

Product: MEMS Variable Optical Attenuator

Part Number	Spec Number	Version	Date
MVOAXXXXXXXXXXX	S054	Rev 01	09/25/2023

1 Specifications
1.1 Environment Conditions

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
1.	Operating Temperature	Top	0		70	°C	
2.	Storage Temperature	Tstor	-40		85	°C	
3.	Operating Relative Humidity	RHop	5		95	%	[1]
4.	Storage Relative Humidity	RHstor	5		95	%	[1]

Note:

[1] Not to exceed industrial standard of 0.024 kg water per kg of dry air under non-condensing conditions.

1.2 Optic specification

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
5.	Wavelength Range	O band	λ_{op}	1290~1330		nm	
6.		C band	λ_{op}	1525~1570		nm	
7.		L band	λ_{op}	1570~1610		nm	
8.	Insertion Loss	IL		0.6	0.8	dB	
9.	Attenuation Range 1	AR1	0		30	dB	
10.	Attenuation Range 2	AR2	0		35	dB	
11.	Blocking State Attenuation (Dark type)	BL	40			dB	
12.	Wavelength Dependent Loss	@0 dB Att.			0.3	dB	
		@20 dB Att.		1.0	1.5	dB	
13.	Polarization Dependent Loss	@0 dB Att.			0.2	dB	
		@20 dB Att.			0.5	dB	
14.	Return Loss	RL	45			dB	
15.	Response Time	RT			5	ms	
16.	Optical Power Handling	OP			500	mW	G
17.	Attenuation Resolution	RES	Continuous			/	
18.	Attenuation Type	ATT	By PN			/	
19.	Actuation Type	ACT	Non-latching			/	
20.	Driving Voltage	DV	0 ~ 7			V	
21.	Durability	DU	10 ⁹			cycles	G
22.	Power Consumption	PC			2	mW	G

Note:

* Above specifications are for device without connector. IL is 0.3 dB higher, RL is 5 dB lower after connector added.
 G: Guaranteed by design.

1.3 Mechanical Specifications

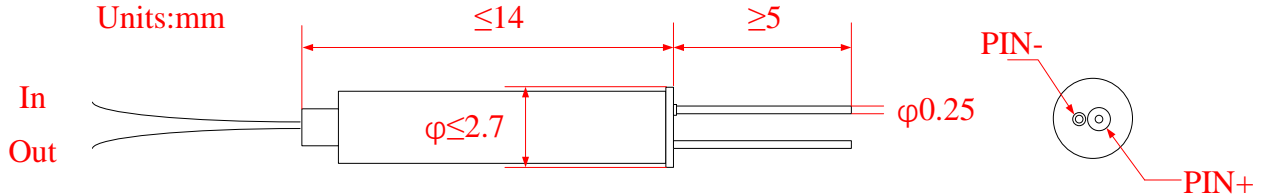
Item	Parameters	Symbol	Min	Typ	Max	Units	Note
23.	Fiber Type		By PN				
24.	Fiber Length		By PN			m	
25.	Fiber Jacket		Bare fiber				
26.	Connector Type		By PN				
27.	Package Dimension		See below for details			mm	
28.	Fiber Color	In	Black				[2]
		Out	Natural				

Note:

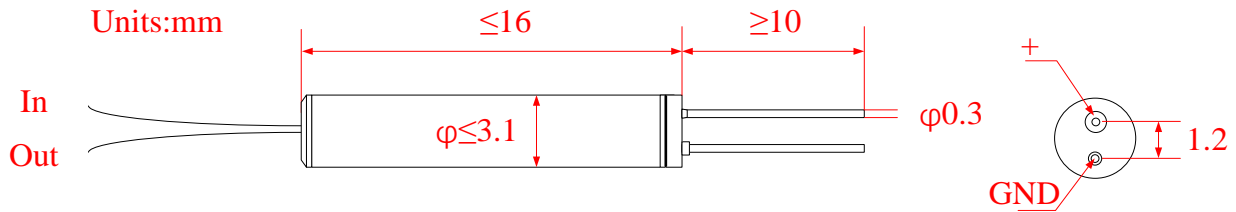
[2] Mark the bare fiber starting at 10~30cm away from the device body to fiber end.

1.4 Drawings

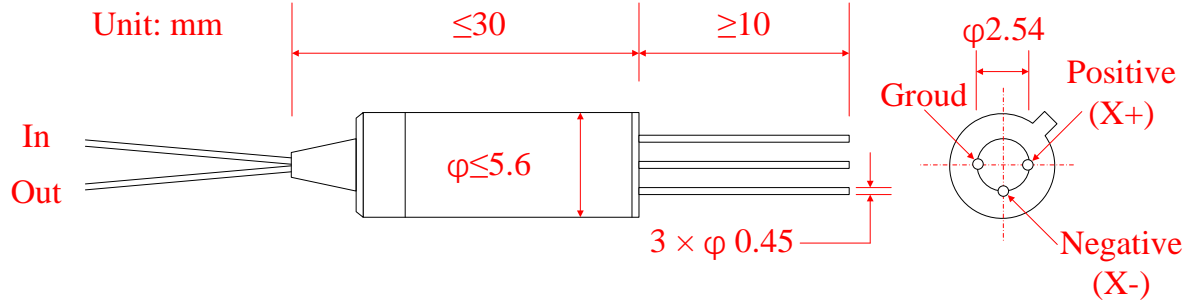
Dimension 1: $\varnothing \leq 2.7\text{mm}$



Dimension 2: $\varnothing \leq 3.1\text{mm}$



Dimension 3: $\varnothing \leq 5.6\text{mm}$



2 Device Label, Delivery Data

Triple-Stone standard format

3 RoHS

RoHS compliant

4 Order Information

