

	Plano-Convex Lens	Polarizing Filter	Air Shield	Lens
Application	for all BOS 18-diffuse for background suppression and small parts detection	only for BOS 18M-...-1RD-...	for BOS 12/BOS 18 for 4 mm I. D. tube	for BKT and BLT for increasing range
Ordering code	BOS 18-PK-1	BOS 18-PF-1	BOS 1_-LT-1	BKT M-PK-1

- Advantages:
- Adjustable range 0...40 mm
 - Minimal switch point shift, e. g. when sensing different colors or different surface textures
 - Background suppression for sensing objects in front of reflective background
 - Small parts detection down to 0.05 mm using focussing plano-convex lens at a working range of ca. 0...13 mm.

Housing: PA 6
Plano-convex lens:
glass

To reliably sense very shiny objects a polarizing filter is used. This prevents spurious switching. Reflecting or shiny parts will then not cause undesired switching. The polarizing filters ensure that only the light returned from the reflector is detected. This does reduce the effective range by 50 %.

Housing: PA 6
Polarizing filter:
IR polarizing filter

The air shield with a compressed air source prevents premature contamination of the optics.

	BOS 12-LT-1	BOS 18-LT-1
A	M12x1	M18x1
B	14	15
C	25	30
D	14	22

Using the supplementary lens increases the range of the BKT from 9 mm to 18 mm. This corresponds to a working range of 15...30 mm when using with the BLT.

