

# Neutron Velocity Selector

## Multidisc (MDR) and Multiblade (MBR) Selectors

Model Parameter	unit	MDR-13-420-410	MDR-13-420-410	MDR-15-420-500	MDR-15-420-500	MBR-7-420-360
Neutron window position		top	side	top	side	
Transmission	$\sigma_{\max}$ (%)	75	75	77	77	90%
Resolution	$\eta_0 = \Delta\lambda / \lambda$ (%)	13	13	15	15	8%
Resolution range	$\eta$ (%)	9 - 28	8 - 45	11 - 22	11 - 22	5-12
Wavelength	$\lambda$ min at $\eta_0$ (Å)	3.8	3.8	3.6	3.6	3.8
Wavelength range	$\lambda$ (Å)	2.7 - 45	2.7 - 45	2.5 - 45	2.5 - 45	2.4-50
Beam size	$h \times w$ (mm <sup>2</sup> )	50 x 100	100 x 40	60 x 60	100 x 55	50 x 50
Divergence	$\Phi = b/2l$ (deg)	0.47 0.02				0.47 0.02

Codification: MDR (MultiDisc Rotor) - 15 (nominal resolution at 0 tilt angle in %) - 800 (rotor length) - 500 (disc diameter) (S) (Side neutron window, vertical plain tilt angle variation for resolution change)



Multidisc Selector



Multiblade Selector



The rotor of the multiblade and the multidisc selector