

CM-ENS - Liquid level monitoring relays
ABB's universal and flexible solution for
efficient liquid level controlling

Benefits of the CM-ENS range

Rely on us wherever you need us

ABB's new liquid level monitoring relays are the ideal solution to regulate and control liquid levels of conductive fluids. The product range includes single and multifunctional devices which can be used for overflow, dry-running protection of pumps, filling and draining applications as well as max. and min. level alarm. All relays are available with two different connection technologies. Wide range supply circuits reduce the number of variants and allow connection to all common voltages worldwide.

Functionality

- Wide range power supplies like 24–240 V AC/DC reduce drastically the number of variants and ensure a worldwide use
 - High immunity against electromagnetic disturbances due to advanced measuring technology
 - Adjustable sensitivity of the measuring system
 - Adjustable response sensitivities ¹⁾
 - Fill (UP) or Drain (DOWN), adjustable
 - Control of one or two liquid levels (min/max)
 - 2 c/o (SPDT) contacts
 - Selectable ON- or OFF-delay
- ¹⁾ depending on device

Applications

- Dry-running protection
- Overflow protection
- Liquid level control

Housing

- Compact housing, 22.5 mm (0.89 in) wide
- Housing material for highest fire protection classification UL 94 V-0
- All materials fulfill the highest environmental standards

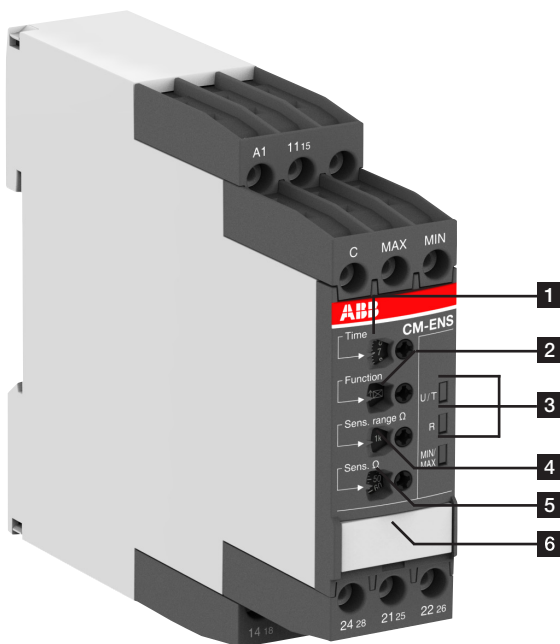
Installation

- Simplifies planning, maintenance and service
- 2 wiring technologies: screw terminals or Easy Connect Technology
- Tool-free mounting and demounting on DIN rail
- 3 LEDs for the indication of operational states
- Easy adjustment via front side potentiometers
- Electrodes are available as accessories

Accessories

- Bar electrodes
- Suspension electrodes
- Sealable transparent cover

Operating controls



1 Adjustment of the time delay

2 Adjustment of the function

- ↑ ON-delayed Fill
- ↓ ON-delayed Drain
- ↑ OFF-delayed Fill
- ↓ OFF-delayed Drain

3 Indication of operational states with LEDs

- U: green LED - Status indication of control supply voltage
 - Control supply voltage applied
 - time delay is running
- R: yellow LED - Status indication of the output relays
 - energized
- MIN/MAX: yellow LED - Status indication of the electrodes
 - MIN and MAX wet
 - MIN wet

4 Adjustment of the response sensitivity range

5 Adjustment of the response sensitivity

6 Marker label

Customer values, application examples



Global availability

You will find ABB control products in any application and corner of the world. They are in skyscrapers or windfarms, in offshore platforms or industrial areas which power the world. Approved by local and international standards. We believe in the strength of our brand and products - which is supported by our global service network to ensure your peace of mind.

- Latest approvals supports your installation complies to your local standards
- The product can be used in all installations in the world
- Giving you the confidence of world-wide sourcing – no matter where you build, install or operate your equipment.



Reliable in harsh conditions

Our engineers thrive on the challenge to develop products that need to operate in the most difficult electrical, mechanical and environmental conditions. Our solutions protect your application from overloads, network irregularities, mechanical wear, and environmental stresses ensuring your peace of mind. When you buy an ABB product, you buy extensive **environmental testing guarantee**.

- High immunity against electromagnetic disturbances due to advanced measuring technology
- Operation in environment with high vibrations possible

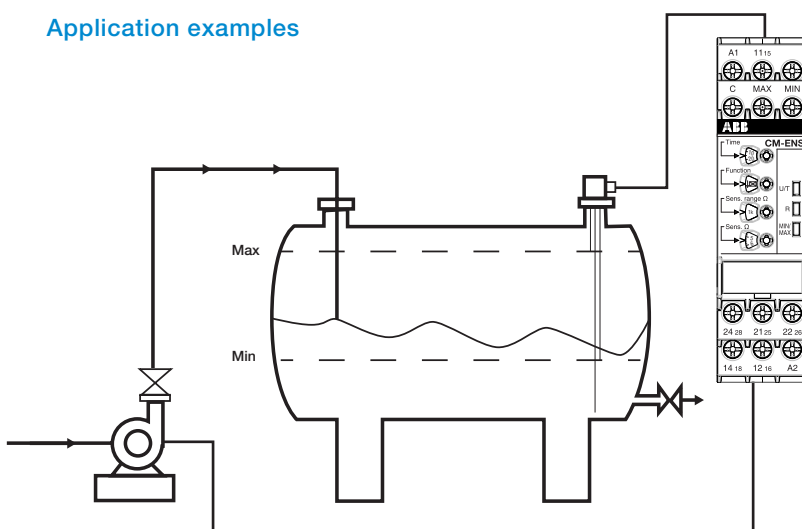


Improve installation efficiency

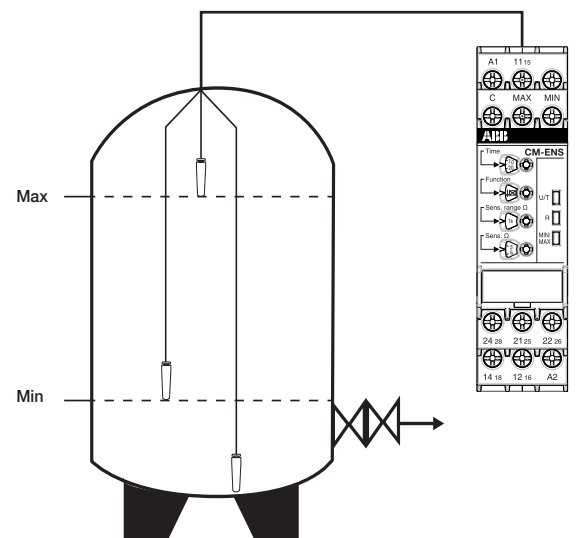
In everything we do, we think of the customer and the application first. Our engineers constantly look for ways to simplify the installation process by developing innovative product designs which facilitate the product assembly and avoid mounting errors. ABB product can improve our customers' productivity and machinery quality.

- Simplified wiring even in case of different cable diameters
- Easy to adjust via front-face potentiometer
- Tool-free mounting and demounting
- Tool free installation due to push-in technology

Application examples



Overflow protection via liquid level monitoring relay CM-ENS



Control of two liquid levels via liquid level monitoring relay CM-ENS

Contact us

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<http://new.abb.com/low-voltage/products/epr/monitors/liquid-level-monitoring-relays>

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