



Data Sheet

BS7671/'16th edition' test equipment selection guide

Insulation and continuity testers

Make	Model	RS stock no.	Insulation test voltages				Insulation ranges MΩ	Continuity test		Resistance ranges	Continuity buzzer	Lead null facility	Voltage ac reading	Display type	Carrying case	Warranty
			50V	100V	250V	500V	1000V	Ranges	Current mA							
Robin	KMP 3075DL	216-4897	-	-	Yes	Yes	Yes	0-20	>200	0-200, 2000	<5 ohms	Yes	Bargraph	Digital	Carry strap	2 year
	KMP 3050DL	216-4904	-	-	Yes	Yes	Yes	0-20	>200	0-200, 2000	<5 ohms	Yes	Bargraph	Digital	Carry strap	2 year
	KMP 3010DL	216-4926	-	-	Yes	-	-	0-20	>200	0-200, 2000	<5 ohms	-	Warning only	Digital	Carry strap	2 year
	K3131DL	216-4932	-	-	Yes	Yes	Yes	0-2	>200	0-20	-	-	Warning only	Analogue	Carry strap	2 year
	K3106	334-9588	-	-	Yes	Yes	Yes	0-3,600	>200	-	-	-	Warning only	Analogue	Carry strap	2 year
Metrohm	16D/251B	217-012	-	-	Yes	Yes	Yes	0-15	>200	0-200	<2 ohms	-	500	Digital	Hard case	2 year
	16A/251B	217-028	-	-	Yes	Yes	Yes	0-2	>200	0-200	<1 ohm	-	500	Analogue	Hard case	2 year
	16D/500D	217-034	-	-	Yes	-	-	0-15	>200	0-200	<2 ohms	-	500	Digital	Hard case	2 year
	16A/500C	217-056	-	-	Yes	-	-	0-2	>200	0-200	<1 ohm	-	500	Analogue	Hard case	2 year
	DMS251A	206-488	-	-	Yes	Yes	Yes	0-200	>20	-	<1 ohm	-	500	Digital		
Megger	BM121	198-0294	-	-	Yes	-	-	0.1-9.99	210	10.1-999	-	-	Warning only	Digital	Zip case	3 year
	BM100/4	205-362	-	-	Yes	-	-	0-2	>210	0-200	-	-	600	Analogue	Zip case	3 year
	BM101/4	206-034	-	-	Yes	-	-	0-2	>210	0-200 & 0-1M	-	-	-	Analogue	Zip case	3 year
	BM221	254-9658	-	-	Yes	-	-	0.01-9.99	210	10.0-99.9	<5 ohm	Yes	600ac/dc	Both	Zip case	3 year
	BM222	254-9664	-	-	Yes	Yes	Yes	0.01-9.99	210	10.0-99.9	<5 ohm	Yes	600ac/dc	Both	Zip case	3 year
	BM223	254-9670	-	-	Yes	Yes	Yes	0.01-9.99	210	10.0-99.9	<5 ohm	Yes	600ac/dc	Both	Zip case	3 year
	BM224	254-9686	-	-	Yes	-	-	0.01-9.99	210	10.0-99.9	<5 ohm	Yes	Warning only	Both	Zip case	3 year
	BM400/2	222-1962	-	-	Yes	Yes	Yes	0.01-9.99	>200	0-1 & 10k	<5 ohm	Yes	600ac/dc	Both	Zip case	3 year
	BM401/2	222-1978	-	-	Yes	-	-	0.01-9.99	>200	0-1 & 10k	<5 ohm	Yes	600ac/dc	Both	Zip case	3 year
	BM402/2	222-1984	-	-	Yes	Yes	Yes	0.01-9.99	>200	0.1-10k	<5 ohm	Yes	Warning only	Both	Zip case	3 year
	BM403/2	222-1990	-	-	Yes	Yes	Yes	0.01-9.99	>200	0.1-10k	<5 ohm	Yes	600ac/dc	Both	Zip case	3 year
	BM80/2	222-1956	Yes	Yes	Yes	Yes	Yes	0.01-9.99	>200	0.1-10k	<5 ohm	Yes	600ac/dc	Both	Hard case	3 year
	IR750	214-079	-	-	Yes	Yes	Yes	0-19.99	>200	0-2000	<1000	Yes	30-500	Digital	Zip case	1 year
	SBS7671	836-281	-	-	Yes	Yes	Yes	0-19.99	>200	0-199.9k	0-20Ω	Yes	0-500	Digital	Carry strap	1 year

Fused test leads

Where insulation testers are likely to be used as voltage measuring instruments on power circuitry, fused test leads are recommended as detailed in HSE Guidance Note GS38. A selection of fused test leads is available and is detailed in the Electrical Test Section in Part 2 of the **RS** Catalogue.

Continuity test current

Some insulation and continuity testers use a 20mA continuity test current, that has for some years been the accepted standard in the UK. European standards insist upon a 200mA continuity test current. The recently released European Harmonisation document HD384 requires that instruments manufactured after 1998 will have to give 200mA into a short circuit on the continuity range. Some manufacturers have already reacted to this and offer 200mA capability or a 200mA option on their instruments. Instruments with a 20mA continuity test will offer much longer battery life, whereas 200mA units cannot. The exception to this is the Robin KMP3075, which through use of Trac-Lok circuitry can extend the battery life by up to four times.

Calibration

All 16th Edition insulation testers offered by **RS** Components may be purchased with a calibration certificate giving traceability to national standards. Please see the current **RS** Catalogue for full details.

Earth loop impedance testers

Make	Model	RS stock no.	Loop impedance ohms				PSC measurement	Audible warning	Auto test	Test leads	Carry case	Auxiliary test leads RS stock no.	Other features
			0-15	0-20	0-200	0-2000							
Robin	KMP4120DL	216-4948	–	X	X	X	3 ranges	Yes	Yes	Yes	Strap	Supplied	D-Lok, 2 year warranty
	KMP4116DL	216-4954	–	X	X	X	–	Yes	Yes	Yes	Strap	179-4295	2 year warranty
	KMP4118DL	208-2701	–	X	X	X	3 ranges	Yes	Yes	Yes	Strap	Supplied	2 year warranty
Megger	LT5	205-384	–	X	X	–	–	Yes	Yes	Yes	Yes		3 year warranty
Seaward	SB7671	836-281	–	X	X	X	0-48.0kA	Yes	Yes	Yes	Strap	179-4295	Full BS7671 Capability

RCD testers

Make	Model	RS stock no.	RCD test ranges						Current options			Selectable test times	Auxiliary test lead RS stock no.	Carry case	Other features
			6mA	10mA	30mA	100m	300m	500m	0.5X	1X	5X				
Robin	KMP5404DL	216-4960	X	X	X	X	X	X	X	X	X	Yes	179-4295	Strap	2 year warranty
	KMP5406DL	216-4976	X	X	X	X	X	X	X	X	X	Yes	179-4295	Strap	Tests dc breakers,t constant current
Metrohm	16R/240A	267-7236	X	X	X	X	X	X	X	X	X	Yes	179-4295	Yes	2 year warranty
Megger	CBT3	205-996	X	X	X	X	X	X	X	X	X	Yes	179-4295	Yes	Displays 'Fail' 3 year warranty
Seaward	RC750	212-994	X	X	X	X	X	X	X	X	X	Yes	179-4295	Yes	
Seaward	SBS7671	836-281	X	X	X	X	X	X	X	X	X	Yes	179-4295	Strap	Automatic testing Full BS7671 Capability

Multifunction BS7671 test instrument

The Seaward SB7671 (**RS** stock no. 836-281) is an installation tester, and combines the functions of the three test instruments most commonly used to test electrical installations. In addition to comprehensively encompassing the specifications of an insulation tester, loop tester and RCD tester, the SBS7671 is able to store readings of each set of tests undertaken. These test results, kept in non-volatile memory, can subsequently be printed out or down loaded into a PC with suitable software such as Shire Systems 'Downloader Software' (**RS** stock no. 408-527) or Shire EISYS software (see below).

The Robin KTS1610 (**RS** stock no. 207-9957) is a compact tester that combines the functions of the three test instruments most commonly used to test electrical installations, including:

- 200mA continuity test
- 20mΩ, 200mΩ & 2000mΩ insulation test ranges
- 0-20Ω, 0-200Ω, 0-2000Ω earth loop impedance test
- RCD test function with positive or negative half cycle test option.

Fixed installation management software

AVO Powersuite™ electrical testing software is suitable for installation testers, portable appliance tester and most other makes of similar test equipment. The software can also read and convert data from most of the existing database programs providing a flexible system upgrade path to a Windows package for users of existing electrical asset management or electrical test result programs.

AVO Powersuite™ is supplied in three different packages. Powersuite™ Complete Solution (**RS** stock no. 228-2995) consists of both Powersuite™ Portable Appliance Software (**RS** stock no. 228-2973) and Powersuite™ Electrical Installation Software (**RS** stock no. 228-2989).

Powersuite™ Electrical Installation Software holds client and location details and an organiser to assist in forward planning for inspection and instrument calibration. Other features provided are full certificate printing, automatic download from most communicating installation test instruments, on screen help and a new instrument learn mode.

AVO PowerSuite XPress (**RS** stock no. 410-0126) provides a fast and easy way to create professional certificates and other documents. Providing straightforward certification for the smaller business not requiring the complexity of a database product.

Amtech CableMaster for Windows™ (**RS** stock no. 201-5199) is an electrical design software able to carry out cable sizing and protection discrimination studies. It is capable of calculating a system comprising a Main Switchboard and up to three Sub Distribution boards or MCC's each catering for up to 100 3 phase ways together with all Sub-Mains cables and final Sub-Circuits. In addition to carrying out calculations to the latest edition of BS7671 (IEE Wiring Regulations), CableMaster will document the design in both graphical and report format.

Amtech Fast Test Software for Windows™ (**RS** stock no. 355-6944) is software for the production of the Certification of Electrical Installations as required by BS7671 (IEE Wiring Regulations). It also aids in the documenting of existing sites as required by the Electricity at Work Regulations. It is able to produce its own certificates or print directly on to the latest NICIEC certificates and data validation is carried out to meet NICIEC requirements. Working with CableMaster, drawings of an installation can be automatically produced from data which has been entered into TestMaster and calculations can then be made to check compliance with BS7671.

Please refer to the 'Electrical Test' section of your current catalogue for a more complete description of these products.

Also available to comply with 16th Edition regulations:

		RS stock no.		
16th Edition Test Kits	Robin	R16ADL Kit	216-4982	K3131DL, KMP4120DL, KMP5404DL, Test Leads, Soft Carrying Case, Certificates and Labels
	Robin	R16DDL Kit	216-4998	KMP3075, KMP4120DL, KMP5404DL, Test Leads, Soft Carrying Case, Certificates and Labels
	Robin	R16EDL Kit	216-5008	KMP3010DL, KMP4120DL, KMP5404DL, Test Leads, Soft Carrying Case, Certificates and Labels
	Metrohm	FTK17	217-078	16L240A, 16R240A, Test Leads and Case (allowing a selection from range of ins. testers)
Digital Earth Tester	Megger	MTK18	222-1912	} 4 terminal earth tester Hand held 4 terminal earth tester
	Megger	DET5/4	222-1940	
	Metrohm	E1610	174-511	
Earth Testing Accessory Kit	Megger		204-612	4 terminal earth tester
	Metrohm		174-527	4 Auger test kit with easy to use screw augers
Completion and Inspection Labels			206-719	Appendix 6 of the IEE Wiring Regulations

Also available from the **RS** Catalogue is a comprehensive range of Regulations, Technical Books and Training Aids

	RS stock no
16th Edition Regulations (Paperback)	412-9997
16th Edition Regulations (Hardback)	413-0060
IEE Wiring Regulations Guidance Notes 1	340-8924
IEE Wiring Regulations Guidance Notes 2	340-8980
IEE Wiring Regulations Guidance Notes 3	340-8968
IEE Wiring Regulations Guidance Notes 4	340-8952
IEE Wiring Regulations Guidance Notes 5	340-8946
IEE Wiring Regulations Guidance Notes 6	340-8930
IEE Wiring Regulations Guidance Notes 7	340-8261
A Guide to the 16th Edition IEE Wiring Regulations	915-930
Handbook on the 16th Edition of the IEE Wiring Regulations	422-9182
IEE Wiring Regulations Explained and Illustrated	915-441
Testing to the 16th Video (AVO)	212-950
A guide to 16th Edition Testing Video (Robin)	207-9979

Note: All the above publications can be found in the Technical Books and Training Section Part 2 of the **RS** Catalogue, with the exception of the videos which are in the Electrical Test Section, Part 2 of the **RS** Catalogue.

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