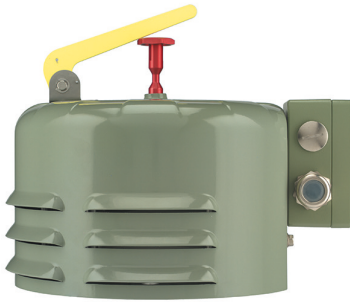


MESSKO® MPreC®

Pressure relief device for protecting transformers and tap changers



MPreC® LMPRD
Pressure relief device with standard cover,
terminal box, and semaphore

MESSKO® MPreC® pressure relief devices protect medium and large-sized distribution transformers, power transformers, and tap changers during periods of increased oil system pressure.

When the permissible tripping pressure of the valve is exceeded, the valve opens – all within milliseconds.

As soon as the value drops below this pressure, the valve closes again and forms an impermeable seal.

Advantages

- ▮ Opens in 2 ms; closes within 70 ms
- ▮ Valve stroke of approx. 4 mm up to forced activation of switching contacts
- ▮ Aluminum signal pin with two notches to prevent fallback of a pin that has not fully extended
- ▮ Protection for micro-switches and springs via protective cover made from marine-grade aluminum
- ▮ CDP-coated springs as per DIN 2095 (cathodic corrosion protection) and additional, internal seals
- ▮ Reliable foot step protection
- ▮ Computer-controlled (trip) tests, including plant certificate for every valve
- ▮ Helium leak detection tests
- ▮ Clear signal indication, no false tripping or wear-related faults
- ▮ Easy to exchange

Variants and options

- ▮ Triggering pressure of 4–30 psi (0.28–2.07 bar)
- ▮ With cable connection inclusive cable gland, terminal box, ANSI or Westinghouse connector
- ▮ Up to two micro-switches
- ▮ Seals made from Perbunan or Viton
- ▮ Cover for defined oil drainage
- ▮ Semaphore
- ▮ Offshore configuration

Sample configurations



MPreC® LMPRD OD
with terminal box and cover
for defined oil drainage

Pressure relief device

Matching accessories



FLANGE WITH INTERNAL
THREAD
for MESSKO® MPreC®
LMPRD OD



WELDING FLANGE
for MESSKO® MPreC®
LMPRD OD

Combinable products



MESSKO® MPreC®
TEST BENCH
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Additional information

www.reinhausen.com/messko-mprec

Technical data:

MESSKO® MPREC	Materials
Flange	Seawater-resistant cast aluminum
Standard cover	Seawater-resistant aluminum with RAL 7033 or RAL 7038 powder coating
Oil-directed cover	Seawater-resistant cast aluminum with RAL 7033 or RAL 7038 powder coating
Corrosion protection	In accordance with ISO 12944-9:2018, available in C4H or CX (optional)
Valve disk	Rust-proof steel (1.4301)
Sealing material	Perbunan (NBR) for mineral oils; optional fluorocarbon rubber FKM (Viton®) for alternative insulating media
Springs	Spring steel in accordance with EN 10270-1-SH, plastic-coated customer-specific part painting (KTL)
Indicator pin	Seawater-resistant aluminum, red (mineral oil) or blue (alternative coolant) anodized
Semaphore	Stainless steel with RAL 1026 acrylic resin coating
Vent screw	Stainless steel for oil bleeding in accordance with IEC 60076-22-1
	Dimensions
Cover	Ø 291 mm (Ø 11.46"), bolt circle Ø 235 mm (Ø 9.25"); 6 drilled holes each Ø 15.5 mm (Ø 0.61")
Installation height	With standard cover: 234.5 mm (9.23") / with semaphore: 340 mm (13.39") With oil-directed cover: 246.5 mm (9.71") / with semaphore: 442 mm (13.46")
Weight	With standard cover: approx. 6 kg (13 lbs.), with oil-directed cover: approx. 13 kg (29 lbs.)
Mounting gasket (optional)	Ø 200 x Ø 178.5 x 4.25 (Ø 7.87" x Ø 7.03" x 0.17")
	Operating temperatures
Environment	-50°C to +80°C (mechanical); -40°C to +80°C (micro-switch)
Oil	-30°C to +120°C
	Micro-switches
Number of switches	Up to 2 switches, 1x NO each, 1x NC each; electrically isolated
Contact load	As per IEC 60947-5-1: AC-15: 240 V / 3 A; 120 V / 6 A; DC-13: 250 V / 1.1 A; 125 V / 2.2 A
Max. continuous current	10 A
Rated insulation voltage	AC: 2.5 kV/1 min.
Degree of protection	IP65 or IP66
Connection designs	Cable connection with 1x or 2x M20x1.5 cable glands Terminal box with 1x or 2x M25x1.5 cable glands ANSI connector with 16 AWG, SOOW cable; available in various lengths

Pressure ranges:

Type	LMPRD 04	LMPRD 06	LMPRD 08	LMPRD 10	LMPRD 12	LMPRD 15	LMPRD 20	LMPRD 25	LMPRD 30
PSI	4 PSI ± 1	6 PSI ± 1	8 PSI ± 1	10 PSI ± 1	12 PSI ± 1	15 PSI ± 1	20 PSI ± 1	25 PSI ± 1	30 PSI ± 1
Bar	0.28 bar	0.41 bar	0.55 bar	0.69 bar	0.83 bar	1.03 bar	1.38 bar	1.72 bar	2.07 bar
kPa	28 kPa	41 kPa	55 kPa	69 kPa	83 kPa	103 kPa	138 kPa	172 kPa	207 kPa

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THE POWER BEHIND POWER.

