

DTA IL

BAUR oil breakdown voltage tester



Continuous inline test of breakdown strength

- Inline insulating liquid test in oil preparation systems
- Quality assurance during production processes
- Improved, easy oil sample handling
- Integration in existing production process control possible

The powerful BAUR oil breakdown voltage tester DTA IL is used for automatic inline testing of the electrical breakdown strength of insulating liquids in oil preparation systems.

Features

- High performance oil tester for breakdown tests of insulating oils during production processes (inline test)
- Suitable for portable and stationary oil preparation systems, specialised laboratories
- Test voltages of 0 to 100 kV_{rms}
- Automatic insulating liquid temperature measurement
- Inline test according to 18 pre-programmed test standards (adapted for inline operation: without stirring of oil sample)
- 10 user-programmable test sequences
- Measurements without air inflow thanks to hermetically sealed test vessel
- User interface and measurement logs in 13 languages
- Reliable measurement results due to its short switch-off time (< 10 μs)
- Clear breakdown detection with RBM technology and a new measurement principle directly at the HV output
- Connection to external controls (e.g. PLC) possible
- Easy connection of oil inlet and outlet lines
- Precise setting of electrode gap

Technical data

General			
Input voltage	90 – 264 V (50/60 Hz)	Storage temperature	-20 to +60 °C
Power consumption	Max. 70 VA	Humidity	Non-condensing
Output voltage	0 – 100 kV _{rms} symmetrical	Test standards (adapted for inline operation: without stirring of oil sample)	ASTM D1816:2012 1 mm, ASTM D1816:2012 2 mm, ASTM D1816/97, ASTM D877/D877M:2013 PA, ASTM D877/D877M:2013 PB, BS EN 60156, CEI EN 60156, CSSR RVHP:1985, IEC 60156:1995, IRAM 2341:1972, JIS C2101:2010, PN 77/E-04408, SEV EN 60156, UNE EN 60156, NF EN 60156, SABS EN 60156, VDE 0370 Part 5:96, AS 1767.2.1, quick test
Voltage slew rate	0.5 – 10 kV/s	User-specific test sequences	10
Switch-off time	< 10 µs	Dimensions (W x H x D)	545 x 458 x 380 mm (closed) 545 x 770 x 461 mm (open)
Voltage slew monitoring	Real Breakdown Monitoring (RBM)	Weight (without options)	Approx. 40.6 kg
Accuracy	0 – 100 kV ±1 kV	Degree of protection	IP 32
Resolution	0.1 kV	Safety and EMC	CE-compliant in accordance with Low Voltage Directive (2014/35/ EU), EMC Directive (2014/30/EU), Environmental testing EN 60068-2-ff
Internal temperature recording of the oil sample	20 – 70 °C	Software available in	German, English, French, Spanish, Portuguese, Italian, Russian, Czech, Polish, Dutch, Chinese (Cn), Chinese (Tw), Korean
Temperature resolution	1 °C		
Max. operating pressure in oil inlet and outlet lines	Max. 3 bar (at 70 °C oil temperature)		
Max. vacuum in oil inlet and outlet lines	Max. 0.66 mbar		
Potential-free control contact	Max. 12 V, max. 80 mA, NO contact		
Data interface	<ul style="list-style-type: none"> ▪ USB 2.0 (type B plug) ▪ BAUR Report Manager external USB interface (type A plug) 		
Printer	Matrix printer, 24 characters, 57 mm plain paper		
Display	Colour LCD (approx. 3.5"), screen resolution 320 x 240 pixels		
Ambient temperature (operational)	-10 to +55 °C		

Standard delivery includes

- BAUR DTA IL oil breakdown voltage tester incl. integrated plain paper printer
- 1 x test cell (test standard acc. to choice)
- Setting gauge
- Plug for remote start control
- Oil inlet and oil outlet lines, length 2 m
inner diameter: 6.00 mm
outer diameter: 8.00 mm
- Mains supply cord
- User manual

Options

- Dust cover
- Transport case
- Paper roll for printer, 57 mm width, 30 mm
- Ink ribbon (blue) for printer
- Setting gauges, 2.5 / 2.54 / 4.0 / 5.0 mm
- Test cells 0.7 l according to IEC 60156 Fig. II or ASTM D877
- BAUR Report Manager – External USB interface for measurement data management

Test cells (for selection)



Test cell 0.7 l with mushroom-shaped electrode in acc. with IEC 60156 Fig. II



Test cell 0.7 l with disk-shaped electrode in acc. with ASTM D877