

Comparison sheet for DLN series and DL(DN)-S series: Short range

■ Detecting distance, environmental specification and the outer dimension are same between the three series.

(Difference points are written in red.)

	New DLN series	DN-S10 series ※discontinued	DL-S3/4/5 series ※discontinued
Model	<p>●NPN/PNP dual output models</p> <p>◎Primary output (black): NPN (Secondary output (white): PNP)</p> <p>DLN-S3RV/DLN-S3RV-J DLN-S4RV/DLN-S4RV-J DLN-S5RV/DLN-S5RV-J DLN-S10RV/DLN-S10RV-J</p> <p>◎Primary output (black): PNP (Secondary output (white): NPN)</p> <p>DLN-S3RVP/DLN-S3RVP-J DLN-S4RVP/DLN-S4RVP-J DLN-S5RVP/DLN-S5RVP-J DLN-S10RVP/DLN-S10RVP-J</p>	<p>●NPN output model</p> <p>DN-S10R(red)/DN-S10R-J(red)</p> <p>●PNP output model</p> <p>DN-S10RPN(red)/DN-S10PN-J(red)</p>	<p>●NPN output model</p> <p>DL-S3R (red)/DL-S3 (infrared) DL-S4R (red)/DL-S4 (infrared) DL-S5R (red)/DL-S5 (infrared)</p> <p>●PNP output model</p> <p>DL-S3RPN (red)/DL-S3PN (infrared) DL-S4RPN (red)/DL-S4PN (infrared) DL-S5RPN (red)/DL-S5PN (infrared)</p>
Detection distance ※50×50mm white paper	DLN-S3□□□□=10 to 30mm DLN-S4□□□□=10 to 40mm DLN-S5□□□□=10 to 50mm DLN-S10□□□□=10 to 100mm	DN-S10□□□□=10 to 100mm	DL-S3□□□□=10 to 30mm DL-S4□□□□=10 to 40mm DL-S5□□□□=10 to 50mm
Setting distance ※50×50mm white paper	DLN-S3□□□□=24 to 30mm DLN-S4□□□□=30 to 40mm DLN-S5□□□□=40 to 50mm DLN-S10□□□□=30 to 100mm	DN-S10□□□□=30 to 100mm	Between 80 to 100% of the detection distance
Power supply	12V~24VDC Class 2 ripple 10% or less	12V~24VDC ±10%, ripple 10% or less	12V~24VDC ±10%, ripple 10% or less
Current consumption	16mA or less (18mA for DLN-S10RV)	NPN output model: 33mA or less PNP output model: 39mA or less	NPN output model: 27mA or less PNP output model: 35mA or less
Detection mode	BGS/FGS dual mode (switchable)	BGS	BGS
Operation mode	Light ON/Dark ON selectable	Light ON/Dark ON selectable	Light ON/Dark ON selectable
Output mode	NPN/PNP open collector dual outputs (Both NPN and PNP primary output models are available)	NPN open collector output model or PNP open collector output model	NPN open collector output model or PNP open collector output model
Stability output	N.A.	N.A.	Equipped only with NPN output model
Light source	Four-element (AlGaInP) LED (860nm)	Red LED (700nm) Red LED (880nm)	Red LED (700nm) Red LED (880nm)
Response time	0.5 ms	0.5 ms	0.35 ms
Hysteresis	5% or less	10% or less	5% or less
Indicators	Operation indicator: Orange LED Stability indicator: Green LED	Operation indicator: Orange LED Stability indicator: Green LED	Operation indicator: Orange LED Stability indicator: Green LED
Distance setting	5-turn potentiometer, shift lens	4.5-turn potentiometer, shift lens	Potentiometer (minus 20% electrical), fixed lens
Protection circuit	Output short-circuit, power reverse connection, surge protection	Output short-circuit, power reverse connection, surge protection	Output short-circuit, power reverse connection
Anti interference	Automatic interference prevention (up to 2 units)	N.A.	N.A.
Material	Housing: PBT, Lens: Polycarbonate	Housing: PBT, Lens: Methacryl	Housing and lens: Polyarylate
Weight	Attached cable (2m): approx. 32g Attached cable (5m): approx. 74g M8 connector: 6g	Attached cable (2m): approx. 50g M8 connector: 8g	Approx. 50g
Connection	Attached cable (outer diameter φ3.0mm) 0.15mmφ x 4 cores, 2m and 5m (model number followed by Y-05) M8 4 pin connector (model number followed by -J)	Attached cable (outer diameter φ3.0mm), 2m M8 4 pin connector (model number followed by -J)	Attached cable (outer diameter φ3.0mm), 2m
Accessories	Screw driver (mounting bracket and M8 connector cable are separately sold)	Screw driver and mounting bracket	Screw driver and mounting bracket
Dimensions	<p>Attached cable type</p> <p>M8 connector type</p>		