

DOAL-50-LED Series provides diffuse illumination in the same optical axis as the camera. The DOAL is designed for applications that have flat specular surfaces requiring uniform lighting. With the DOAL, light rays reflect off the beam splitter directly on to the object at nearly 90°. This lighting technique helps bring out surface textures, elevation changes and translucent features.

NEW! See the [DOAL-50 "V2" Series](#) for higher output, fan-free models suitable for use in clean-room environments.



MODEL #	DESCRIPTION
010-200700	DOAL-50, R LED-D, 12V-C
010-200702	DOAL-50, R LED-D, 12V-C w/dust cover
010-200701	DOAL-50, R LED-D, 24V-S
010-205301	DOAL-50 <i>plus</i> , R LED-D, 12V-C
010-205800	DOAL-50, I LED-D, 12V-C
010-202900	DOAL-50, B LED-D, 12V-C
010-202901	DOAL-50, B LED-D, 24V-S
010-202800	DOAL-50, W LED-D, 12V-C
010-202801	DOAL-50, W LED-D, 24V-S
010-202804	DOAL-50, W LED-D, 24V-C w/"Flying Leads"
010-202807	DOAL-50, W LED-D, 24V-C w/9 pin D-sub. & A/R Shield
010-206600	DOAL-50, R LED-D, 24V-C w/9 pin D-sub.
010-206603	DOAL-50, R LED-D, 24V-C w/9 pin D-sub. & A/R Shield
010-206601	DOAL-50, R LED-D, 24V-C w/"Flying Leads"
010-206602	DOAL-50, R LED-D, 24V-C w/"Flying Leads" & A/R Shield

Description Key

Example: **DOAL-xx, R LED-D, 12V-C**

Family Designation	Color:	Source:	Voltage (DC):
Aperture (mm - approx.)	R = Red W = White B = Blue G = Green I = Infrared U = Ultraviolet	FO = Fiber Optic FL = Fluorescent LED = Light Emitting Diode	C = Continuous S = Strobe
			Delivery: D = Diffused ND = Non-Diffused F = Focussed

MECHANICAL:

L x W x H (mm/in.):

107.1mm x 57.2mm x 52.4mm
(4.22 in. x 2.25 in. x 2.06 in.)

Mounting:

Housing Material:

Seven (7) M6 x 1.0 x 9.5

Weight:

Black Anodized Aluminum
454 grams (16 oz.)

ENVIRONMENTAL:

Max. Operating Humidity

95% non-condensing

Operating Temp.

40° C (104° F)

Storage Temp.

50° C (122° F)

ILLUMINATION & ELECTRICAL:

Lighting Technique:

Diffuse On-Axis

Light Aperture:

50 mm x 50 mm (2 in. x 2 in.)

Field Of View x Stand-Off:

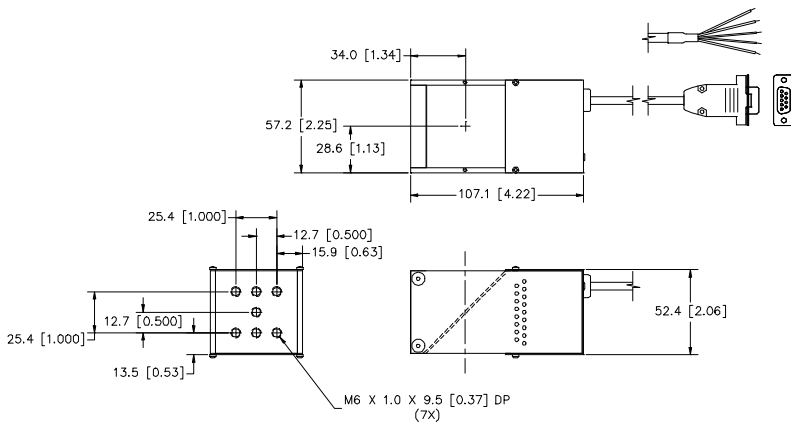
25 mm x 25 mm (1 in. x 1 in.)

Light Characteristics:

Source	Color (nm)	Exp. Life	Voltage/Current (max.)		
			12V-C	24V-C	24V-S
LED	Red (636)	60k hrs.	435 mA	240 mA	3.2 A pk.
LED	Red <i>plus</i> (660)	50k hrs.	454 mA	n/a	n/a
LED	White - 6500 Kelvin	10k hrs.	580 mA	400 mA	4.4 A pk.
LED	Blue (470)	10k hrs.	580 mA	n/a	4.4 A pk.
LED	Infrared (940)	50k hrs.	435 mA	240 mA	3.2 A pk.

CE Conformity:

Yes



ACCESSORIES:

Part #	Description	Models Used On
010-901900	SCM-2, 2 Channel Strobe Cntrl.	24V-S
010-501402	CPS-24, 24VDC, US cord	24V-S ¹
010-501401	CPS-24, 24VDC, EU cord	24V-S ¹
010-502601	CPS-24T, 24VDC US w/9-pin D-sub	24V-C & 24V-S ^{1,2}
010-502602	CPS-24T, 24VDC EU w/9-pin D-sub	24V-C & 24V-S ^{1,2}
010-500301	CPS-12 3.5A, 12VDC, US Cord	12V-C
010-500303	CPS-12 3.5A, 12VDC, EU Cord	12V-C
010-502700	ICM-1, M/D Intensity Cntrl, 12V-C	12V-C
010-502701	ICM-1, M/D Intensity Cntrl, 24V-C	24V-C ²
010-502702	SCM-1, 1 Channel M/D Strobe Cntrl.	24V-S
010-501200	VPS, Variable, US Cord	12V-C
010-501201	VPS-EU, Variable, EU Cord	12V-C
030-003700	Ext. Cable, Cont., 1.8 M (6 ft.)	12V-C
030-003701	Ext. Cable, Cont., 3.0 M (10 ft.)	12V-C
030-007006	Ext. Cable, Strobe, 1.8 M (6 ft.)	24V-S
030-007010	Ext. Cable, Strobe, 3.0 M (10 ft.)	24V-S
030-006900	Y cable, 2 Lights, 9 pin D-sub Strb.	24V-S
030-003601	Y cable, 2 Lights, 9 pin D-sub Cont.	12V-C & 24V-C

¹ 010-50140x used only with 010-901900;

010-50260x used with either 010-502702 or 24V-C lights with DB-9 connectors

² 24V-C accessories are not available for "Flying Leads" configurations

CABLES/CONNECTORS:

	Connector	Length	Pin#	1	2	3	4	5	6	7	8	9
12V-C Models	9 pin D-sub Male	0.5 M (18 in.)		+12VDC (Fan)	GND (Fan)	GND	+12VDC	n/a	n/a	n/a	n/a	n/a
24V-S Models	9 pin D-sub Male	1.8 M (6 ft.)		V-	n/a	n/a	+24VDC	n/a	n/a	n/a	n/a	n/a
24V-C Models¹	9 pin D-sub Male ¹	0.5 M (18 in.) ¹		+24VDC (Fan)	GND (Fan)	n/a	n/a	n/a	+24VDC	n/a	GND	n/a

¹ Note: 24V-C Models w/"Flying Leads" have a 4.5 M (15 ft.) cable with tinned leads and no connector; leads are labeled GND, V+ (+24VDC), FAN GND, FAN V+ (+24VDC).



Products are protected under US Patent #s:
5,461,417; 5,187,611; 5,539,485; 5,301,402;
5,604,550; 5,684,530; 5,713,661

All RVSI/NER Products come with an Industry-Leading 2-Year Warranty