

DeVeny Gratings / Filters / Lamps

Instruments

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Facility
Instruments:

Large Monolithic Imager (LMI)

DeVeney Optical Spectrograph

NIR
Spectrograph
(NIHTS)

Visitor / PI
Instruments:

High-Res
Spectrograph
(EXPRES)

Speckle Imager
(QWSSI)

High Speed
Imager (POETS)

NIR
Spectrograph
(RIMAS)

User Manuals:

LMI Manual

DeVeny Manual

NIHTS Manual

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Instrumentation

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(Printable
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Logistics

LDT Important Notes

Facility

LDT Science
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Telescope

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Acknowledging LDT

Selected Technical Publications

This page is for quick reference. Please consult the [DeVenly Users Manual](#) for more detailed information.

DeVeny Gratings:

ID	Ruling (g/mm)	Blaze (Å)	Dispersion (Å/pix)	Free Spectra Range (Å)	Comments
DV1	150	5000	4.3	8800	KPNO 201
DV2	300	4000	2.17	4440	KPNO 09
DV3	300	6750	2.17	4440	KPNO 32
DV4	400	8500	1.66	3400	
DV5	500	5500	1.33	2720	KPNO 240
DV6	600	4900	1.14	2320	KPNO 26new
DV7	600	6750	1.14	2320	KPNO 35
DV8	831	8000	0.80	1630	KPNO 47
DV9	1200	5000	0.58	1180	
DV10	2160	5000	0.33	670	4500Å red tilt limit

DeVeny Filters:

Wheel	Position C	Position 1	Position 2	Position 3	Position 4
"Front" pre-slit	Clear	Neutral Density 2.5 mag	Neutral Density 5.0 mag	Neutral Density 7.5 mag	EMPTY
"Rear" post-slit	Clear	Order Sorting GG420	NOT INSTALLED* GG495	Order Sorting OG570	NOT INSTALLED (e.g., WG360?)

*The GG495 filter has been removed from the instrument; replacement plan TBD. (2021Apr29)

DeVeny Calibration Arc Lamps:

Ne - Neon (stabilizes within seconds) – [Video illustrating stabilization](#)

Ar - Argon (stabilizes within 1 minute) – [Video illustrating stabilization](#)

Hg - Mercury (stabilizes in 1-3 minutes) – [Video illustrating stabilization](#)

Cd - Cadmium (stabilizes in ~6 minutes) – [Video illustrating stabilization](#)

Example Grating Settings:

Grating	Tilt Angle	Central Wavelength	Range	Filter	Notes
DV1	21.00°	7200 Å	2600 Å 11,600 Å	GG420	O(2) at > 8400 Å
DV2	22.54°	5200 Å	3000 Å 7400 Å	GG420	
DV3	24.05°	6750 Å	4500 Å 9000 Å	GG420	O(2) at > 8400Å
DV3	25.28°	8000 Å	5800 Å 10,200 Å	OG570	
DV4	26.06°	6600 Å	4900 Å 8300 Å	GG420	
DV4	27.89°	8000 Å	5800 Å 10,200 Å	OG570	
DV5	24.62°	4400 Å	3000 Å 5800 Å	Clear	
DV5	27.24°	6000 Å	4600 Å 7400 Å	GG420	
DV5	29.04°	7100 Å	5700 Å 8500 Å	GG495	
DV6	27.04°	4900 Å	3750 Å 6050 Å	Clear	
DV7	31.19°	7000 Å	5850 Å 8150 Å	GG495	
DV8	39.51°	8000 Å	7200 Å 8800 Å	OG570	
DV9	33.20°	4000 Å	3400 Å 4600 Å	Clear	
DV9	37.27°	5000 Å	4400 Å 5600 Å	Clear	
DV9	42.30°	6200 Å	5600 Å 6800 Å	GG495	
DV9	46.65°	7200 Å	6600 Å 7800 Å	OG570	Collimator rails at lower limit
DV10	44.28°	3700 Å	3370 Å 4030 Å	Clear	Collimator rails at lower limit
DV10	48.0°	4170 Å	3840 4500	Clear	Red tilt limit