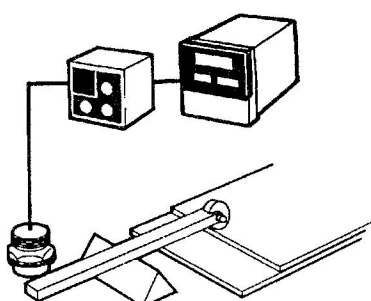


Transportation and others

42 Work Overlap Detection

Depending on the material the measurement distance varies. Instead of measuring the thickness of the work directly a see-saw is used to detect thickness and prevent overlapping.

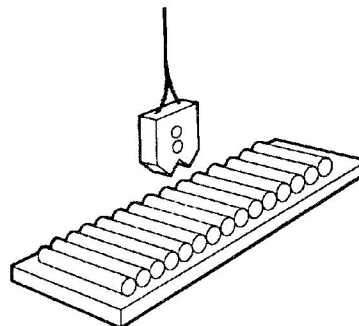


Detection Subject: Work

Linear Proximity Sensor E2CA
Linear Sensor Controller S3A2

43 Fiber Bundle Detection

The 1-mm diameter transparent fiber bundles are directly detected by the wafer sensor. It is also possible to count the number of fiber bundles.

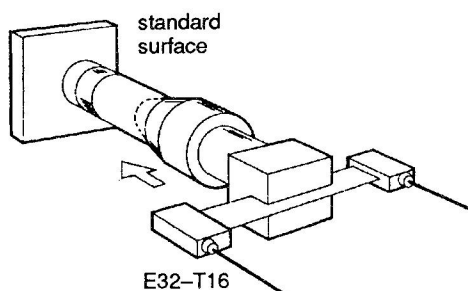


Detection Subject: Fiber Bundles

Fiber Unit E32-L25A
Amp Unit E3XR-CE4

44 Laminated Tube Length Inspection

The laminated tube's length is analog detected and measured by using an air cylinder and pressing it against a standard surface.

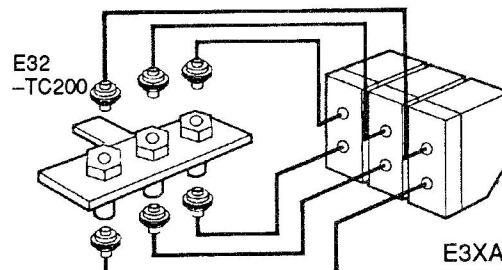


Detection Subject: Laminated Tube

Fiber Unit E32-T16
Amp Unit E3XA-CC4A

45 Nozzle Type Judgement

By using a fiber sensor and an analog amplifier, nozzles can be categorized according to their inner diameters though they may have exactly the same outer dimensions. The nozzles can be distinguished between when the sensor detects the analog volume of light passing through the hole of the nozzle.

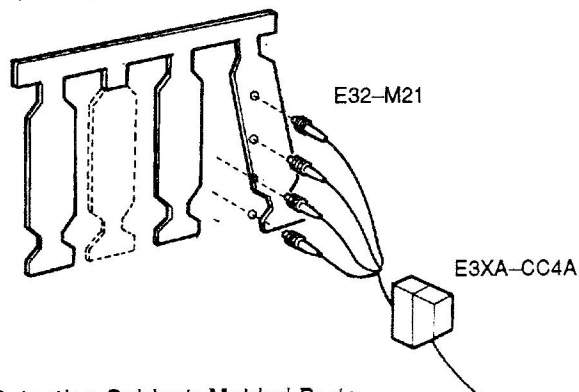


Detection Subject: Gas Pipe Nozzle

Fiber Unit E32-TC200
Amp Unit E3XA-CC4A

46 Molded Parts Presence/Curvature Inspection

Presence and shape of the parts is detected at four separate points, and an OK/NG decision made.

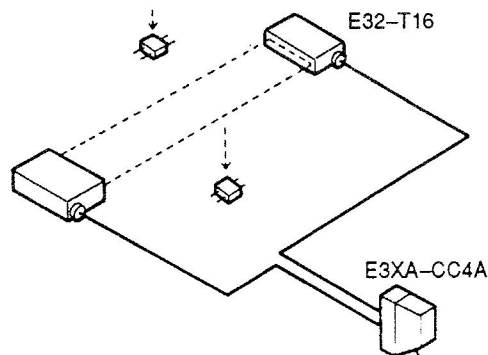


Detection Subject: Molded Parts

Fiber Opto Analog Sensor E32-M21 E3XA-CC4A

47 Chip Part Pass-by Detection

The parts (metallic or non-metallic) need not be in an accurate line for detection. As long as the parts are within a width of 10 mm, they can still be accurately detected.



Detection Subject: Chip Parts

Fiber Opto Analog Sensor E32-T16 E3XA-CC4A