

# 25mm (1") photomultiplier L25D19 series data sheet



## 1 description

The L25D19 is a 25 mm (1") diameter, end window photomultiplier with a blue-green sensitive bialkali photocathode and 8 linear focused type dynodes.

## 2 applications

- scintillation counting

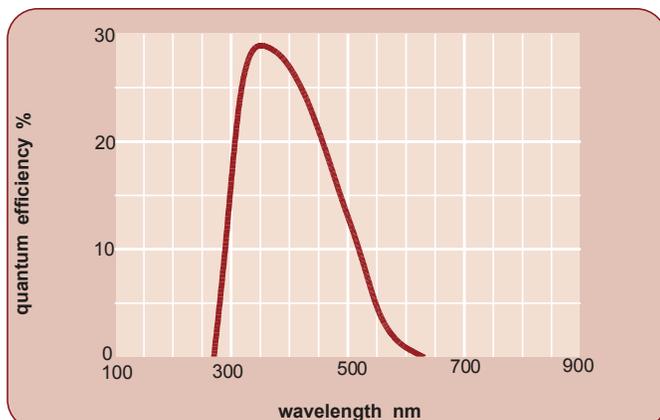
## 3 features

- fast time response
- good pulse height resolution

## 4 window characteristics

L25D19 hard glass	
spectral range*(nm)	290-630
refractive index (n )	1.49
K (ppm)	
Th (ppb)	(tbd)
U (ppb)	

## 5 typical spectral response curves

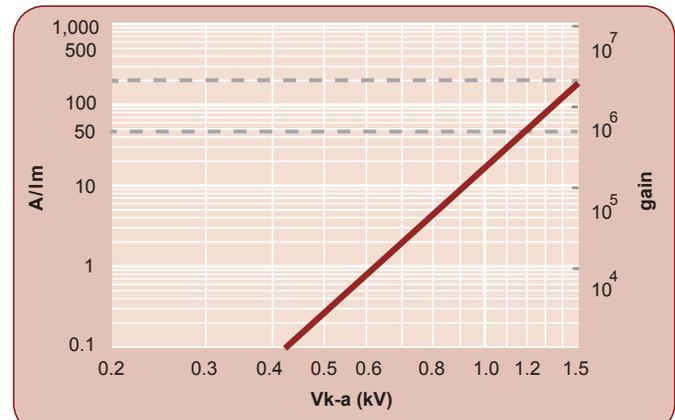


## 6 characteristics

	unit	min	typ	max
<b>photocathode: bialkali</b>				
active diameter	mm	22	-	
quantum efficiency at peak	%		28	
luminous sensitivity	$\mu\text{A}/\text{lm}$		80	
with CB filter		9	11.5	
with CR filter			2	
<b>dynodes: 8 LF</b>				
<b>anode sensitivity:</b>				
nominal anode sensitivity	A/lm		50	
max. rated anode sensitivity	A/lm		200	
overall V for nominal A/lm	V		1200	
overall V for max. rated A/lm	V		1500	
gain at nominal A/lm	$\times 10^6$		0.6	
<b>dark current at 20°C:</b>				
dc at nominal A/lm	nA		0.5	5
dc at max. rated A/lm	nA		2	
dark count rate	$\text{s}^{-1}$		-	
<b>pulsed linearity(-5% deviation)</b>	mA		10	
<b>pulse height resolution:</b>				
single electron peak to valley	ratio		3.0	
<sup>22</sup> Na with 1" x 1" LSO air gap	%		11	
<b>timing: at 1300 V</b>				
multi electron rise time	ns		1.0	
single electron jitter (fwhm)	ps		290	
transit time	ns		12	
weight:	g		20	
<b>maximum ratings:</b>				
anode current	$\mu\text{A}$			100
cathode current	nA			20
gain	$\times 10^6$			2.5
anode sensitivity	A/lm			200
temperature	°C	-30		50
V (k-a) <sup>(1)</sup>	V			1500
V (k-d1)	V			450
V (d-d) <sup>(2)</sup>	V			200

<sup>(1)</sup> subject to not exceeding max. rated sensitivity <sup>(2)</sup> subject to not exceeding max. rated V(k-a)

## 7 typical voltage gain characteristics

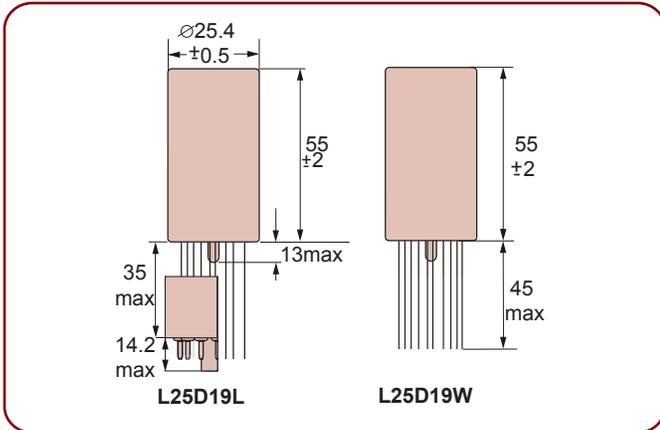


## 8 voltage divider distribution

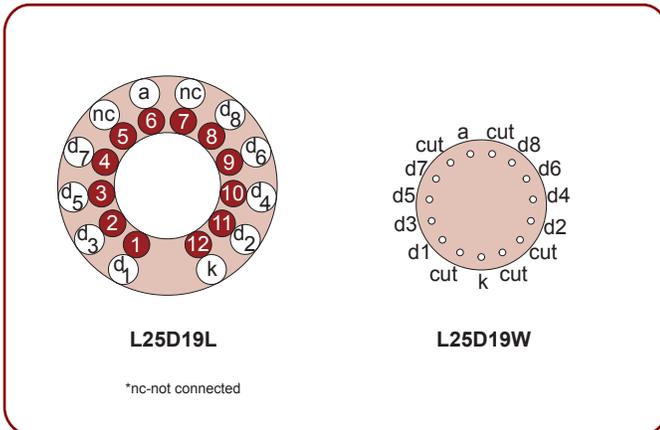
k	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	d <sub>6</sub>	d <sub>7</sub>	d <sub>8</sub>	a	
4	1.5	1.5	1	1	1	1.5	1	1		Standard

Characteristics contained in this data sheet refer to standard divider.

## 9 external dimensions mm

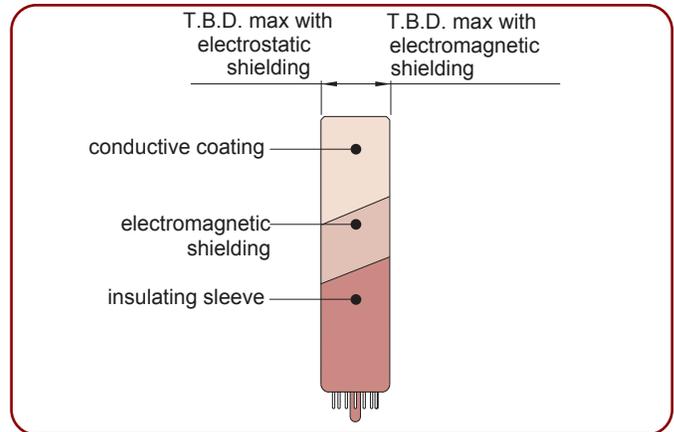
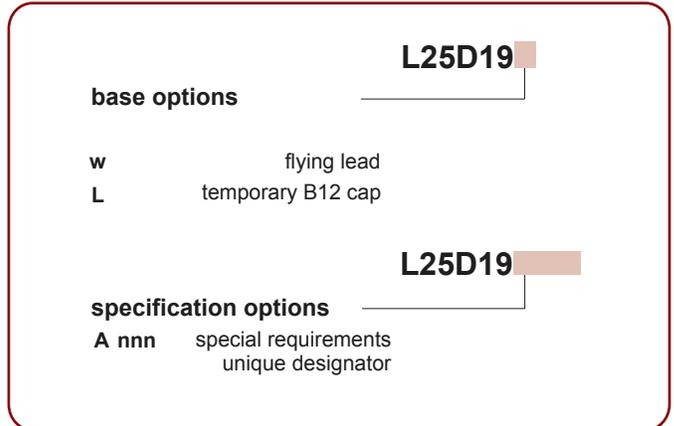


## 10 base configuration (viewed from below)



## 11 ordering information

Product with special test requirements, integral voltage divider network or with one or more of the shielding options below will be assigned a suffix with the letter A followed by a unique 3 digit number to designate the requirement.



## 12 voltage dividers

The L25D19 can be supplied with a custom designed voltage divider installed.

**ADIT Electron Tubes**  
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choose accessories for this pmt on our website

**ISO 9001:2008 Registered**  
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