

Electro-Magnetic Distance Measuring Instruments

BY T. P. JONES, O.L.S.

On the opposite page will be found statistical data on some E.D.M. units in tabular form.

The weight column does not mean very much. Some figures include the counter-weight, and others do not.

Some of the distances shown in the 'Range' column can only be obtained with special antennas on the micro-wave instruments, and with extra (in one case nineteen!) prism reflectors in the infra-red instruments.

The accuracy column should be O.K.

Prices shown are in Canadian dollars and include Federal sales tax. In the micro-wave, they include master and remote units. In the electro-optical, if a battery is built-in, the cost includes it; if the battery is separate, it does not. So this column is not very reliable either. Please let it serve as a rough guide only.

About the only thing that can be said for sure about it is that it is an incomplete list of E.D.M. instruments that are available today.

Another list, of the companies whose cooperation in compiling this was quite extra ordinary, is included. For further information on any instrument, please write or phone them. They will welcome each and every enquiry.

AGA

Agatronics Ltd.
41, Horner Ave. Toronto.
M8Z 4X4 416-252-4691

Hewlett-Packard

Hewlett-Packard,
6877, Goreway Drive, Mississauga.
L4V 1L9 416-678-9430

Kern Instruments.

Kern Instruments of Canada Ltd.
163, Echo Drive, Ottawa.
K1S 1M9 613-235-4908
Hughes Owens,
109, Bermondsey Road, Toronto.
613-757-8751

Keuffel & Esser.

Keuffel & Esser of Canada Ltd.
124, Milner Ave. Scarborough.
M1S 3R2 613-298-1750

Krupp

Marinav Corp.
1140, Morrison Drive, Ottawa.
K2H 2V5 613-820-6600

Precision International.

Zeiss Jena
Jena Instruments (Toronto) Ltd.
199, Ashtonbee Road, Scarborough.
M1L 2P1 416-751-3648

Siemens-Albis.

see Wild-Leitz

Sokkisha.

Faber-Castell Canada Ltd.
1325, The Queensway, Toronto
M8Z 1S9 416-789-7533

Tellurometer.

Tellurometer Canada Ltd.
1805, Woodward Drive, Ottawa.
K2C 0P9 613-225-3620
J. W. Davis Co. of Canada.
50, Doncaster Ave. Unit 7, Thornhill.
L3T 1L4 416-223-7672

Wild-Leitz.

Wild-Leitz Canada Ltd.
881, Lady Ellen Place, Ottawa.
K1Y 4G1 613-722-4231
Norman Wade Co. Ltd.
75, Milner Ave. Scarborough.
M1L 4C8 416-291-4211

Zeiss.

Carl Zeiss Canada Ltd.
45, Valleybrook Drive, Don Mills.
M3B 2S6 416-449-4660

CHECK LIST FOR PURCHASERS

Is the Company representative knowledgeable?

Can he answer your technical questions briefly and accurately?

What warranty is offered on a new instrument?

Does it include labour, as well as parts?

What accessories are included in the price, and what are extras?

How much do the prisms cost?

How many will you need to meet your requirements?

Does it require custom prisms, or can you use your old ones?

Is the shipping and carrying case appropriate?

Does it offer adequate protection?

Is the unit too heavy or awkward in size?

Does it appear to be robust and able to stand up to mis-use?

Does the unit appear to be reasonably waterproof?

What form of adaptor is used?

What form of locking mechanism is provided?

Is the design and manufacture of the adaptor and locking mechanism of high quality?

Will they stand up to repeated use over several years?

Is it telescope mounted?

Can the telescope be plunged?

Does it attach to the standards?

Can it be mounted on all types of theodolites?

Can it be mounted on theodolites in your inventory?

Can it be mounted directly onto a tripod or tribrach?

Is there an instrument sighting telescope?

Is there a low battery voltage indicator?

Does the battery unit have an internal battery charger?

Can the unit operate on an external battery?

Will the battery cables, etc. be flexible in cold weather?

Are they rubber or plastic covered?

Are the cable connectors of high quality, and easy to connect?

Is a 'demonstrator' available for a field check?

Is there an extensive warm-up time?

Can it be operated in the winter conditions you experience?

Is the operation simple or difficult?

Is the operating procedure easy to remember, and foolproof?

Is an extensive training course required to operate the instrument?

Would such a course be justified?

How long does the measurement cycle take?

Is a shorter measuring cycle worth the extra cost, if any?

Is the measurement cycle affected by beam interruptions?

Does the unit require special filters or attenuators for some distances?

Does the E.D.M. unit feature mechanical or electronic switching?

Are switches of good quality?

Do they feel 'right'?

When in use, does it meet the manufacturers' specifications?

Can the instrument be used for stake out work?

Can it be used for all phases of your work?

Can the unit be moved from station to station on the tripod, or must it be taken down each time?

Does it measure in feet or in metres?

Can it be converted, if necessary, in the future?

Can it measure in feet and metres?

Is there an audio target acquisition finder?

Are any extra features worth the extra dollars?

Are service facilities reasonably accessible?

Are 'loaner' instruments supplied?

Is service of high quality and fast?

Are repairs and adjustments guaranteed?

Suggested by, and based upon material supplied by Mr. H. Wylupski, of Keuffel and Esser, Lachine, Quebec.