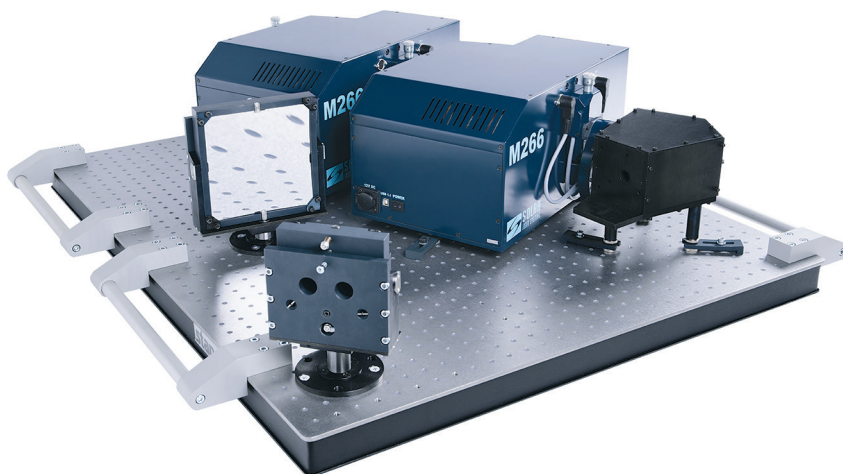


# DOUBLE MONOCHROMATOR-SPECTROGRAPH BASED ON THE M266

## DOUBLE M266

Monochromator-spectrograph M266 is available for order in the double-dispersive scheme modification – Double M266: in that case, the output slit of the first M266 becomes the input slit of the second M266. Due to larger focal length and dispersion addition, the twice-better spectral resolution and lower stray light are achieved. Upon your request, spectral slit with blackened blades can be supplied.



## DOUBLE M266 SPECIFICATIONS

Optical scheme	Optimized Czerny-Turner with one input and two outputs								
Spectral range	Typical 190 – 3600 nm, Extended up to 40 $\mu\text{m}$ (upon request)								
F/Number	1 : 3.8								
Focal length, mm	568								
Flat field on the lateral port of the first M266, mm	30 x 10								
Flat field on the lateral port of the second M266, mm	6 x 10								
Imaging	Option. Available for the both output ports simultaneously.								
Diffraction gratings	50x50x10 mm, one grating or a turret with 4 gratings from the list below <sup>1)</sup>								
Grooves/mm	2400	1800	1200	600	400	300			
Reciprocal linear dispersion (average) nm/mm <sup>2)</sup>	0.79	1.06	1.59	3.19	3.16	4.8	4.7	6.37	6.32
Blaze wavelength, nm	225	270	400	750	1000	800	1700	1500	2000
Spectral range, nm <sup>3)</sup>	190-450	190-540	265-800	500-1500	660-1800	530-1600	1130-2600	1000-3000	1330-3600
Multichannel array bandpass on the output of the first M266 (average), nm	38 <sup>4)</sup>	52 <sup>4)</sup>	76 <sup>4)</sup>	150 <sup>4)</sup>	80 <sup>5)</sup>	230 <sup>4)</sup>	120 <sup>5)</sup>	160 <sup>5)</sup>	160 <sup>5)</sup>
Multichannel array bandpass on the output of the second M266 (average), nm	3,8 <sup>4)</sup>	5,2 <sup>4)</sup>	7,6 <sup>4)</sup>	15 <sup>4)</sup>	8 <sup>5)</sup>	23 <sup>4)</sup>	12 <sup>5)</sup>	16 <sup>5)</sup>	16 <sup>5)</sup>
Spectral resolution on the output of the second M266, nm	<0,05 <sup>4)</sup>	<0,075 <sup>4)</sup>	<0,11 <sup>4)</sup>	<0,22 <sup>4)</sup>	<0,22 <sup>5)</sup>	<0,35 <sup>4)</sup>	<0,35 <sup>5)</sup>	<0,47 <sup>5)</sup>	<0,47 <sup>5)</sup>
Entrance/exit slits	Refer to M266 specifications								
Intermediate slit width, mm	5								
Filter wheel	Refer to M266 specifications								
Integrated shutter	Computer controlled, serves for dark signal measuring								
Computer interface	High-Speed USB								

1) Upon your request diffraction gratings differing from the above can be used.

2) Reciprocal linear dispersion is indicated for blazing wavelength.

3) Wavelength range for which diffraction efficiency exceeds 40%.

4) For detector with 24  $\mu\text{m}$  pixel size and 24.5 mm length of active area.

5) For detector with 25  $\mu\text{m}$  pixel size and 12.8 mm length of active area.