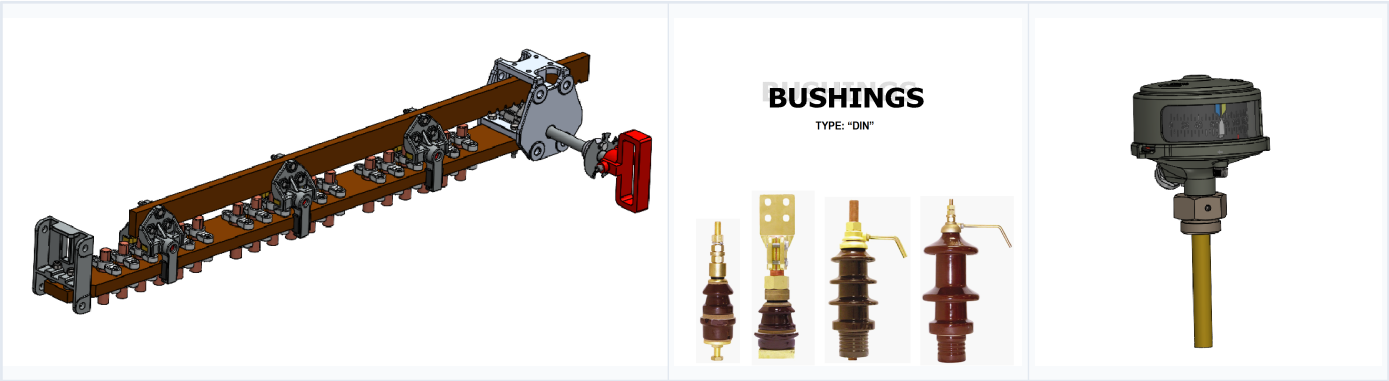


INCI TRANSFORMER ACCESSORIES • 2026 TECHNICAL CATALOG

DISTRIBUTION & POWER TRANSFORMER ACCESSORIES & PROTECTION EQUIPMENT

Engineered strictly to DIN, EN & IEC International Standards for Hermetic & Conservator Oil-Immersed Transformers up to 36 kV / 6300A.



COMPLIANCE STANDARDS DIN 42530 - 42533 • EN 50386 DIN 42551 • DIN 42562/67 • IEC 137	PRODUCTION SCOPE Tap Changers (30A - 1250A) Bushings up to 36 kV / 6300A Protection Relays & Thermometers	MANUFACTURING FACILITY Aksaray Erenler OSB (7,800 m²) 100% Factory Pressure & Seal Tested Zero-Moisture Nitrogen Packaging
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INTERNATIONAL EXPORT DESK & COMMERCIAL INQUIRIES
Musab K. — Authorized International Export Broker

- Direct WhatsApp / Phone: +90 530 651 60 06
- RFQ & Submittals Email: hello@kaskazada.com
- Official Web Portal: <https://kaskazada.com>
- Response Time: Formal quotation & drawing submittals within 24 hours

PORTFOLIO OVERVIEW & SELECTION MATRIX

Inci Transformer Accessories (INC) production range for distribution & power transformer OEMs, utility authorities, and rewind repair centers.

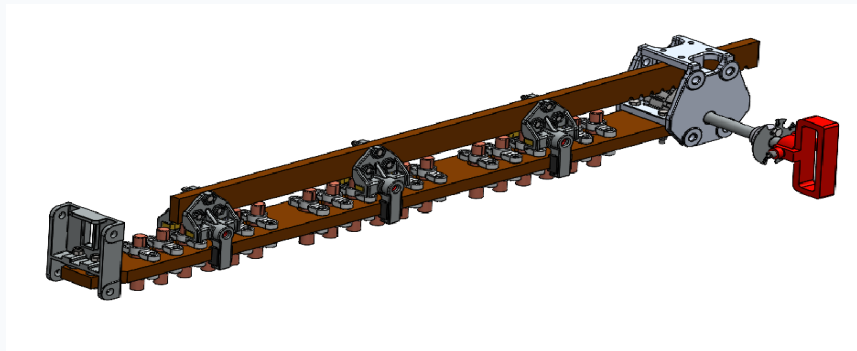
Category	Key Series	Primary Rating / Range	Governing Norms	Typical Application
1. Tap Changers	IHR, IHZ, IHM IHF II, III, IV	30A to 1250A 10 kV to 30 kV (BIL 170 kV)	DIN 7735, DIN 40500 DIN 17 673	Voltage ratio regulation in oil-immersed transformers
2. Thermometers	Type BT	0 - 120°C / 160°C 2 Contacts (Alarm + Trip)	DIN 16203 DIN 40050 (IP55)	Oil temperature monitoring & electrical overload protection
3. Pressure Relief	Type BAV	1/2" NPT Instant spring release	Factory calibrated SAE / DIN standard	Rapid overpressure venting; prevents transformer tank explosion
4. Oil Level Indicators	Form B, Type OLI-C	R1" threaded & flanged Magnetic float coupling	DIN 42569	Hermetic and conservator tank oil level indication
5. Vertical Relay	Type IHPR	R1¼" mounting Alarm + Trip contacts	DIN / IEC hermetic	3-in-1 Hermetic safety: gas accumulation, oil level drop, pressure rise
6. Moisture Holders	NM 0.15 - 0.25 kg Form A, B, C (0.5 - 2.4 kg)	Silica gel capacity 0.15 kg up to 2.4 kg	DIN 42562 DIN 42567	Dehydrating air breather with protective oil seal for conservators
7. Tank Metal Parts	NW 22, NW 31, NW 40 NW 15S - NW 50D	Up to 800 kVA, 1600 kVA & >1600 kVA ratings	DIN 42551 DIN 17100 (St37)	Oil draining devices, single/double flange ball valves, thermowell pockets
8. Bushings	DIN 42530, 531, 532, 533 EN 50386, ANSI	1 kV to 36 kV 250A to 6300A	DIN 42530-539 EN 50386, IEC 137	Outdoor/indoor LV & HV ceramic bushings, copper stems & brass flags

MANUFACTURING EXCELLENCE & MATERIAL INTEGRITY:

- **Conductive Copper:** High-conductivity Electrolytic Copper (E-Cu F25 to DIN 40500) with optional silver or tin plating.
- **Precision Brass:** Hot-forged and precision-machined CuZn40Pb2 (Ms60 F34 to DIN 17 673) for maximum corrosion resistance.
- **Insulating Components:** High-dielectric HP 2061.5 class phenol-paper laminates (DIN 7735) and UV-stabilized NYLON 66.
- **Sealing Integrity:** 100% oil-resistant NBR (nitrile butadiene rubber) and high-density cork-rubber gaskets rated up to 120°C hot oil immersion.

1. OFF-CIRCUIT TAP CHANGERS (DE-ENERGIZED)

Designed for voltage ratio adjustment in distribution & power transformers. Operates in mineral oil or synthetic dielectric fluids.



OPERATING PRINCIPLE:

Each switching step is secured by a robust notch mechanism on the control knob. To change tap positions:

- I. LIFT** knob axially against high-tension spring.
- II. TURN** knob to desired voltage tap number.
- III. SWITCH ON** and allow knob to drop into self-locking notch.

- Padlockable pull-rod available for tamper prevention.
- Knob position indicator engraved in English, Arabic, or custom languages.
- Multiple tap changers can be ganged via common shaft.

Series Code	Design Configuration	Rated Current	Voltage Class / BIL	Shaft Length (L)	Contact Layout
IHR Series	Compact rotary type	30A, 63A, 125A	10 kV, 20 kV (BIL 125 kV)	Fixed: 50, 70, 100, 130 mm	1, 2 or 3-phase, Star / Delta
IHZ Series	Linear standard type	30A to 125A	10 kV, 20 kV (BIL 125 kV)	Variable to customer spec	1, 2 or 3-phase, multi-layer
IHM Series	Multi-layer modular	Up to 125A	10 kV, 20 kV (BIL 125 kV)	Variable, edge or center drive	3-phase delta / star configurations
IHF II Series	Reinforced linear bar	100A, 150A, 220A, 400A	20 kV, 30 kV (BIL 170 kV)	Variable, high-torque shaft	Superimposable pairing with bolts
IHF III Series	Heavy-duty distribution	400A to 800A	20 kV, 30 kV (BIL 170 kV)	Heavy steel mounting bracket	Independent or common dual shafts
IHF IV Series	Extra-heavy power type	1000A to 1250A	20 kV, 30 kV (BIL 170 kV)	Reinforced bracket & linkage	High short-circuit withstand

REQUIRED RFQ PARAMETERS FOR TAP CHANGERS:

1. Model series (IHR / IHZ / IHF II / III / IV) • 2. Number of phases (1, 2, or 3-phase) • 3. Rated current (A) & Voltage class (kV) • 4. Number of tap positions (e.g., 3, 5, 7 pos.) • 5. Shaft length 'L' (mm) • 6. Connection diagram (Star, Delta, or Star-Delta) • 7. Repeater disc markings & language (English / Arabic / French).

2. BIMETAL THERMOMETERS & PRESSURE VALVES

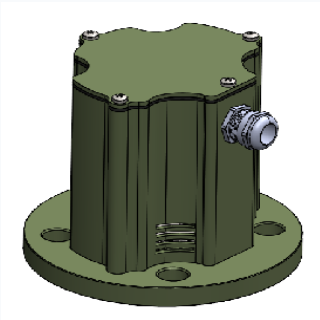
Essential monitoring and safety relief devices to prevent thermal breakdown and catastrophic tank rupture.

BIMETAL DIAL THERMOMETER (TYPE BT) DIN 16203 • Weatherproof IP43 / IP55 to DIN 40050



- **Application:** Continuous indication of top-oil temperature in conservator and hermetic distribution transformers.
- **Sensing Element:** Precision bimetal helix with high thermal linearity and vibration dampening.
- **Electrical Contacts:** 2 independent microswitches (Alarm + Tripping contacts) rated at **5A 250 VAC** or 0.2A 250 VDC.
- **Maximum Pointer:** Drag pointer records peak historical temperature; resettable via external knob.
- **Casing:** Cast aluminium alloy with electrostatic powder coating; UV-resistant polycarbonate viewing window.
- **Mounting Well (Pocket):** Brass or stainless steel thermowell with 1/2", 3/4" or 1" gas thread options.

PRESSURE SAFETY VALVES (TYPE BAV) Rapid-Venting Explosion Mitigation for Sealed Tanks



- **Application:** Protects sealed oil-immersed transformers against violent explosion caused by internal electrical arcing and explosive gas buildup.
- **Instant Discharge:** Disc/sleeve lifts instantaneously when internal pressure exceeds factory-calibrated setpoint, venting excess gas to atmosphere.
- **Automatic Resealing:** Reseats automatically once pressure drops below cracking pressure to prevent oil spillage or environmental ingress.
- **Construction:** High-strength brass / corrosion-proof aluminium housing, oil-resistant NBR O-ring seal, and stainless steel internal spring.
- **Manual Test Ring:** Stainless steel pull-ring allows routine operational inspection during maintenance shutdowns.
- **Connection:** Standard 1/2" 14 NPT threaded fitting.

Parameter	Bimetal Thermometer (Type BT)	Pressure Safety Valve (Type BAV)
Operational Rating	Scale: 0 to 120°C (or custom 0 to 160°C)	Factory pre-set cracking pressure (e.g., 20 - 70 kPa)
Switching Contacts	2 Microswitches (Alarm + Trip, 5A 250VAC)	Mechanical instantaneous discharge (No electrical contact)
Connection Size	R1/2", R3/4", R1" gas thread pocket	1/2" 14 NPT threaded base
Housing Material	Powder-coated cast aluminium alloy	One-piece forged brass with SS pull-ring

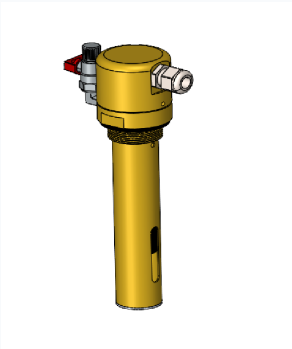
3. OIL LEVEL INDICATORS & VERTICAL RELAYS

Critical fluid-level telemetry and multi-hazard hermetic transformer protection instruments.



MAGNETIC OIL LEVEL INDICATOR (FORM B & TYPE OLI-C)
DIN 42569 • Hermetically Isolated Magnetic Transmission

- **Application:** Continuous visual monitoring of insulating oil level in transformers greater than 5000 kVA or standard distribution units.
- **Zero-Leakage Magnetic Coupling:** Float mechanism inside the tank transmits movement to the external dial magnetically through an isolated solid flange. The dial chamber never contacts oil.
- **Weatherproof Dial:** UV-stabilized transparent polycarbonate cover with internal anti-condensation breathing ports.
- **Type OLI-C:** Compact threaded design (R1") with high-density Rohacell float ball and brass thrust screw for compact distribution transformers.
- **Optional Alarm Contacts:** Can be fitted with magnetic reed microswitches for low-oil electrical SCADA alarm signalling.



VERTICAL PROTECTION RELAY (TYPE IHPR)
3-in-1 Multifunction Safety for Hermetically Sealed Transformers

- **Application:** Replaces individual sensors on hermetic transformers by integrating 3 essential safety functions directly onto the transformer oil fill pipe.
- **1. Oil Level Monitoring:** Detects slow leaks or fluid loss. When oil drops below critical threshold, primary float trips the safety circuit.
- **2. Gas Accumulation Detection:** Captures evolving hydrogen/methane gases produced by internal winding faults or dielectric breakdown.
- **3. Overpressure Response:** Fast pressure response triggers instant trip to protect hermetic corrugated tank walls from rupturing.
- **Models:** IHPR-S (Short, X=156 mm, Y=204 mm) and IHPR-L (Long, X=191 mm, Y=239 mm).
- **Mounting:** R1¼" threaded connection, M20x1.5 cable gland for alarm wiring.

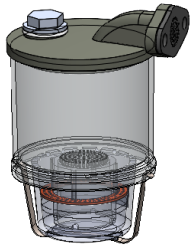
Feature	Magnetic Oil Level Indicator	Vertical Protection Relay (IHPR)
Target Transformer Type	Conservator tanks & sealed distribution units	Hermetically sealed oil-immersed transformers
Protection Functions	Visual dial scale (Min - Normal - Max)	Tri-function: Gas volume + Low oil + Tank pressure
Process Mounting	R1" threaded bushing or 4-hole DIN flange	R1¼" vertical thread onto top tank filling pipe

4. BREATHERS & TANK DRAIN HARDWARE

DIN standard air moisture filtering systems and hot-oil draining / sampling valves.

DEHYDRATING SILICA GEL BREATHERS (MOISTURE HOLDERS)

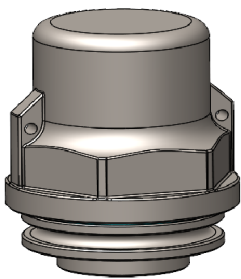
DIN 42562 • DIN 42567 • Form A, B, C & NM Series



- **Purpose:** Dehydrates ambient air drawn into the oil conservator tank as transformer cools down, eliminating dielectric breakdown caused by water condensation.
- **Oil Bath Hydraulic Seal:** The lower oil bowl (oil lock) prevents atmospheric moisture from continuously depleting the silica gel when no breathing occurs.
- **Range:** Compact NM 0.15 kg - 0.25 kg for distribution transformers up to heavy-duty 1.2 kg - 2.4 kg (DIN 42562) for large substations.
- **Materials:** Cast aluminium or GG-14 iron flanges, borosilicate glass or high-impact polycarbonate cylinder, forged CrNi stainless butterfly nuts.
- **Silica Gel:** Highly absorbent indicating silica gel beads (color-changing from orange/blue to indicate saturation).

TRANSFORMER TANK ACCESSORIES & DRAIN VALVES

DIN 42551 Oil Draining Devices • DIN 17100 Materials



- **DIN 42551 Draining Devices:** Consists of weldable socket (St34/St37), cast iron stop plug (GTW-35 DIN 1692), oil-tight NBR packing washer, and brass stop screw (GD-MS60 DIN 1709).
- **Thermal Rating:** Remains 100% leak-tight even under continuous 100°C hot oil immersion.
- **Sizes:** NW 22 (for transformers up to 800 kVA), NW 31 (800 to 1600 kVA), and NW 40 (above 1600 kVA).
- **Flanged Ball Valves:** Single flange (NW 15S, 25S, 50S) and double flange (NW 15D, 25D, 50D) for oil sampling and filtration hose connection.
- **Thermometer Pockets:** Weldable St37 steel cases with 1/2", 3/4" and 1" internal threads.

Item Type	Nominal Size / Code	Recommended Transformer Capacity	Weight / Thread
Dehydrating Breather	NM 0.15 - 0.25 kg	Distribution transformers up to 630 kVA	R1/2" connection pipe
Dehydrating Breather	Form A / B / C (0.5 - 1 kg)	Transformers 630 kVA to 2500 kVA	R1" connection flange
Dehydrating Breather	DIN 42562 (1.2 - 2.4 kg)	Power transformers > 2500 kVA	DIN flange mounting
Oil Drain Device	DIN 42551 NW 22	Transformers up to 800 kVA	0.56 kg / M24x1.5 thread
Oil Drain Device	DIN 42551 NW 31	Transformers 800 to 1600 kVA	1.29 kg / M33x1.5 thread
Oil Drain Device	DIN 42551 NW 40	Transformers above 1600 kVA	2.25 kg / M42x1.5 thread

5. LOW & HIGH VOLTAGE BUSHINGS (1 kV – 36 kV)

Full range of outdoor and indoor porcelain/ceramic bushings, copper stems, brass flags, and sealing accessories.



Standard / Series	Voltage Class	Rated Current	Stem Material	Terminal Flag / Clamps
DIN 42530 (LV)	1 kV Outdoor	250A, 630A, 1000A 2000A, 3150A	Brass (CuZn40Pb2) or Electrolytic Copper E-Cu	DIN 43675 Type EP & FP brass flags with 2 or 4 M12 holes
DIN 42531 (MV)	10 kV, 20 kV Outdoor	250A	Conductive brass stem with arcing horn option	ANSI clamps, eyebolts M10/M12, stainless washers
DIN 42532 (MV/HV)	20 kV, 30 kV Outdoor	250A to 630A	Copper stem with porcelain skirt insulator	Top & bottom arcing horns for spark gap protection
DIN 42533 (Power)	10 kV, 20 kV, 30 kV	1000A, 2000A, 3150A	Heavy-duty solid copper / brass stem	Multi-hole high amp spade flags, aluminium clamping rings
EN 50386 Series	1 kV to 36 kV	Up to 4500A & 6300A	Composite copper-brass stems	Heavy duty DIN 43675 flags, NBR ring & flange gaskets
DIN 42538 / 42539	Indoor / Cable Box	250A to 3150A	Immersed cable box stem	Internal oil-tight sealing bushings for enclosed substations

BUSHING HARDWARE & CUSTOMIZATION OPTIONS:

- **Gasket Materials:** Synthetic NBR rubber, impregnated cork-rubber, organic fiber, and presspaper.
- **Plating Finishes:** Natural brass, electrolytic tin plating, or high-conductivity silver plating.
- **Terminal Accessories:** Arcing horns (fixed & adjustable spark gaps), DIN 43675 flags (EP/FP/DP/AP-EL), and ANSI eye-bolt clamps.

6. PROCUREMENT GUIDE & DIRECT INQUIRY

Streamlined procurement channel for transformer manufacturers, utility contractors, and export trading firms.

STEP 1: DEFINE SPECIFICATIONS	STEP 2: RECEIVE FORMAL PROFORMA	STEP 3: EXPORT DISPATCH & QA
Submit your bill of materials (BOM) or RFQ stating: - DIN / EN standard reference - Voltage class (kV) & Rated current (A) - Quantity per item / annual volume - Flange, thread & gasket preferences	Within 24 business hours, our export desk provides: - Itemized unit pricing (FOB / CIF) - Production lead time & dispatch dates - Dimension verification drawings - Material test certificates (MTC)	Upon order confirmation: 100% factory dimensional & seal test - Export-grade wooden crates / pallets - Air freight or sea container shipping - Direct door-to-port customs clearance

INCI TRANSFORMER ACCESSORIES CO. (INC TRANSFO)

OFFICIAL EXPORT BROKERAGE CHANNEL:

Musab K. — International Sales & Export Broker

Direct WhatsApp / Phone: +90 530 651 60 06

Official Inquiries Email: hello@kaskazada.com

Web Portal: <https://kaskazada.com>

Plant Location: Erenler OSB, Aksaray / Export Desk: Istanbul, Turkiye

Export Markets: Saudi Arabia, UAE, Qatar, Oman, Iraq, Egypt & Worldwide

All international inquiries, OEM quotes, technical drawings, and purchase orders are processed strictly through Musab K. at Kaskazada Global Export Desk.



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