

# Load Weighing Devices

## ILC3 LOAD WEIGHING DEVICE - INSTALLS ABOVE THE CAB

### ILC3 load weighing device



Part Number	Description
LW-ILC3-M-STD	Load weighing device with three relay outputs and cable connection, for 1:1 roping 13,200 lbs • 6000 kg capacity (please call if higher capacity is needed), automatic calibration. Accurate to within 5%. 24 - 48VDC power, 250V 3A relay contacts Select spacers and clamps (below) and optional cab display (see page 66)
LW-ILC3-M-ANLOG	Load weighing device, like above but with 0-20, 4-20 or 0-24 mA analog output



The ILC3 intelligent wire rope sensor is an easy and precise device for controlling the load in traction elevators. It mounts on the hoist ropes above the car in as little as five minutes - calibration is automatic and no test weights are required. It's perfect for modernizations as well as for new installations.

Clamps and spacers (sold separately) are determined by the spread of the ropes. A cab display that shows overload condition is available as an option.

#### Features

- Automatic calibration - no test weight required
- Fast, easy installation
- Universal clamp fits any wire rope diameter
- Three programmable alarm values (Presence, Full Load and Overload).
- Weight is visually displayed
- Accurate to 0.5%
- Built-in memory saves data
- Simple programming - just four keys program all parameters
- Choose either digital (3A relay) or analog (0-20 mA, 0-24 mA, 4-20 mA) output

### Clamps for ILC3 load weighing devices

Part Number	Description
LW-ILC3-CLAMP-2	ILC3 size 2 clamp, 3 to 4-3/8 in. • 76 to 115 mm of rope spread, two LW-SPACER required
LW-ILC3-CLAMP-3	ILC3 size 3 clamp, 4-1/2 to 6-1/4 in. • 116 to 160 mm of rope spread, two LW-SPACER required
LW-ILC3-CLAMP-4	ILC3 size 4 clamp, 6-3/8 to 7-3/8 in. • 161 to 188 mm of rope spread, two LW-SPACER required
LW-ILC3-CLAMP-5	ILC3 size 5 clamp, 7-1/2 to 10-1/4 in. • 189 to 263 mm of rope spread, four LW-SPACER required
LW-ILC3-CLAMP-6	ILC3 size 6 clamp, 10-3/8 to 12-1/2 in. • 264 to 318 mm of rope spread, four LW-SPACER required

### Spacers for ILC3 load weighing devices

Part Number	Description
LW-SPACER-38	Spacer for ILC3, 3/8 in. • 10 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7
LW-SPACER-12	Spacer for ILC3, 1/2 in. • 13 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7
LW-SPACER-58	Spacer for ILC3, 5/8 in. • 16 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7
LW-SPACER-1116	Spacer for ILC3, 11/16 in. • 17.5 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7
LW-SPACER-34	Spacer for ILC3, 3/4 in. • 19 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7

Wire Rope, Compensation and Accessories

# Load Weighing Devices

## LMC LOAD WEIGHING DEVICE - INSTALLS IN THE OVERHEAD

### LMC load weighing device



Part Number	Description
LW-LMC	Load weighing device (sensor only), for 1:1 (8800 lbs • 4000 kg), 2:1 (17,600 lbs • 8000 kg) or 4:1 roping (35,200 lbs • 16000 kg) capacity (please call if higher capacity is needed), automatic calibration, accurate to within 5%. Select spacers and clamps (below) and optional cab display (see page 66)

The LMC intelligent wire rope sensor is an easy and precise device for controlling the load in traction elevators. It mounts on the hoist ropes in the overhead in as little as five minutes - calibration is automatic and no test weights are required. It's perfect for modernizations as well as for new installations.

The LMC requires an LM3D control unit (see next page). Clamps and spacers (sold separately) are determined by the spread of the ropes. A cab display that shows overload condition is available as an option.

#### Features

- Operating capacity up to 16000 kg for 4:1 roping (8000 kg for 2:1 roping)
- Fast, easy installation
- Suitable for wire ropes from 6 to 20 mm diameter.
- Choose either digital or analog (0-20 mA, 0-24 mA, 4-20 mA) output



### LMC-REF load weighing device



Part Number	Description
LW-LMC-REF	LMC-style load weighing device for heavier applications for 1:1 (16500 lbs • 7500 kg), 2:1 (33000 lbs • 15000 kg) and 4:1 (66000 • 30000 kg) cab weight (cab weight + cargo + compensation) - Select spacers and clamps (below) Can accommodate rope spreads of up to 8-1/2 in. • 226 mm and rope diameters up to 3/4 in. • 19 mm

The Micelect LMC-REF load weighing device is designed for heavier applications, such as freight elevators or larger passenger cars. It can determine weights up to 16,500 lbs • 7500 kg in 1:1 roping and more in 2:1 and 4:1 roping schemes.

The LMC-REF is an enhancement over the standard LMC device in that it features a special humidity-resistant housing for extended life and reliability while carrying an IP65 rating.

The LMC requires an LM3D control unit (see page 64). Clamps and spacers (sold separately) are determined by the spread of the ropes. NOTE: Test weights are required for calibration.

#### Features

- Operating capacity up to 30000 kg for 4:1 roping (15000 kg for 2:1 roping)
- Fast, easy installation
- Choose either digital or analog (0-20 mA, 0-24 mA, 4-20 mA) output



### Clamps for LMC and LMC-REF load weighing devices

Part Number	Description
LW-LMC-CLAMP-3	LMC size 3 clamp, 3 to 4-3/8 in. • 76 to 115 mm of rope spread, two LW-SPACER required
LW-LMC-CLAMP-4	LMC size 4 clamp, 4-1/2 to 6-1/4 in. • 116 to 160 mm of rope spread, two LW-SPACER required
LW-LMC-CLAMP-5	LMC size 5 clamp, 6-3/8 to 7-3/8 in. • 161 to 188 mm of rope spread, four LW-SPACER required
LW-LMC-CLAMP-6	LMC size 6 clamp, 7-1/2 to 8-1/2 in. • 189 to 226 mm of rope spread, four LW-SPACER required
LW-LMC-CLAMP-7	LMC size 7 clamp, 8-5/8 to 10-3/8 in. • 227 to 263 mm of rope spread) four LW-SPACER required

### Spacers for LMC and LMC-REF load weighing devices

Part Number	Description
LW-SPACER-38	Spacer for LMC, 3/8 in. • 10 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7
LW-SPACER-12	Spacer for LMC, 1/2 in. • 13 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7
LW-SPACER-58	Spacer for LMC, 5/8 in. • 16 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7
LW-SPACER-1116	Spacer for LMC, 11/16 in. • 17.5 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7
LW-SPACER-34	Spacer for LMC, 3/4 in. • 19 mm, two required for clamp sizes 2, 3 and 4, four for clamp sizes 5, 6 and 7

# Load Weighing Devices

## WR LOAD WEIGHING DEVICE - MOUNTS ON INDIVIDUAL ROPES ABOVE CAR

### WR load weighing sensors



Part Number	Description
LW-WR-SENSOR-38	WR load weighing sensor, for individual 10 mm • 3/8 in. ropes - LM3D-EMC-CSA control unit required - see below. Automatic calibration. The WR attaches to individual ropes, operating capacity of 1200 kg • 2645 lbs per rope. Up to eight WR sensors can be wired into a single LM3D-EMC-CSA control unit.
LW-WR-SENSOR-12	WR load weighing sensor, for individual 13 mm • 1/2 in. ropes - LM3D-EMC-CSA control unit required - see below.
LW-WR-SENSOR-58	WR load weighing sensor, for individual 16 mm • 5/8 in. ropes - LM3D-EMC-CSA control unit required - see below.



WR sensors connect directly to individual ropes. Up to eight of them may be connected to the control unit at one time (LW sensors require an LM3D control unit - see below).

Each sensor has a cable 6.56 ft • 2 meters in length

#### Features

- Operating capacity up to 1200 kg per rope
- Fast, easy installation

### LM3D control unit

Part Number	Description
LM3D-EMC-CSA	Control unit for LMC with three relay outputs and one 0-20, 4-20 or 0-24 mA analog output, 115VAC
LM3D-EMC-CSA-5V	Control unit for LMC with three relay outputs and one voltage (not current) analog output, 115VAC
LM3D-EMC-CSA-220	Control unit for LMC with three relay outputs and one 0-20, 4-20 or 0-24 mA analog output, 220VAC

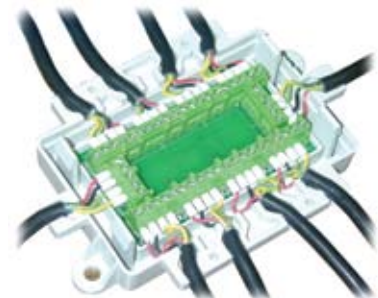


#### Features

- Three programmable alarm values (Presence, Full Load and Overload)
- Weight is visually displayed
- Accurate to 5%
- Built-in memory saves data
- Simple programming - just four keys program all parameters

### WR connection box

Part Number	Description
LW-CONN-BOX	WR connection box, used with the LM3D-EMC-CSA control unit, provides a clean and protected connection for cabling
LW-CABLE-CSA	CSA cable for WR connection box, connects LW-CONN-BOX to LM3D-EMC-CSA



# Load Weighing Devices

## MWR LOAD WEIGHING DEVICE WITH USB OUTPUT - MOUNTS ON INDIVIDUAL ROPES ABOVE CAR

### WR load weighing sensors



Part Number	Description
LW-MWR-SE-38-USB	WR load weighing sensor, for individual 10 mm • 3/8 in. ropes, with USB connector - LW-MWR-ANLOG-8 control unit required - see below.
LW-MWR-SE-12-USB	WR load weighing sensor, for individual 13 mm • 1/2 in. ropes, with USB connector - LW-MWR-ANLOG-8 control unit required - see below.
LW-MWR-SE-58-USB	WR load weighing sensor, for individual 16 mm • 5/8 in. ropes, with USB connector - LW-MWR-ANLOG-8 control unit required - see below.

MWR sensors connect directly to individual ropes. Up to eight of them may be connected to the control unit at one time (MWR sensors require an LW-MWR-ANLOG-8 control unit).

#### Features

- Operating capacity up to 1200 kg per rope
- Fast, easy installation



Wire Rope, Compensation and Accessories

### Control unit for MWR sensors

Part Number	Description
LW-MWR-ANLOG-8	Control unit for WR load weighing devices, with USB connectors - 0-20, 4-20 or 0-24 mA analog output

The ANLOG-8 control unit is used ONLY with LW-MWR-SE-38-USB, LW-MWR-SE-12-USB and LW-MWR-SE-58-USB sensors above.

#### Features

- Three programmable alarm values (Presence, Full Load and Overload)
- Weight is visually displayed
- Accurate to 5%
- Built-in memory saves data
- Simple programming - just four keys program all parameters



### Cab displays



Part Number	Description
LW-CABDISPLA-ML	Cab display, overload shown by flashing and intermittent buzzing
LW-CABDISPLA-LPM	Cab display, load shown by progressively lit LEDs, overload by flashing and intermittent buzzing This display cannot be used with LM-ILC3-M-ANLOG



# Load Weighing Devices

## NON-WIRE ROPE WEIGHING DEVICES

### Under cab sensor



Part Number	Description
LW-CAB-SENSOR	Under cab sensor, sold in multiples of 2 (4 to 16 may be used), features automatic calibration

Under cab sensors are ideal for new installations. They easily mount under the cab and are extremely accurate. They are self-calibrating and do not require test weights.

An LM3D-EMC-CSA control unit is required (page 64).

Under cab sensors are not recommended for modernizations.



### Beam sensor



Part Number	Description
023-4-0001	Cross beam-mounted load weighing device, with 6.5 ft • 2 meter cord and all necessary mounting hardware, 0-20, 4-20 or 0-24 mA analog output

This load weighing sensor mounts on the cross beams. An LM3D-EMC-CSA control unit is required (page 64). Test weights are also required for calibration.

- Use one sensor when the cab capacity is 2200 lbs • 1000 kg or less,
- AND when the cross beams are fixed to the same vertical beam,
- AND when the cab is situated symmetrically within the car sling.
- USE TWO SENSORS when the cab capacity exceeds 2200 lbs • 1000 kg,
- OR when the depth of the cab is 1.4x the cab's width,
- OR when the cab is NOT situated symmetrically within the car sling.



### Belt sensor



Part Number	Description
023-4-0003	Belt sensor, for individual 1/8 in. • 3 mm belts (sensor only), attaches to individual belts, operating capacity 2645 lbs • 1200 kg per belt.
023-4-0004	Belt sensor, for individual 3/16 in. • 4.6 mm belts (sensor only), attaches to individual belts, operating capacity 2645 lbs • 1200 kg per belt.

Up to eight belt sensors can be attached to a required LM3D-EMC-CSA control unit (see page 64).

Test weights are presently required for calibration - automatic calibration is pending.



Wire Rope, Compensation and Accessories