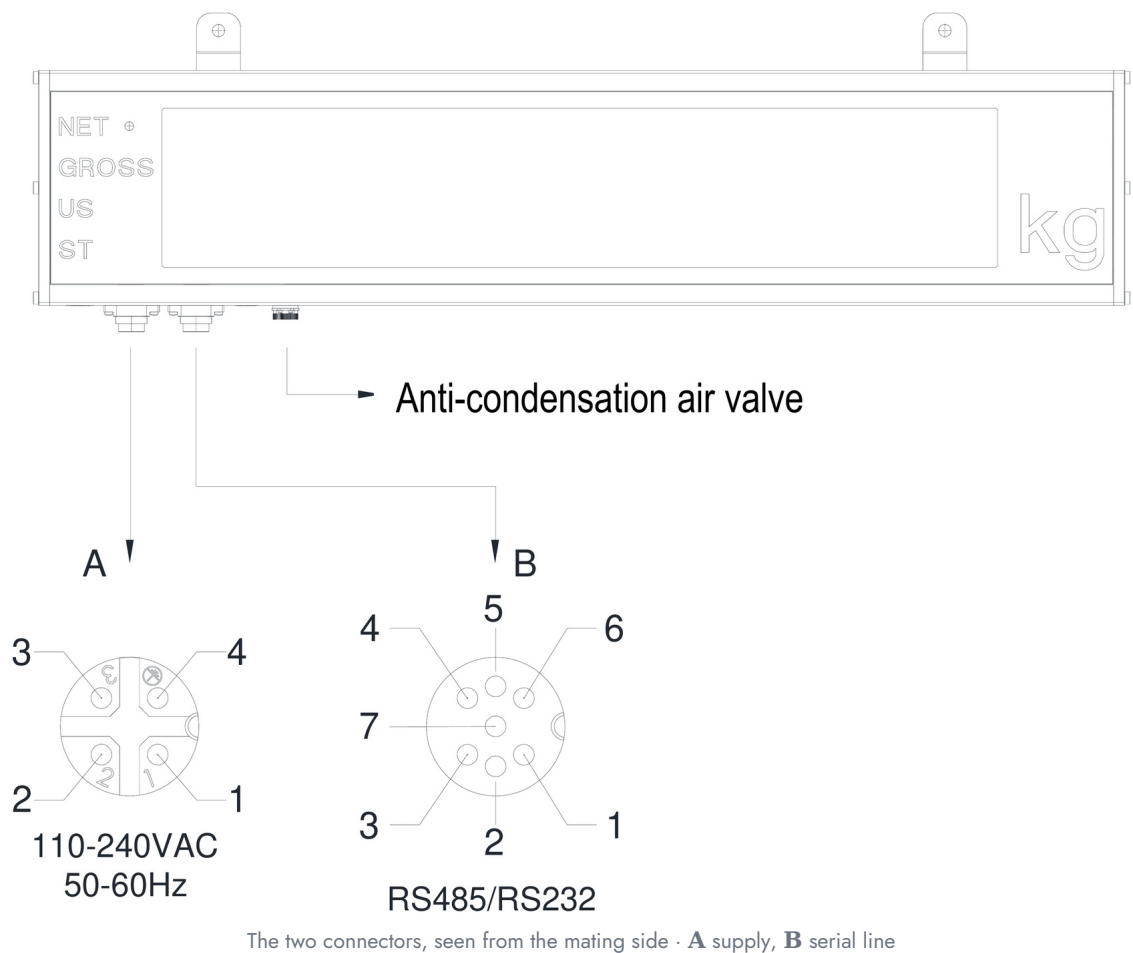
5.3 Dimensions



6 Electrical connections

6.1 The two connectors

Both connectors sit on the underside of the housing: **A** for the supply, **B** for communication and configuration. Both are supplied loose; wiring them is the installer's job.



6.2 Connector A — supply

Contact	Signal
1	L1
2	N
PE	protective earth

Mains voltage. 110 to 240 V AC at 50 to 60 Hz. The protective earth is not optional — the housing is metal.

6.3 Connector B — serial line

Contact	Signal
1	RS232 RXD
2	RS232 TXD
3	RS485 +
4	RS485 -
5	— not used
6	— not used
7	GND

Use either RS232 or RS485; the display detects which one is in use. For RS485 wire contacts 3, 4 and 7, for RS232 contacts 1, 2 and 7.

7 Configuration and operation

Set the serial port of the sending device to **9600 bit/s, 1 start bit, 1 stop bit, no parity** — the display accepts nothing else.

7.1 The address letters

Fifteen addresses are available. The letters are:

Available address letters
A B C D E F G H I L M N O P T

Not the whole alphabet. J, K, Q, R and S are not addresses, and T comes after P. Do not continue the row from memory — the missing letters are simply not accepted.

7.2 Setting address and brightness

Send one string:

String	Meaning
%XY<CR>	% start character (ASCII 37) · X address letter · Y brightness · <CR> end character (ASCII 13)

For Y use A for automatic brightness, or 0 to 9 for a fixed level. Example: %N3<CR> gives the display the address N and brightness level 3.

7.3 Showing a value

One string carries the values for two displays:

String	Meaning
&Axxxxxx Byyyyyy \ ckck <CR>	& start character (ASCII 38) · A address of the first display · xxxxxx six characters for it · B address of the second · yyyyyy its six characters · \ separator and string end (ASCII 92) · ckck two check characters · <CR> end character

The six characters may be figures, letters or a minus sign, and may include a decimal point. Examples:

String	First display	Second display
&L-00123N-12345\03<CR>	address L shows -123	address N shows -12345
&A00.023D1.2345\05<CR>	address A shows 0.023	address D shows 1.2345

Two equal addresses. A string may carry the same address letter twice. Then the **second** part of the string is what appears — the first is overwritten.

7.4 The two check characters

ckck are the two hexadecimal digits of the character-by-character XOR over the part **Axxxxxx Byyyyyy**. If the XOR yields **0x2A**, the check characters are **2** and **A**.

A wrong checksum is silent. If the check characters do not match, the display **ignores the whole string** — it shows no error and keeps the previous value. A display that seems frozen is the first symptom of a checksum that is calculated wrongly.

8 Approvals and standards

Declarations of conformity dated 2023-09-28. Because the display runs on mains voltage, the Low Voltage Directive applies in addition to EMC:

Mark	Legislation	Standards
CE	EMC Directive 2014/30/EU	EN 61000-6-2: 2005 · EN 61000-6-4: 2007
CE	Low Voltage Directive 2014/35/EU	EN 60204-1: 2014 · EN 60529: 1991/A1: 2000
UKCA	Electromagnetic Compatibility Regulations 2016	BS EN 61000-6-2: 2005 · BS EN 61000-6-4: 2007

Mark	Legislation	Standards
UKCA	Electrical Equipment (Safety) Regulations 2016	BS EN 60204-1: 2014 - BS EN 60529: 1991/A1: 2000

The display is not an approved weighing instrument and carries no metrological approval. Where a weight has to be legal for trade, the approval belongs to the weighing instrument that sends the value, not to the display that repeats it.

9 Service

For support please state the address the display is set to, whether RS232 or RS485 is wired, and an example of the string being sent.

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