CLAIMS

1. A laser distance measurement method in which a laser light is irradiated while scanning in a horizontal direction and in a vertical direction of a monitoring range, reflected light of the laser light is received and received light information is obtained, and distance information of a target object in the monitoring range is calculated from the received light information, wherein

a reference value N which defines the number of pieces of reflected light is set in accordance with an environment of the monitoring range;

if a plurality of pieces of the reflected light are received from the same laser light,

without determining whether a plurality of pieces of the reflected light are reflected light of the target object or reflected light of a foreign substance, and

if the number of pieces of the reflected light is less than the reference value N, the reflected light received last is considered to be the reflected light from the target object, and only the distance information thereof is calculated; and

if the number of pieces of the reflected light is not less than the reference value N, the reflected light received at the N-th time is considered to be the reflected light from the target object, and only the distance information thereof is calculated.

2. The laser distance measurement method according to claim 1, wherein the reference value N is 2 or 3.

3. A laser distance measurement device which scans and irradiates a laser light in a horizontal direction and in a vertical direction of a monitoring range, receives reflected light of the laser light and obtains received light information and calculates distance

information of a target object in the monitoring range from the received light information, comprising:

a light projecting portion which receives a light projection signal and projects the laser light;

horizontal scanning means for scanning the laser light in the horizontal direction;

vertical scanning means for scanning the laser light in the vertical direction;

a light receiving portion for receiving the reflected light of the laser light and transmitting a light reception signal;

a time measuring portion for calculating a time difference between light projection of the laser light and light reception of the reflected light from the light projection signal and the light reception signal and transmitting the received light information; and

a signal processing portion for calculating the distance information of the target object from the received light information, wherein

if a plurality of pieces of the reflected light are received from the same laser light, without determining whether a plurality of pieces of the reflected light are reflected light of the target object or reflected light of a foreign substance, the signal processing portion refers to a reference value N which defines the number of pieces of reflected light set in advance in accordance with an environment of the monitoring range, and if the number of pieces of the reflected light is less than the reference value N, the signal processing portion considers the reflected light received last to be the reflected light from the target object and calculates only the distance information thereof, and if the number of pieces of the reflected light is not less than the reference value N, the signal processing portion considers the reflected light received at the N-th time to be the reflected light from the target object and calculates only the distance information thereof.

4. The laser distance measurement device according to claim 3, wherein the reference value N is 2 or 3.

5. The laser distance measurement device according to claim 3, wherein

the signal processing portion determines that the received light information in which angle information of the horizontal scanning means matches angle information of the vertical scanning means to be the reflected light from the same laser light.