Spectroscopic plasma monitor and process control systems

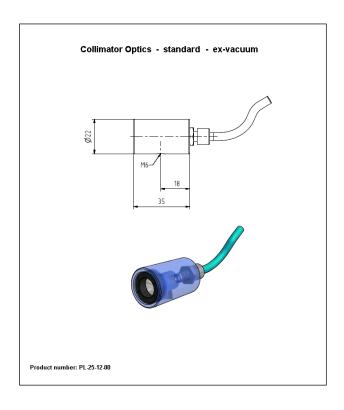
OPTIC COMPONENTS

Data Sheet

- I. Standard optics ex-vacuum
- 2. Slim optics in-vacuum
- 3. Miniature optics in-vacuum
- 4. Coating protection devices in-vacuum
- 5. Optical vacuum feedthroughs
- 6. Optical fibers in- and ex-vacuum

I. Standard optics - ex-vacuum

	0° angle	
Product number	PL-25-12-00	
Dimensions [mm]	22.0 dia. × 35.0	
Aperture [mm]	dia. 9.5	
Maximum temperature [°C]	90	
Coating protection	No	
Connector	SMA	
Weight [g]	25	
Material	POM	
Spectral range [nm]	200 - 1100	
Acceptance angle	approx. 3°	



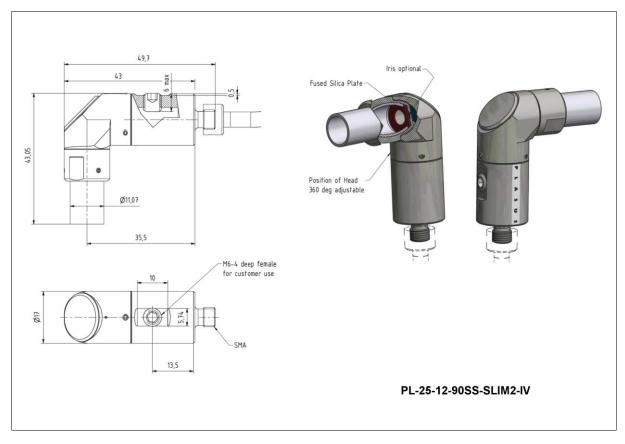


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2. Slim optics – in-vacuum

Collimator optics - 90° angle

	90° angle	
Product number	PL-25-12-90SS-SLIM2-IV	
Dimensions [mm]	17.0 × 43.05 × 9.7	
Aperture [mm]	dia. 9.5	
Coating protection	Yes	
Maximum temperature [°C]	600	
Connector	SMA	
Weight [g]	200	
Material	Stainless steel	
Spectral range [nm]	200 - 1100	
Acceptance angle	approx. I-2°	

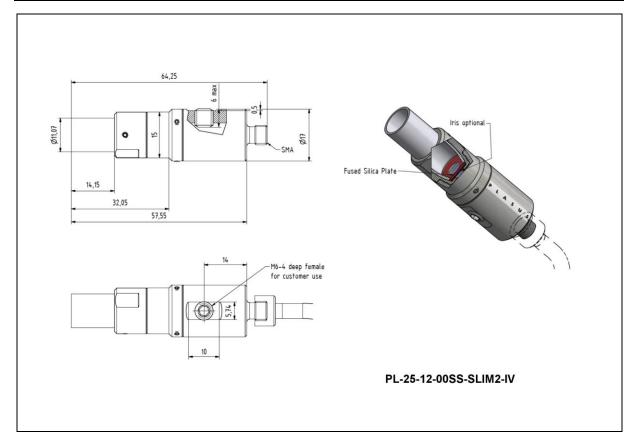




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Collimator optics – 0° angle

-	
	0° angle
Product number	PL-25-12-00SS-SLIM2-IV
Dimensions [mm]	17.0 dia. x 57.55
Aperture [mm]	dia. 9.5
Coating protection	Yes
Maximum temperature [°C]	600
Connector	SMA
Weight [g]	100
Material	Stainless steel
Spectral range [nm]	200 - 1100
Acceptance angle	approx. I-2°

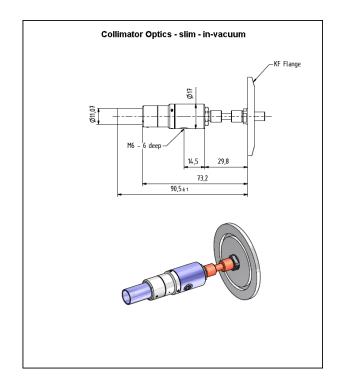




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Collimator optics – fixed assembly at feedthrough

	Assembly
Product numbers	PL-25-12-00SS-SLIM2-IV PL-600-MM32-UV-VIS-IV PL-OFT-KFxx-I
Dimensions [mm]	see drawing
Aperture [mm]	dia. 9.5
Maximum temperature [°C]	180
Coating protection	Yes
Connector	SMA
Weight [g]	200
Material	Stainless steel
Spectral range [nm]	200 - 1100
Acceptance angle	approx. 1-2°



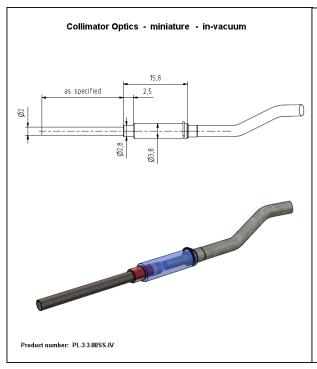


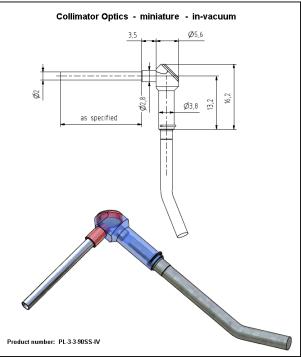
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3. Miniature optics - in-vacuum

Collimator optics

	0° angle	90° angle	
Product number	PL-3-3-00SS-IV	PL-3-3-90SS-IV	
Dimensions [mm]	3.8 dia. x 25.0	5.6 × 20.0 × 16.2 mm	
Aperture [mm]	dia. 1.8	dia. 1.8	
Coating protection	Yes	Yes	
Maximum temperature [°C]	180	180	
Connector	Miniature Miniature		
Weight [g]	4 6		
Material	Stainless steel		
Spectral range [nm]	200 - 1200		
Acceptance angle	approx. 3-5°		





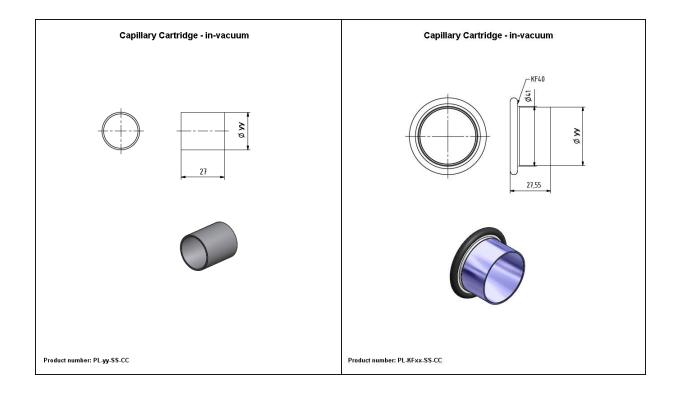


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4. Coating protection devices - in-vacuum

Capillary cartridges / honey combs

	without centering ring	with centering ring	
Product number	PL-yy-SS-CC	PL-KFxx-SS-CC (xx = 16, 25, 40)	
Dimensions [mm]	yy dia. x 27 mm, yy = 11.07, 19, 23.5, 30, 40 mm	yy dia. x 27.55 mm yy = 11.07, 23.5, 40	
Maximum temperature [°C]	600	200	
Material	Stainless steel		

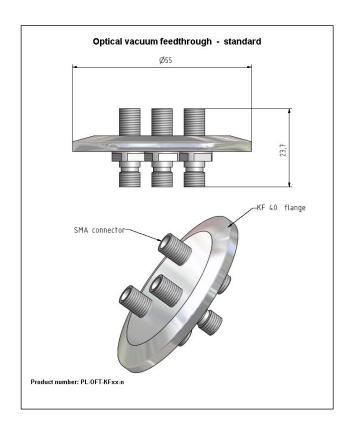




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5. Optical vacuum feedthroughs

	ISO KF flange	ISO CF flange	
Product number	PL-OFT-KFxx-n	PL-OFT-CFxx-n	
Number of feedthroughs	n = I - 4		
Connectors	SMA /	SMA / SMA	
Maximum temperature [°C]	180		
Material	Stainless steel		
Flange size/fitting	KFxx/CFxx = 16, 20, 25, 32, 40, 50		





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6. Optical fibers – in- and ex-vacuum

	Standard fibers		Miniature fibers	
	ex-vacuum	in-vacuum	in-vacuum	
Product number	PL-yyy-x-UV-VIS-NC	PL-yyy-x-UV-VIS-IV	PL-600-x-UV-VIS-IVM-I	
Outer diameter [mm]	5		3.2	
Electrically insulated	Yes	No	No	
Connectors	SMA / SMA		SMA / Miniature	
Maximum temperature [°C]	180			
Material	Stainless steel			
Fiber diameter [µm]	ууу = 600 µm / 1000 µm		600 µm	
Fiber bundle / Single fiber	blue sleeve / yellow sleeve (in-vacuum fiber: no sleeve)			
Spectral range [nm]	200 - 1100			
Fiber length [m]	x = length in meter as specified			



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