Strip Width Gauge **WGL1000**

Strip width gauge using image processing technology

**2 Light Source Image Management**
- Reduce variation (error) due to changes in strip pass line
- Measurement range can be varied by changing the lens or adjusting the installation height of the sensor unit

**Installation above the strip**
- Flexible installation (all installation above strip)
- Easy maintenance due to accessibility
- Reduce adhesion of dirt in LED and sensor unit

**Measurement Principle**

The strip is illuminated using LED and the edge position is determined by using the average value.

The detected strip edge position value is compensated according to the pass line position of the strip as measured by the laser.
The system consists of LED light source for illumination, Sensor unit for detection of the strip and a specialize control panel with image processing unit for data analysis and I/O management. The sensor unit is connected to the specialize control panel using general purpose device net cable and LAN cable.

The system uses the laser triangulation method wherein it uses a capture camera image of projected line laser to detect the edge position and surface profile of the strip. This data is then translated into spatial axis (X,Z) using predetermined parameters. The measurement data for strip width and deviation can then be outputted to a level 2 computer.

**Equipment Configuration**

**Sensor Unit**
- Measurement Range: ±30mm
- Measurement Accuracy: ±0.4mm
- Applicable Material: Metal strip, others
- Laser Light Source: Type: Semiconductor laser, Wave length: 660nm, Output: 30mW and below, Laser Class: 3R
- LED Light Source: Output Rating: 40W, Cable length: 100m and below
- Operating Environment: Temp. Range: 0-40°C, Protection Class: IP54
- Approx. Weight: 11kg
- Size: H315 x W120 x D370

**Control Panel**
- Image Processing Unit: NIPU1000
- Measurement Cycle: 10ms
- No. of Sensor unit that can be connected: 2 (standard) Max: 4
- Touch Panel Display: Display range: 0-9999.9mm, Size: 10.5inch
- External I/F: Strip Width Output: Ether-net, Analog, Strip Deviation Output: Ether-net, Analog, Edge Height Output: Ether-net, I/O Contact: PIO
- Utility: Power Supply: AC100-440V, Current Rating: 1.5kVA
- Operating Environment: Temp. Range: 0-40°C, Protection Class: IP54
- Approx. Weight: 250kg
- Size: H1800 x W100 x D675