

## VibroFlex QTec®

The Polytec VibroFlex laser Doppler vibrometer is a modular high-performance solution for non-contact vibration measurement. It offers unrivalled measurement performance and versatility for solving pressing vibration issues in both R&D and industrial quality control.

The VibroFlex family comprises the front-end VibroFlex Connect and a selection of non-contact laser sensor heads. Integrated with the VibSoft data acquisition and analysis software, the vibration measurement system is ready to go. Study acoustics, dynamics and vibrations on nano to macro structures without contact and with laser precision.

The VibroFlex QTec® sensor head delivers the highest optical sensitivity, enabling high-fidelity measurements on all surfaces – even on dark, biological, rotating or moving objects. This safe laser technology is perfect for challenging applications such as NDT, biomedical, long distance displacement measurements, quasi-static displacement measurements and shaker feedback control. QTec® makes vibration measurements faster, easier and more reliable than ever – for the most robust, unambiguous results.

VibroFlex – the new flexibility of laser vibration measurement.



### Highlights

- Spare performance - SNR improvement up to 20 dB or a factor of 10
- Make use of every quantum of light for unparalleled optical sensitivity
- High-fidelity data with no surface preparation – even dark, biological or moving objects
- From  $\mu\text{m}$ -sized to large, distant objects
- No limits with a high dynamic range up to 30 m/s
- Fast remote and auto focus for best signal quality
- Match range and depth of field with interchangeable lenses

## VibroFlex QTec®

Powerful on all surfaces

Datasheet





# Options and accessories



## Optical accessories

VFX-O-SRI SR Front Lens (IR)

Short Range front lens for measuring at short working distances (highest depth of field).

VFX-O-LRI LR Front Lens (IR)

Long Range front lens for measuring at long working distances.



VFX-O-FMI-02 Fiber Lens (IR) 2 m

Flexible measurements with 2 m fiber cable on small objects or where space is restricted. Includes VFX-O-100 Mini Fiber Head, reference head for setup and VIB-A-CAS08 Transportation Case. When using the fiber lens, it is not possible to use QTEC's additional performance by reception diversity.



VFX-O-100 Mini Fiber Head

Small fiber head (10 mm diameter) with a laser spot size down to 28  $\mu\text{m}$  for VFX-O-FMI-02 Fiber Lens (IR) 2 m



VFX-O-110 Micro Spot Fiber Head

Small fiber head (24 mm diameter) with a laser spot size of 8  $\mu\text{m}$  for VFX-O-FMI-02 Fiber Lens (IR) 2 m



## Tripods

VIB-A-T02 Standard Tripod

Easy targeting on the object under test



## Positioning stages

VIB-A-P35  
4-Axes Precision Stage:  
XZ plus Tip-Tilt

XY-traverse stage featuring 18 mm travel with  $\pm 5^\circ$  pan/tilt function in both directions for positioning a single 10 mm outer diameter Mini Fiber Head.






VIB-A-P36  
Tip-Tilt Precision Stage

For positioning a single 10 mm outer diameter Mini Fiber Head. Travel range  $\pm 5^\circ$  in both directions.






### Positioning stages

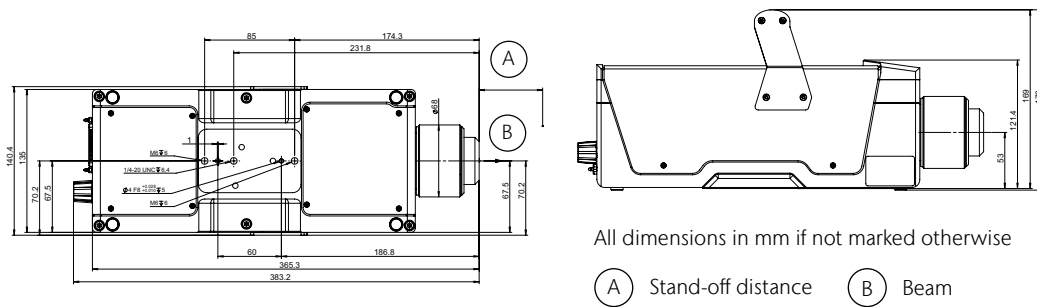
<p>VIB-A-P01 Tilt Stage</p>	<p>Allows fine adjustment of the sensor head by tilting. The tilt travel is <math>\pm 9^\circ</math>. Quick release plates to interface with VIB-A-T02 and VIB-A-T05 tripods are included.</p>	
<p>VIB-A-P02 2-Axes Stage: X plus Tilt</p>	<p>Allows fine adjustment of the sensor head in 2 axes. The travel of the traverse stage is 105 mm and the tilt travel is <math>\pm 9^\circ</math>. Quick release plates to interface with VIB-A-T02 and VIB-A-T05 tripods are included.</p>	
<p>VIB-A-P06 3-Axes Stage: XY plus Tilt</p>	<p>Allows fine adjustment of the sensor head in 3 axes. The travel of the x &amp; y traverse is 100 mm along and across laser beam and the tilt stage is <math>\pm 9^\circ</math>. Quick release plates to interface with VIB-A-T02 and VIB-A-T05 tripods are included.</p>	

### Transportation case

<p>VIB-A-CAS18 Transp. Case (VibroFlex QTec® VFX-I-160)</p>	<p>Robust transportation case for the sensor head</p>	 <p>picture similar</p>
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Polytec offers a wide range of accessories for setting up and performing measurements. Please contact your local vibrometer sales engineer or visit our website [www.polytec.com/vibroflex](http://www.polytec.com/vibroflex) for more detailed information.

### Dimensions



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