

Specifications ACTAS



System concept	32 bit real-time test system for carrying out functional tests on all types of switchgear. Exact generation of simulated CLOSE and TRIP commands. Simultaneous, high-resolution recording of all decisive electrical and mechanical quantities with subsequent display and analysis on an external evaluation PC. All test parameters such as command times, command sequences, record length and evaluation algorithms can be freely configured. The result parameters obtained are automatically checked for limit value violation.		
Control outputs	Electronic switching outputs (IGBT) for one- or three-phase control of the CLOSE and TRIP coils as well as of up to 2 freely operable relay outputs. All operating sequences can be configured and issued in increments of 1 ms.		
	IGBTs for controlling operating coils	Voltage Current Operating accuracy	300 VAC 30 A AC/DC < 1 μ s Intrinsically safe via short-circuit and overload protection
	Relay outputs for controlling actuators	Relay Output Transistor Output	250 VAC / 8 A 35 VDC / 8 A (at 300 VDC / 0,15 A) 60 VDC / 0,4 A (PSU-Ctrl output)
	Analog outputs for controlling external power supplies	Output range	0 to 10 VDC
Measurement inputs	Various models with 1, 9, 14 or up to 22 analogue measurement inputs.		
	General	Sampling rates Record length A/D conversion Resolution Accuracy	500 Hz to 15 kHz, variable > 240 s, variable 16 bit 0.006% Error < \pm 0.1%
	Analog inputs	Close/trip coil current Coil/station voltage Motor voltage Motor current External transducers Sensor inputs Universal input I Universal input II Protection	30 A AC/DC, measuring range selectable 300 VAC 300 VAC 40 AAC \pm 10 VDC 2 VAC \pm 200 mV/ \pm 10 VDC \pm 10 V Galvanic isolation using linear opto-couplers
	Binary inputs	Sampling Rate Main contacts Resistive contacts Auxiliary contacts	8 kHz Activation level < 30 Ω Activation range > 30 Ω to 10 k Ω combined with main contact inputs Activation range 24 to 300 VDC single range, signal voltage can be supplied by the ACTAS.
	Incremental inputs for digital travel transducers	Signal voltage Protocol	5 VDC or 24 VDC RS422
		Limit frequency	100 kHz
	Additional interfaces	RS232	PC interfaces for the control of external sources for power supply, for testing undervoltage and overcurrent releases and for carrying out primary and insulation tests.
		GPiB (IEEE 488)	optional

Complete system Operation, system control, data storage and analysis using a standard external Windows PC.

User interface	ACTAS system software for configuring, performing and analysing switchgear tests under Windows 2000/XP	
Power supply	Nominal voltage 85 to 265 VAC, 47 to 63 Hz, 110 to 350 VDC	
Connections	On the front panel via 4 mm safety banana and multi-pole sockets.	
Serial interface	RS232 connection (ACTAS: DB-9 connector, PC: DB-9 socket), USB, galvanically isolated	
Housing	Portable ½ 19" or 19" housing, 3 or 4 HU, the handle can be used as a stand. Also available as a 19" drawer for rack mounting in a stationary environment.	
Environment	Operating temperature range	0° to 50°C
	Susceptibility	according to IEC 255/IEC 801
	EMC	1 MHz sine according to IEC 255
	Protection	IP20
	Safety standard	EN 61010-1 300 V~ CAT II
	EMC emissions	EN 50081-2 industrial
	Susceptibility	EN 50082-2 industrial

Product Specifications

	ACTAS P22	ACTAS P14	ACTAS P6	ACTAS P3
Control Outputs				
Close coils	3	3	1	1
Trip coils	3	3	1	1
Relay outputs	2	2	1■	-
Analog measurement inputs				
Coil Current	3 x 2 (I/O)*	3 x 2 (I/O)*	1 x 2 (I/O)	1 x 2 (I/O)
Coil-/ stationvoltage	2	1	1	-
Motor current via shunt	1	1	1	-
Motor voltage	1	-	-	-
Ext. sensor (travel/press.)	3*	3*	2	-
Inkcr. Travel transducer	6	6	1	1■
MicroOhm current	1*	1*	1	-
MicroOhm voltage drop	1*	1*	1	-
Sensor input (current clamp)	-	-	1	-
Universal input I	6	-	-	-
Universal input II	-	2*	-	-
Binary measurement inputs				
Main- and resistive contacts	3 x 6 (3 x 8 ■)	3 x 6 (3 x 8 ■)	3 x 2	3 x 2
Auxiliary contacts	3 x 6	3 x 4	2 x 4	2 x 4
Analog outputs				
Control output for external Power Supply Unit	2■	2■	-	1■
Constant current source 10 A	6■	-	-	-
Reference voltage for external sensors	10 VDC, 3 W■	10 VDC, 3 W■	10 V DC, 2 W■	-
Further connections				
Control output for external MicroOhm Meter	1	1	1	-
PC-Interface				
RS232, USB	■	■	■	■
Optical isolation	■	■	■	■
Bluetooth	■	■	■	■
Housing				
	19", 4 HE	19", 3 HE	½ 19", 3 HE	ABS
Dimensions (W x H x D) without handle [mm]	470x204x316	470x160x316	257x160x316	158x130x272
Weight	11 kg	8 kg	4 kg	2,5 kg

*) at 1 phase coil current / phase travel measurement

■ series ■ option