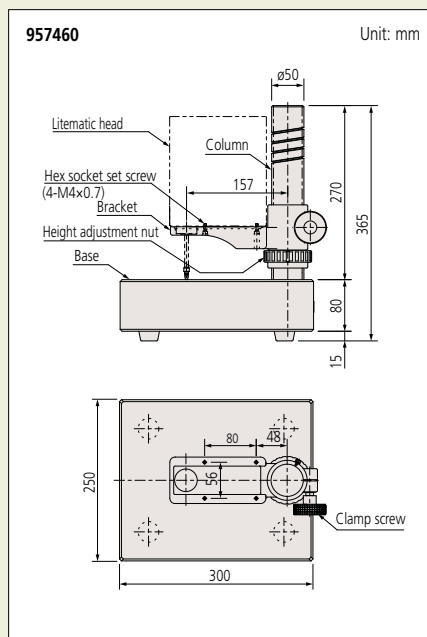


Optional Stand for VL-50S-B



Optional Accessories

- Foot switch: **937179T**
- Dedicated stand: **957460**\*1
- SPC cable (1 m): **936937**\*2
- SPC cable (2 m): **965014**\*2
- VL weight part: **02AZE375**\*3
- Recommended spare contact points:
  - Shell type: **101118** (Approx. 0.02 N)\*4
  - Carbide tipped spherical contact point,  $\phi 7.5$ : **120059** (Approx. 0.03 N)\*4
  - Carbide tipped spherical contact point,  $\phi 10.5$ : **120060** (Approx. 0.06 N)\*4
  - Carbide tipped needle contact point,  $\phi 0.45$ : **120066** (Approx. 0.01 N)\*4

\*1 Only **VL-50S** is available.  
 \*2 Refer to page G-18 for details of the RS link.  
 \*3 Not applicable to **VL-50-100-B** and **VL-50S-100-B**  
 \*4 Values in parentheses indicate the measuring force of a 0.01 N model fitted with the respective optional points

**VL-50-B/50S-B Litematic SERIES 318 — High-accuracy/resolution Measuring Machine**

- With a measuring force of only 0.01 N, the Litematic is ideal for measuring easily deformed workpieces or high-accuracy components.
- For workpieces for which 0.01 N is insufficient, either the 0.15 N or 1 N model is recommended.
- The motor-driven spindle moves up/down and stops when the contact point touches the workpiece. Then the maximum, minimum and runout values are measured under a constant force.
- High resolution of 0.01  $\mu\text{m}$ , and wide measuring range of 50 mm.
- Measuring system **VL-50-B**, integrated display type, and **VL-50S-B**, a separate display type, are available.
- The measuring table supplied with **VL-50-B** is ceramic, which is corrosion free, for easier maintenance and storage.
- The spindle is made of low thermal expansion material.



318-221



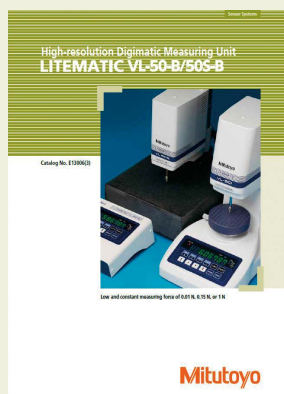
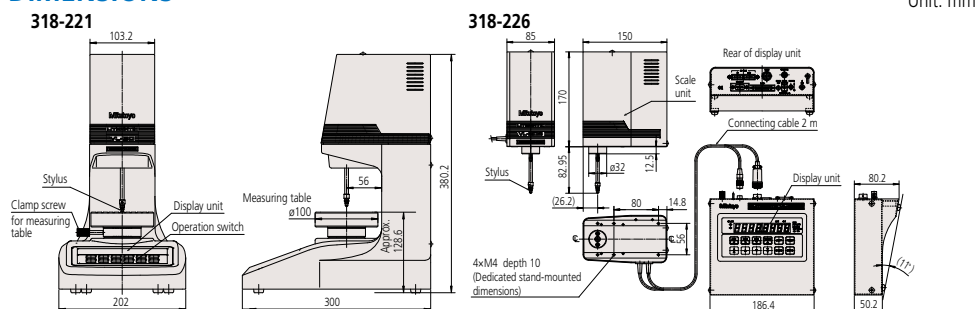
318-226

SPECIFICATIONS

Order No.	318-221*4	318-222*4	318-223*4	318-226*4	318-227*4	318-228*4
Model	VL-50-B	VL-50-15-B	VL-50-100-B	VL-50S-B	VL-50S-15-B	VL-50S-100-B
Measuring range	0 to 50 mm (0 to 2 in)					
Resolution	0.01/0.1/1.0 $\mu\text{m}$ (0.000005 in/0.00005 in/0.0005 in)					
Display unit	8 digits/14 mm (0.6 in) character height (without signs)					
Scale type	Reflection type linear encoder					
Stroke	51.5 mm (2 in) (when using a standard contact point)					
Measuring accuracy (20 °C)*1	(0.5 + L/100) $\mu\text{m}$ L=arbitrary measuring length (mm)					
Accuracy guaranteed temperature*2	20 $\pm$ 1 °C					
Repeatability*1	$\sigma$ =0.05 $\mu\text{m}$					
Measuring force*1	0.01 N	0.15 N*3	1 N*3	0.01 N	0.15 N*3	1 N*3
Feed speed	Approx. 2 mm/s (0.08 in/s) or 4 mm/s (0.16 in/s) (changeable by parameter)					
Measurement speed	Approx. 8 mm/s (0.3 in/s)					
Contact point	$\phi 3$ mm carbide tipped (fixing screw: M2.5 (P=0.45) $\times 5$ ), standard contact point: <b>901312</b>					
Measuring table	$\phi 100$ (ceramic, grooved, removable)					
Input	Foot switch input (when optional foot switch is used) External Control					
Output	Digimatic output/RS-232C output (changeable by parameter)					
Rating	Power supply: 85 to 264 V AC (depends on AC adapter)					
Power consumption	Max. 12 W (12 V, 1 A)					
Standard Accessories	AC adapter: <b>357651</b> , Grounding wire: <b>09CAA985</b> , AC cable (Japan): <b>02ZAA000</b> , AC cable (USA): <b>02ZAA010</b> , AC cable (EU): <b>02ZAA020</b> , AC cable (UK): <b>02ZAA030</b> , AC cable (China): <b>02ZAA040</b> , AC cable (Korea): <b>02ZAA050</b> Hex wrench (2 pcs. for fixing contact point and for removing fixing bracket)					

\*1 Normal measurement using standard contact point.  
 \*2 Under less temperature change, and hot or cold direct air flow should be avoided.  
 \*3 0.15 N, 1 N types are factory-installed option.  
 \*4 To denote your AC power cable add the following suffixes to the order No.: A for UL/CSA, D for CEE, DC for CCC, E for BS, F for SAA, K for KC, C and No suffix are required for PSE.  
 Note: Motor life is approximately 100,000 operations, after which replacement is advisable.  
 This maintenance factor is particularly important to bear in mind when the machine is used frequently, such as on a production line.

DIMENSIONS



Refer to the Litematic Brochure (E13006) for more details.