



MINI DL SERIES

- Close range background suppression
- Detects objects of any colour, size, or shape, but ignores background
- Light-on, Dark on Switchable
- Response time 0.35ms
- IP67 sealed
- NPN or PNP types available



TECHNICAL SPECIFICATION

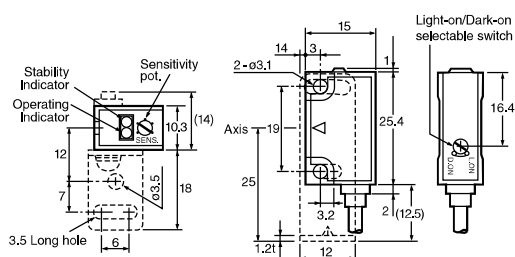
| Type No. | DL-S5-NPN/PNP | DL-S5R-NPN/PNP | DL-S10R-NPN/PNP | DL-S20-NPN/PNP | GR100R-NPN/PNP |
|------------------------|--|-----------------|---------------------------|-----------------------|-----------------|
| Detection method | Convergent beam | | | | Colour mark |
| Range | 50mm* | 50mm* | 100mm** | 200mm** | 100mm |
| Power supply | 12-24VDC +/- 10% Max ripple 10% | | | | |
| Current cons | 27mA max | | 30mA max | | 25mA max |
| Operating mode | Light on/Dark on selectable by switch | | | | |
| Output rating | NPN/PNP open collector 100mA at 30VDC*** | | | | |
| Alarm rating | NPN/PNP open collector 50mA at 30VDC*** | | | | |
| Protection | short circuit protection (output only) | | | | |
| Response time | 0.35msec | | | | |
| Light source | Infra red LED (880nm) | Red LED (700nm) | Red LED (700nm) | Infra red LED (880nm) | Red LED (700nm) |
| LED indication | Output red LED : Stability green LED | | | | |
| Sensitivity adjustment | By potentiometer | | | | |
| Housing | Polycarbonate sealed to IP67 | | | | |
| Cable | 4 x 0.15mm, 2m long, Ø 3mm | | 4 x 0.2mm, 2m long, Ø 4mm | | |
| Ambient light | 5000 lux max | | | | 3000 lux max |
| Operating temp. | -25 to +55 ° C | | | | -10 to +55 ° C |
| Humidity | Withstands 85% RH | | | | |

* 50 x 50mm white paper with sensitivity set to max. ** 100 x 100mm white paper with sensitivity set to max.
*** PNP types do not have stability output.

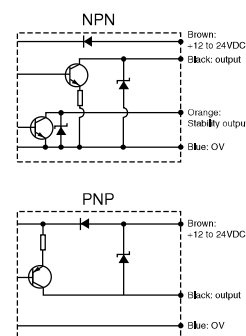
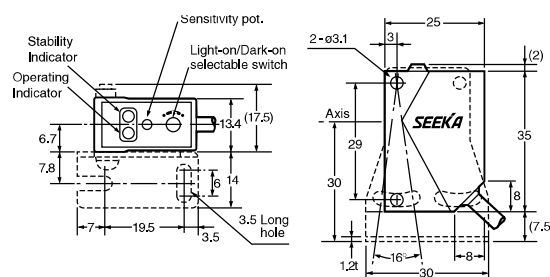
DIMENSIONS

CONNECTION

DL-S5/DL-S5R



DLS10R/DL-S20/GR100R



ORDERING GUIDE

| Output | Type Number | Description |
|------------|--|-------------|
| DLS5-NPN | Convergent beam, infra red light source, 50mm range | NPN |
| DLS5-PNP | Convergent beam, infra red light source, 50mm range | PNP |
| DLS5R-NPN | Convergent beam, red light source, 50mm range | NPN |
| DLS5R-PNP | Convergent beam, red light source, 50mm range | PNP |
| DLS10R-NPN | Convergent beam, red light source, 100mm range | NPN |
| DLS10R-PNP | Convergent beam, red light source, 100mm range | PNP |
| DLS20-NPN | Convergent beam, infra red light source, 200mm range | NPN |
| DLS20-PNP | Convergent beam, infra red light source, 200mm range | PNP |
| GR100R-NPN | Colour mark sensor, red light source, 100mm range | NPN |
| GR100R-PNP | Colour mark sensor, red light source, 100mm range | PNP |