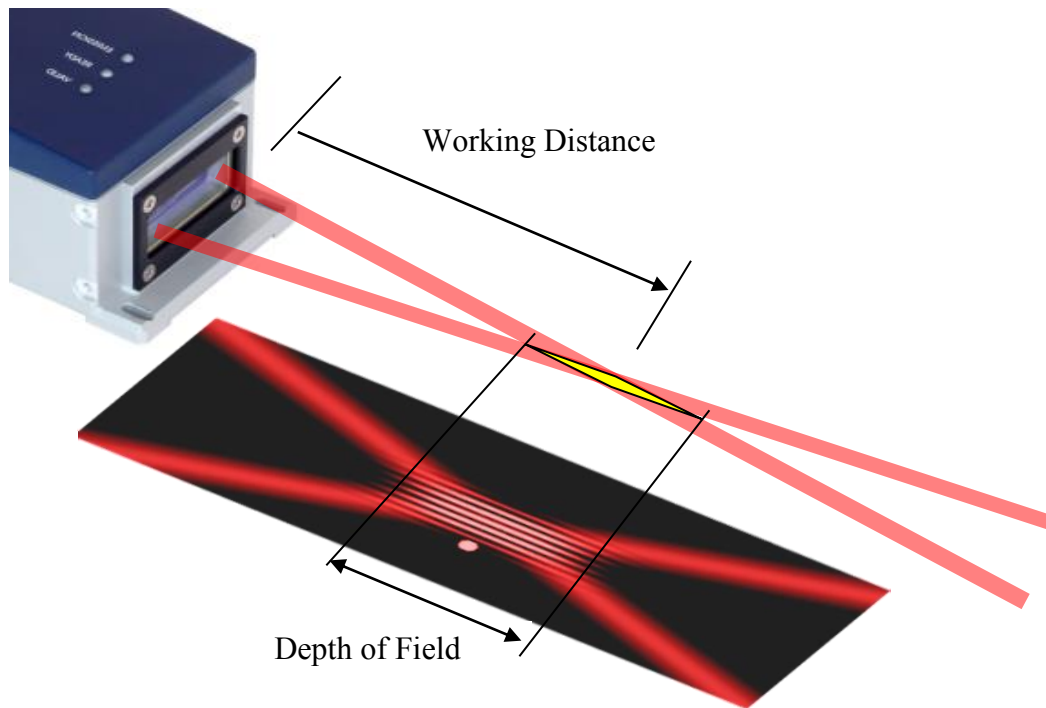
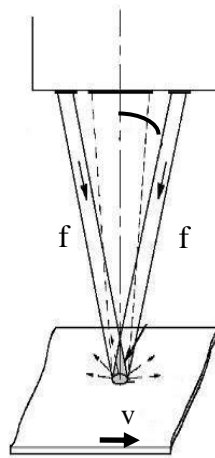


# 1) SENSOR PARAMETERS:

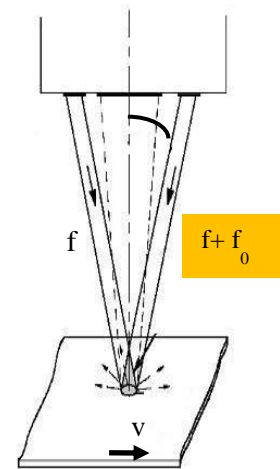


## Non-Shifted - Base System LSV1000 SYSTEMS:



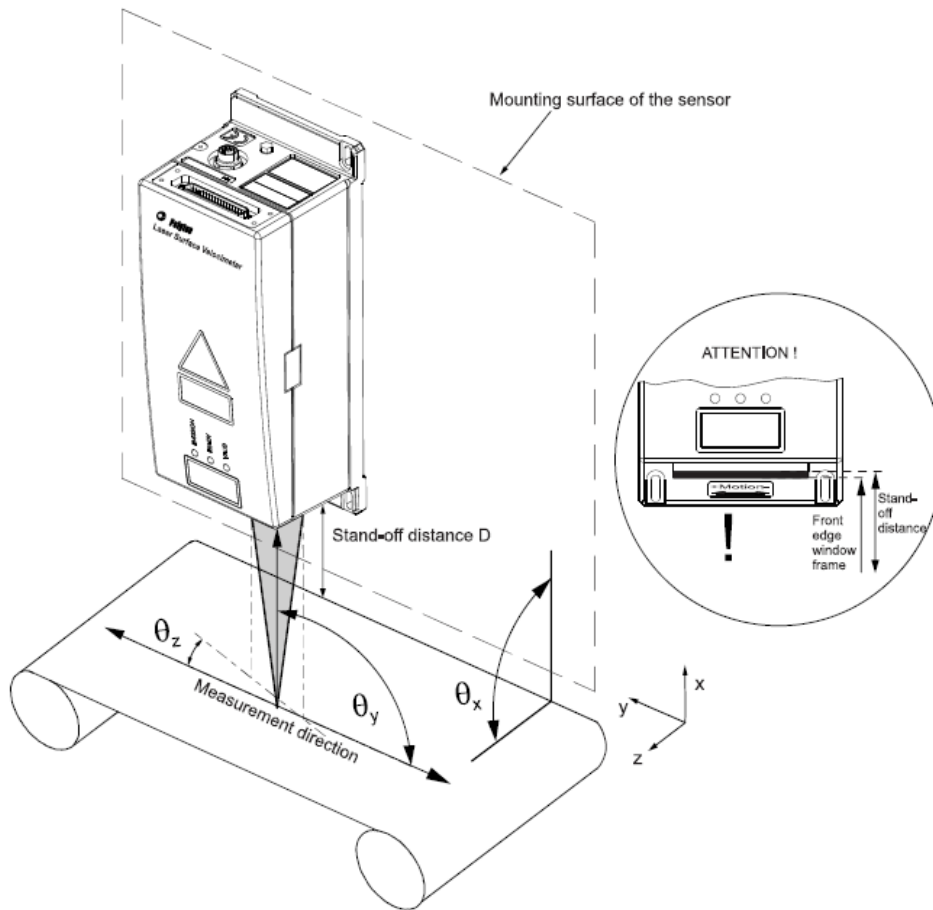
- Measures to a specified minimum velocity
- Positive Speed Only

## Frequency Shifted System LSV2000 & LSV2100 SYSTEMS:



- Measures to Zero Speed ( $v=0$ )
- Determines Direction
- Increased Optical Sensitivity

## 2) ALIGNING THE LSV SENSOR:



Angle	Target value	Error in %	Error at $\pm 1.3^\circ$	Error at $\pm 2^\circ$
$\theta_x$	$90^\circ \pm 5^\circ$	0	0	0
$\theta_y$	$90^\circ$	$(1 - \sin\theta_y) \cdot 100$	0,026%	0,061%
$\theta_z$	$0^\circ$	$(1 - \cos\theta_z) \cdot 100$	0,026%	0,061%

### 3) SENSOR SPECIFICATIONS\*: LSV1000 & LSV2000 Systems:

LSV 1000: Specifications:									
Visible Laser Diode: 690nm   25mW max.   Class 3B									
Working Distance (mm)	200mm	300mm	500mm	700mm	1000mm	1500mm			
Depth of Field (mm)	+/- 15	+/- 20	+/- 30	+/- 40	+/- 60	+/- 70			
Min Velocity (m/min)	0.3	0.53	0.8	1.05	1.43	2.11			
Max Velocity (m/min)	875	1535	2296	3058	4188	6211			
LSV 2000: Specifications:									
Visible Laser Diode: 658nm   25mW max.   Class 3B									
Working Distance (mm)		300mm	500mm	700mm	1000mm	1500mm	2000mm	2500mm	3000mm
Depth of Field (mm)		+/- 60	+/- 60	+/- 70	+/- 70	+/- 70	+/-100	+/-100	+/-100
Min...Max Velocity (m/min)		-7700...0...+7700					+/10,000	+/-12,300	+/-14,600
General Specifications									
Accuracy	+/- 0.05% of reading								
Repeatability	+/- 0.02% of reading								
Measurement Units	mm/s, mm/min, ft/s, ft/min (selectable)								
Output update rate	1024 / sec								
Standard Interfaces	Encoder Pulse: User Selectable; max 500kHz 24V status and control logic I/O Serial: RS-232 / RS422 Ethernet: LAN (TCP/IP or UDP) (10/100 mbit/s)								
Optional Interfaces (External)	Profibus/Profinet: Allen Bradley Specific Ethernet: Analog (voltage / Current)								
Dimensions (L x W x H)	300 x 120 x 110 mm								
Weight	4.3 kg								
Power Consumption	24V dc / max 15 W								
Operating Temperature Range	0 to 45 C								
Protection Class	IP66 & IP67 according to EN60529								

## LSV2100 SYSTEMS: Enhanced Connectivity Options

LSV 2100: Specifications: Visible Laser Diode: 658nm   25mW max.   Class 3B										
Working Distance (mm)		300mm	500mm	700mm	1000mm	1500mm	2000mm	2500mm	3000mm	
Depth of Field (mm)		+/- 60	+/- 60	+/- 70	+/- 70	+/- 70	+/-100	+/-100	+/-100	
Min...Max Velocity (m/min)		-7700...0...+7700					+/-10,000	+/-12,300	+/-14,600	
General Specifications										
Accuracy	+/- 0.05% of reading									
Repeatability	+/- 0.02% of reading									
Measurement Units	mm/s, mm/min, ft/s, ft/min (selectable)									
Output update rate	1024 / sec									
Standard Interfaces	Encoder Pulse: User Selectable; max 500kHz 24V status and control logic I/O <b>Enhanced Connectivity: Simultaneous Ethernet and Serial communication</b> <ul style="list-style-type: none"> <li>• Serial: RS422</li> <li>• Ethernet (LAN TCP/IP or UDP): Multi-User Ethernet (3) (10/100 Mbits/sec)</li> <li>• Web Interface</li> </ul>									
Optional Interfaces (External)	Profibus/Profinet: Allen Bradley Specific Ethernet: Analog (voltage / Current)									
Dimensions (L x W x H)	300 x 120 x 110 mm									
Weight	4.3 kg									
Power Consumption	24V dc / max 15 W									
Operating Temperature Range	0 to 45 C									
Protection Class	IP66 & IP67 according to EN60529									

\*Note: See data sheet for latest information