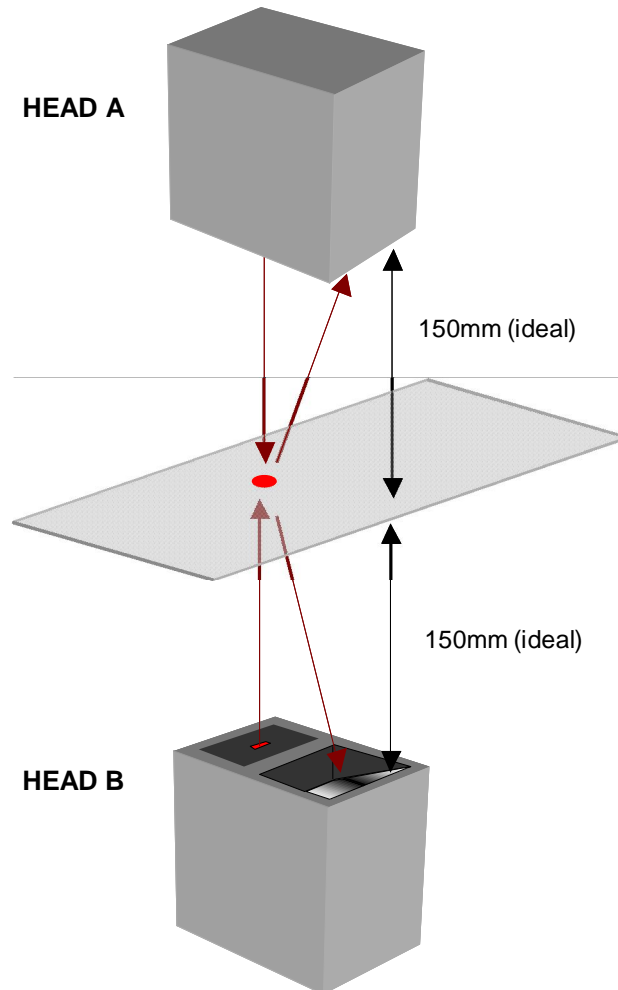


KEYENCE LK-G3001V - INSTALLATION



SENSOR HEADS

- Ø Sensors should be mounted APPROXIMATELY 150mm off the measurement surface. At 150mm the light is reflected back to the centre of the receiver lens
- Ø Sensors MUST be at right angles to the measurement surface
- Ø Sensor laser beams MUST point to the same point (above and below) the measurement surface. Use a piece of paper to see where both beams hit.
- Ø NOTE: the beam does not come out from the centre of the sensor
- Ø There MUST be a 30x50mm minimum gap for the beam to shine through and reflect. Else reflected laser light from interfering surfaces will effect the readings.
- Ø READINGS are VERY compromised when laser and reflector surfaces are even slightly dirty.
- Ø Head and cabling should be protected. These are very expensive sensors

CONTROL UNIT

- Ø The control panel requires a power source of 24Vdc 3A
- Ø The control panel front panel is detachable
- Ø The control unit requires adequate air gaps

KEYENCE LK-G3001V – FRONT PANEL USE

Stability led represents the quality of the head reading. Ideally green, amber is ok but red is.

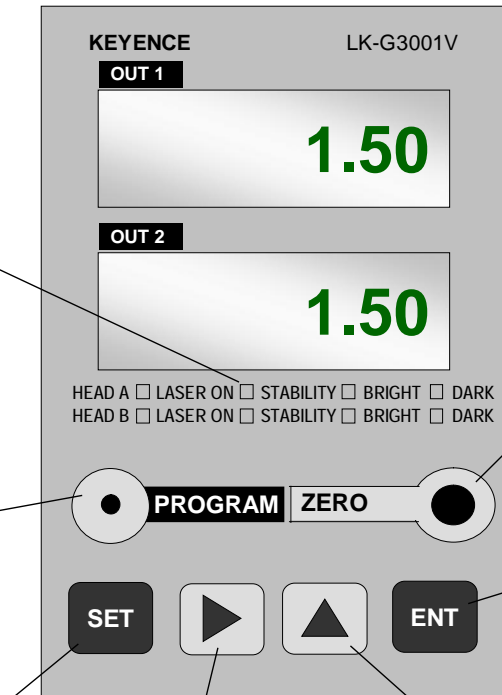
If red then the head lens may require cleaning or heads may need mechanical adjustment

Press this once to select a program number between 0 and 5

However: ONLY USE PROGRAM 0

Press and hold to change settings (on next page)

Press once to change limits (however these are not used)



Press this to “Zero” the reading to the offset value

The offset is 1.000mm so **only press** when there is 1.000mm material between the heads

Enter / Select

Scroll through setting “letters”

or
Shift to next digit

Change display – Show Out1, Out2 or both
or
Scroll through setting “options”
or
Change numeric value

KEYENCE LK-G3001V – SETTINGS

SETTINGS : PROGRAM 0

Head A	A	Able	Auto		
	b	Meas	Normal		
	C	Alarm	Count 8		
			Level 4		
	d	Able-t	Start / Stop		
	E	Mount	diFF-s		
Head B	same as Head A				
Out 1	A	Calc	Add-Ab		
	b	SCAL	A-imp	A1.inPT	1.0000
				A1.disp	1.0000
			B-imp	A1.inpt	1.0000
				A1.disp	1.0000
				1024	
	C	Filter	Avg		
	d	Hold	Normal		
	E	Trig	Trigger 1		
	F	Offset	1.0000		
G	deCPt	0.01 (G-0)			
H	A-Scal				
I	A-thru	Off			
Out 2	same as Out 1				
Option	A	Cycle	200µS		
	b	Alter	off		
	C	Sync	N-sync		
	d	o-Form	Normal		
	E	S-time	2		
	F	d-Str	off		
Env	A	rS232	19200		
			non		
			off		
	b	Change	Panel		
	C	Prg			
d	Lock	off			
E	Eco	off			

HOW TO

Calibrate Reading Press the **ZERO** button only when 1.000mm material is between the heads to set the displayed reading to 1.000mm

NOTE: This 1.000mm value is from the OUT1 / OUT2 F Offset setting value This can be changed for another thickness if required.

Change Setting Press and hold **SET** key

Press **UP** key to select between *HeadA / HeadB / Out1 / Out2 / Option / Env*

Press **ENT** key to select

Press **RIGHT** key to select letter

Press **ENT** to select

Press **UP** key to scroll through settings or **ENT** key to edit setting value

Change only the highlighted settings leave others to default

Initialise all To initialise settings to factory default hold ENT key while turning the power on to the unit. After display shows "init" press enter key again.

Panel Lock Enabling **Panel Lock** set **ENV – d – ON**

Disabling Panel Lock hold SET for 2 seconds and press the UP key to set to OFF followed by ENT.

KEYENCE LK-G3001V – DECADE CONNECTION & USE

Enable The material thickness feature has four settings in the **configuration** setup menu:

Sensor type: Keyence LK-G

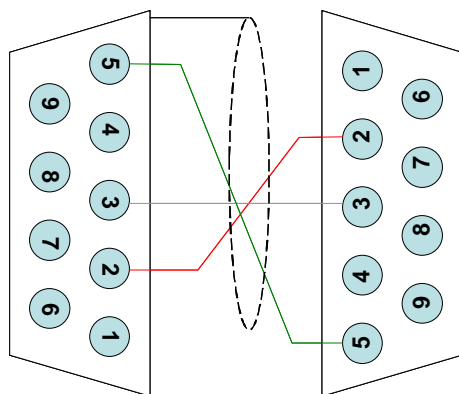
Baud Rate: 19200

Parity: Non

Stop Press if outside tolerance: Y /N

RS232 INTERCONNECTION LEAD

Rear 9way
D Plug (160)



Belden 8777 (1:1 extension
back to 160)

2=Red

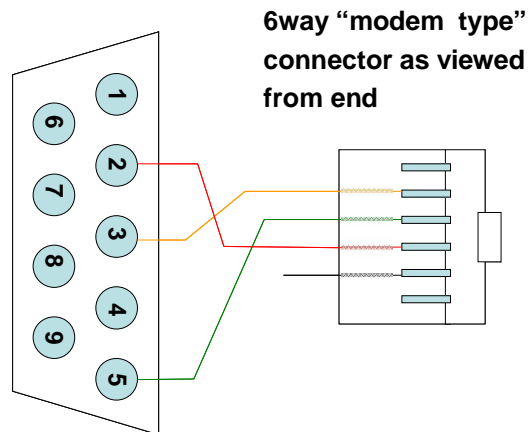
3=White

5=Green

Screen 160 end only

(Blacks not used)

Rear 9way
In-line D Socket



400m Lead (Flat 4way Cable)

NOTE!! Colours may vary

2=Red

3=Yellow

5=Green

(Black not used)

USER SETTINGS

Indication of Thickness

The material thickness indication appears only on the **Main** overview screen

The reading is updated 30 seconds after the press becomes stationary and every 30 seconds after that until the press is running again.

Tolerance Setting

The percentage tolerance limit can be changed in the Tool Details for each tool.

Data Logging

The material thickness is logged on the Decade MARS web system