# Philtec Application Note

## Long Fiberoptic Cables

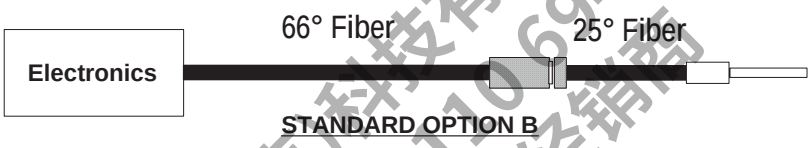
Glass fibers having light beam spreads of 25, 30 and 66° are used to produce Philtec sensors. The narrower beams give longer operating ranges.

- The standard cable length is 3 feet (914 mm).
- 25° fiber can be used with continuous lengths up to 10 feet.
- 30° fiber can be used with continuous lengths up to 29 feet.
- 66° fiber can be used with continuous lengths up to 49 feet.

*Note: Specifications for light beam spread are given in the Product Data Sheets for each model sensor.*

### *OPTIONS*

Applications of 25° fiber, such as the model D171, can be extended to long lengths by using Option B. 66° fiber is used for the long run from the amplifier to an in-line connector. The high loss 25° fiber is used for a short run from the connector to the sensor tip.




NOTES

1. Sensors with the longest cables have 2x higher noise levels.
2. Please consult the factory when combining Options B,E and/or H.

***Long Cables.*** This table shows the longest continuous cables that can be provided.

| Maximum Continuous Cable Length | | | | | | |
|---|---|---|---|---|---|---|
| *Model* | *Feet* | *Meters* | | *Model* | *Feet* | *Meters* |
| D6 | 29.5 | 9 | | RC12 | 29.5 | 9 |
| D12 | 29.5 | 9 | | RC20 | 49.5 | 15 |
| D20 | 49.5 | 15 | | RC25 | 49.5 | 15 |
| D21 | 29.5 | 9 | | RC60 | 49.5 | 15 |
| D47 | 29.5 | 9 | | RC62 | 49.5 | 15 |
| D63 | 49.5 | 15 | | RC63 | 29.5 | 9 |
| D64 | 29.5 | 9 | | RC90 | 10 | 3 |
| D100 | 29.5 | 9 | | RC100 | 29.5 | 9 |
| D125 | 29.5 | 9 | | RC140 | 49.5 | 15 |
| D169 | 29.5 | 9 | | RC171 | 10 | 3 |
| D170 | 10 | 3 | | RC190 | 10 | 3 |
| D171 | 10 | 3 | | | | |