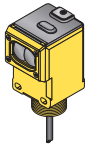


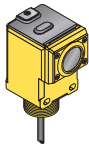
These diffuse-mode models detect objects by sensing the reflection of their own emitted light. Ideal for use when the reflectivity and profile of the object to be sensed are sufficient to return a large percentage of emitted light back to the sensor. Model Q45BB6DX is the first choice for diffuse-mode applications when there are no background objects to falsely return light.



## Q45BB6 Series Diffuse-Mode Models

| Models      | Range           | Cable                  | Supply Voltage | Output Type        | Excess Gain                                          | Beam Pattern              |
|-------------|-----------------|------------------------|----------------|--------------------|------------------------------------------------------|---------------------------|
|             |                 |                        |                |                    | Performance based on 90% reflectance white test card |                           |
| Short Range |                 |                        |                |                    | <br>Q45D<br>Diffuse Mode                             | <br>Q45D<br>Diffuse Mode  |
| Q45BB6D     | 450 mm<br>(18") | 4-wire<br>2 m (6.5')   | 10 to 30V dc   | Bipolar<br>NPN/PNP |                                                      |                           |
| Q45BB6DQ    |                 | 4-Pin<br>Mini-style QD |                |                    |                                                      |                           |
| Q45BB6DQ5   |                 | 4-Pin<br>Euro-style QD |                |                    |                                                      |                           |
| Long Range  |                 |                        |                |                    | <br>Q45DL<br>Diffuse Mode                            | <br>Q45DL<br>Diffuse Mode |
| Q45BB6DL    | 1.8 m<br>(6')   | 4-wire<br>2 m (6.5')   | 10 to 30V dc   | Bipolar<br>NPN/PNP |                                                      |                           |
| Q45BB6DLQ   |                 | 4-Pin<br>Mini-style QD |                |                    |                                                      |                           |
| Q45BB6DLQ5  |                 | 4-Pin<br>Euro-style QD |                |                    |                                                      |                           |
| High Power  |                 |                        |                |                    | <br>Q45DX<br>Diffuse Mode                            | <br>Q45DX<br>Diffuse Mode |
| Q45BB6DX    | 3 m<br>(10')    | 4-wire<br>2 m (6.5')   | 10 to 30V dc   | Bipolar<br>NPN/PNP |                                                      |                           |
| Q45BB6DXQ   |                 | 4-Pin<br>Mini-style QD |                |                    |                                                      |                           |
| Q45BB6DXQ5  |                 | 4-Pin<br>Euro-style QD |                |                    |                                                      |                           |

# Q45BB6 Series



These sensors are ideal for reflective sensing of very small parts or profiles, and can accurately sense the position of parts approaching from the side. Will ignore all but highly reflective objects that are outside the sensing range.



Visible red. 680 nm

## Q45BB6 Series Convergent-Mode Models

| Models                                                              | Focus                                                            | Cable                                                                      | Supply Voltage | Output Type     | Excess Gain                                          | Beam Pattern |
|---------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------|----------------|-----------------|------------------------------------------------------|--------------|
|                                                                     |                                                                  |                                                                            |                |                 | Performance based on 90% reflectance white test card |              |
| <b>Q45BB6CV</b><br><br><b>Q45BB6CVQ</b><br><br><b>Q45BB6CVQ5</b>    | 38 mm (1.5")<br><br><b>Spot Size at Focus:</b><br>1.3 mm (0.05") | 4-wire<br>2 m (6.5')<br><br>4-Pin Mini-style QD<br><br>4-Pin Euro-style QD | 10 to 30V dc   | Bipolar NPN/PNP |                                                      |              |
| <b>Q45BB6CV4</b><br><br><b>Q45BB6CV4Q</b><br><br><b>Q45BB6CV4Q5</b> | 100 mm (4")<br><br><b>Spot Size at Focus:</b><br>1.5 mm (0.06")  | 4-wire<br>2 m (6.5')<br><br>4-Pin Mini-style QD<br><br>4-Pin Euro-style QD | 10 to 30V dc   | Bipolar NPN/PNP |                                                      |              |

### NOTES:

- 9 m (30') cables are available by adding suffix "W/30" to the model number of any cabled sensor (e.g., **Q45BB6CV W/30**)
- A model with a QD connector requires a mating cable; see page 10.