

system (optical communication code-transmitter system) in order to eliminate false fire alarms. The results are the following:

1) The conventional automatic fire detection system (RS-485 code-transmitter system) generated the 10, 200, 1200, and 2400 mV of noise level for the communication distances at 0, 1, 40, and 80 m, respectively and increased noise level with the increase of the communication distance.

2) However, the newly developed optical communication code-transmitter system did not generate any noise at all four different distances.

Therefore, the optical communication code-transmitter system is the ideal system to remove the false fire alarm in the automatic fire detection system.

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