THE POWER BEHIND POWER.

MESSKO® MPREC®

Pressure relief device for transformers and on-load tap-changers

MESSKO® MPREC®– long-term safety for transformers

The MESSKO® MPREC® pressure relief device protects distribution and power transformers, electric coils and tap changers reliably and safely in the event of sudden pressure increases.

Special variants for directed oil flow and specific applications fulfill nearly all requirements in the offshore area or in wind turbines.

When the defined response pressure (4 to 30 psi) is reached, the valve plates and signal pin lift and the main switching contacts are triggered within 2 milliseconds. The proven design and perfectly coordinated springs ensure that the pressure relief device closes again securely.

Your advantages at a glance

- **Opens within 2 ms; closes within 70 ms**
- **Hood with interior micro-switches**
- **Maximum operational reliability**
- **Defined valve stroke of approx. 4 mm up to forced activation of the main switching contacts**
- **Weatherproof aluminum signal pin with two notches, self-locking**
- **Steel springs in accordance with EN 10270-1-SH, plastic-coated, customer-specific part painting (KTL)**
- **Seawater-resistant hood**
- **For special applications such as windpower or fire fighting systems**

MESSKO® MPREC® for optimum overpressure protection

Technical data

MESSKO® MPREC®	Technical data
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; other colors on request
Corrosion protection	According to ISO 12944-9:2018, available in C4H, C5H (optional) or CX (optional)
Valve disc	Stainless steel (1.4301)
Sealing material	Perbunan (NBR) for mineral oils; optional fluorine rubber FKM (Viton®) for alternative insulating media
Springs	Spring steel according to EN 10270-1-SH, plastic-coated customer-specific part painting
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 outlet according to IEC 60076-22-1
	Dimensions
Cover	Ø 291 mm (Ø 11,46"), bolt circle Ø 235 mm (Ø 9.25"); 6 holes Ø 15.5 mm (Ø 0.61")
Installation	With standard cover: 234.5 mm (9.23") / With semaphore: 340 mm (13.39") With oil-aligned drain cover: 246.5 mm (9.71") / With semaphore: 442 mm (13.46")
Weight	With standard cover: approx. 6 kg (13 lb), with oil-aligned drain cover: approx. 13 kg (29 lb)
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 (microswitch)
Oil	-30 °C to +120 °C
	Microswitch
Number of switches	Up to 2 switches, each with 1 x NO (normally open), 1 x NC (normally closed); galvanically isolated
Contact load	According to 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
Switching capacity	24 V DC...220V DC: Switching on 130 W, L/R < 40 ms; Switching off 25 W, L/R < 40 ms 230 V AC: Switching on 250 VA, cos φ > 0.5; Switching off 60 VA, cos φ > 0.5
Max. current	10 A
Rated insulation voltage	AC: 2.5 kV/1 min.
Degree of protection	IP 66
Connection designs	Cable connection with 1 x or 2 x M 20 x 1.5 cable glands Connection box with 1 x or 2 x M 25 x 1.5 cable glands ANSI plug 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

→ More information

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Please note:
The data in our publications may differ from the data of the devices delivered.
We reserve the right to make changes without notice.
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