

Sx-1 and Sx-3 Xenon Flash for Machine Vision

When it is required to

- illuminate a target with **high luminous flux**
- deal with **short integration** time and fast imaging
- **surpass variable ambient** light, including sun

Xenon flash is the most **efficient and competitive solution**

Phoxene designs and manufactures flash solutions for various industrial applications, including Machine Vision. Phoxene collaborates with system integrators to develop customer specific flash devices but, in most cases, the Sx-1 or Sx-3 devices are perfect solutions for Machine Vision applications.

Main benefits of the Sx- range



- Compact design**
- Long lifespan**
- High light power**
- Low customer cost**



Sx-1 addresses primarily applications when **very short exposure time** (<60 μ s), light stability and color rendering are required.

- Patented technology for regulating in real time the light emitted
- **5% luminance stability over 10⁶ shots** –not only shot to shot

Sx-3 addresses short to medium range image capture applications requiring high power lighting

- **High exposure up to 15 meters distance**
- Default Guide Number at 100 ISO : fstop.m 25

Technical features and specifications

		Sx-1	Sx-3
Energy per shot	J	2 to 5	2 to 20
Number of shots in a burst before recharge at 20 J		NA	2
Maximum repetition rate, 24/24h at 25°C at 20 J	Hz	NA	1
Maximum repetition rate, 24/24h at 25°C at 2 J	Hz	10	10
Minimum time between shots	ms	10	10
Pulse duration range	µs	< 60	50 - 250
Luminance stability over 10 ⁶ shots	%	< 5	-
Color stability over 10 ⁶ shots	%	< 8	-
Lamp lifespan at 20J	Shot	NA	500 000
Lamp lifespan at 2J	Shot	30 000 000	30 000 000
Monitoring and Control interface	-	✓	✓
Energy adjustment interface	-	✓	✓
Back panel switch for energy adjustment	-	✓	✓
Input voltage	V	12	12
Average power	W	40	40
Idle consumption	W	< 2	< 2
Weight	kg	1.5	1.5
Dimensions	mm	H83 x W120 x L155	H83 x W120 x L155
Operating ambient temperature	°C	-20 to +55	-20 to +55
Trigger mode	CMOS/TTL – Isolated -DC		
Power & Trigger connector	SubD 9		
Interface connector	USB		

Technical reminder

In 1 ms, **our Sx flash** units produce a luminous flux up to about **5 000 times higher than that of a common LED**

