



***Almega Friendly series II***

# **Laser Tracking Sensor** ***FD-QT***

**Automatically adjusts  
the torch position  
during welding!**



***Suitable for automating  
welding work  
for large structures!***

## Automatically adjusts the torch position during welding!

### Improved welding quality

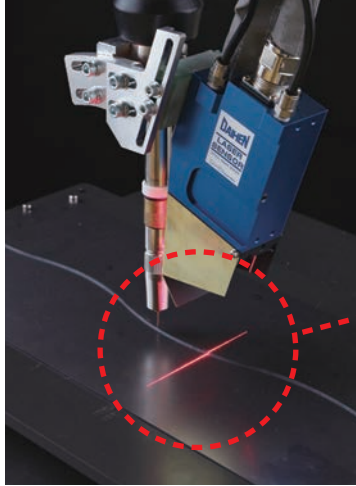
During welding, torch position, angle and welding conditions can be adjusted automatically based on the detected welding position and gap, to prevent faulty welding.

### Shorter teaching time

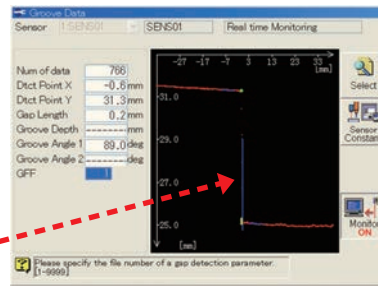
One teaching program suffices for parts of varying length as welding start and end points are automatically detected.

### Easy teaching

All operations can be performed from a teaching pendant. A PC is not required.



Detection status can be monitored from the teaching pendant!



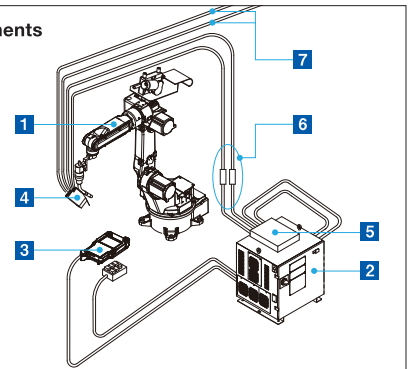
### [Basic Specifications (Sensor Head)]

Items	FD-QT
Measurement method	Synchronized laser triangulation
Standoff*2	82.5 mm
Measurement depth	65 mm
Measurement width	Near end: 23 mm Far end: 46 mm
Average resolution (Depth)	0.103 mm
Average resolution (Width)	Near end: 0.023 mm Far end: 0.040 mm
Measurement cycle (image/second)	50 images (Maximum)
Laser source	Visible red laser diode (Wavelength 660 nm)
Classification	Class 3B (Output 120 mW or less)
Dimensions (W x D x H)	215 (W) x 53 (D) x 89 (H) mm (including protrusions)
Weight	0.89 kg
Working ambient temperature	0 to +40°C
Working ambient humidity	20 to 85%RH (No condensation)
Cooling method*3,*4	Forced air cooling with dried air
Protection for optics	Air or welding gas purge and disposable lens

- \*1 Ask for pretesting to make sure this sensor can meet your requirements, before purchasing.
- \*2 The word "standoff" is the distance between the bottom of the sensor head and the near end of the measurement range.
- \*3 Use in combination with a water-cooled torch and/or high-current welding in narrow grooves may raise the ambient temperature of the sensor head more than the specified range. In this case, we suggest the water-cooling option. Ask for pretesting to check if this can work.
- \*4 Dried air (oil and mist-free) is required. When the air contains (oil) mist, use air filters. Mist in the cooling air can cause the product to malfunction.

### FD-QT Std. Components

No.	Items
1	Robot
2	Robot Controller
3	Teaching Pendant
4	Sensor Head
5	Sensor Controller
6	Sensor Cable
7	Air Tube



In accordance with DAIHEN's policy to make continuing improvements, design and/or specifications are subject to change without notice and without any obligation on the part of manufacturer.

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