Tinius Olsen

VEM 200 Series

LOW STRAIN

Video Extensometer Range

VEM200EN01

VEM 200 Series **LOW STRAIN**

Tinius Olsen's VEM 200 series of video extensometer modules is designed to measure low levels of strain from 0.01% in tensile, compression, shear and flexural modes. The units are fully integrated with the testing machine and result-reporting software, supporting multiple gauge length click-and-drag placements, strain rate control and real time results during and throughout the test.

The VEM 200-Series is directly compatible with all Tinius Olsen testing machine frames. It is mounted using a stabilised carbon fibre arm with built in X, Y and Z fine positioning adjustment for optimum measuring performance.

The unit can be mounted at the front or rear of a testing machine, left or right in support of operator comfort and efficiency of use. The extensometer on its mounting arm can be quickly moved away from the test area, allowing test specimens to be put into the test area and specimen grip system. When the specimen is ready, the extensometer is equally quickly swung back into place, locating precisely using the magnetic homing position – simple, precise and quick.

The built-in lighting strip ensures repeatability in tests irrespective of lab conditions yet requires no special light sources or red colours. It is simply controlled by the user adjusting intensity as required to ensure a stable light environment.

These versatile extensometer modules are available in a number of different performance configurations, each compatible with Tinius Olsen's Horizon and VSS materials testing software, whether Basic, Standard or Advanced.

The precise camera, lens and data acquisition technology delivers zero gauge length error every time and quick application of gauge marks, including for the measurement

A VEM 200-Series measuring live strain on a rigid plastic dumbell.

"Our Video Extensometer is perfect for precise, non-contact measurement of specimen strain"

VEM Ext. model	Maximum axial tensile strain range (%) at specified gauge length (mm)[1]			Maximum axial compressive strain range (%) at specified gauge length (mm)[1]			Maximum transverse gauge length (mm)[2]	Typical extension resolution (µm)[3]	Maximum test speed (mm/min)	Minimum specimen width for measurements (mm)		Field of view (mm)
	10	25	50	10	25	50				Axial	Transverse	
VEM-201	75	-	-	40	-	-	17	0.07	100	0.4	1.7	23 x 19
VEM-202	120	15	-	40	40	-	19	0.12	150	0.7	3.2	33 x 26
VEM-203	190	35	-	40	40	-	31	0.12	150	0.7	3.2	42 x 35
VEM-204	300	80	10	40	40	25	45	0.18	250	1.0	4.6	61 x 51
VEM-205	460	145	40	40	40	40	63	0.25	350	1.4	6.4	86 x 72
VEM-206	100	5	-	40	10	-	6	0.1	700	0.6	3.0	29 x 8
VEM-207	250	60	-	40	40	-	10	0.2	1300	1.1	5.0	52 x 14
VEM-208	390	120	25	40	40	40	15	0.3	1900	1.7	8.0	76 x 21
VEM-209	580	190	65	40	40	40	21	0.4	2600	2.4	11	107 x 30

of rotation (to track specimen alignment) during testing. Calibration is digitally embedded but, for extra reassurance, can be checked at any time using the standard traceable gauge block supplied.

For most applications a single VEM extensometer module is sufficient, but up to four extensometer modules can be synchronised and work together capturing four simultaneous events.

The VEM Video Extensometer is the future of extensometery simply because it improves productivity through speed of use, improves repeatability and aids traceability via the embedded strain data video stored as part of the results data set. In addition, there are no mechanical parts under strain when subjected to the release force at the specimen break point.

Key Features

- Non contacting video extensometer solution
- One extensometer measures in tension, compression, flexural, shear modes
- No need for bonded strain gauges or multiple clip on extensometers for r&n
- Supports axial, transverse, orthogonal and rotational measurements
- Provides a permanent record for recall of the test in video format with full resolution embedded strain data
- Meets the requirements of ISO 9513 class 0.5, ASTM E83 class B1 and GB/T 12160 class 0.5

A heavy-duty tripod is available to facilitate the use of VEM with legacy Tinius Olsen and other test machines

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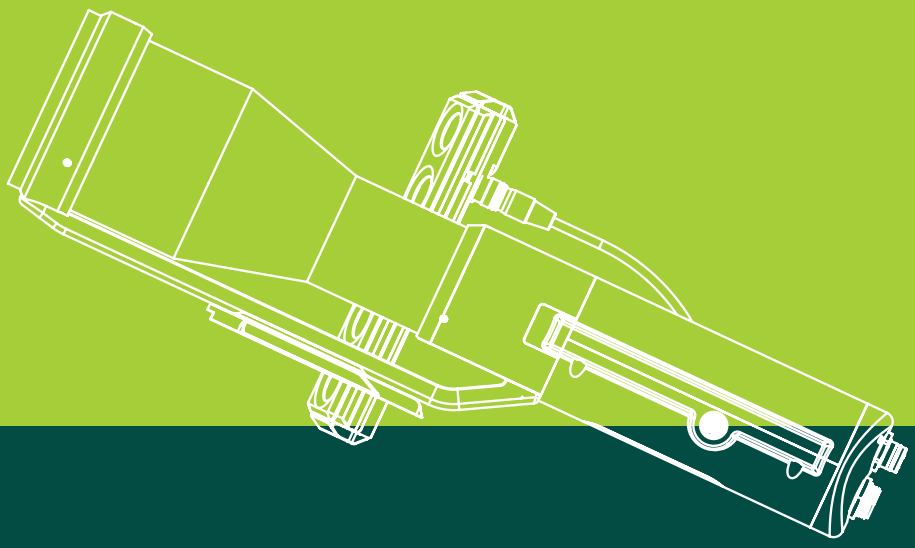
The first name in materials testing



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