

The following table provides an overview of recommended values for acceleration voltage (EHT), working distance (WD) and probe current (Aperture Size) for the various applications and conditions. Only rough values are specified in the table.

Standard values for the most important parameters	
Acceleration voltage (EHT)	
Standard application:	5 – 20 kV
Low-power magnification:	5 – 15 kV
(depending on working distance)	
High resolution:	15 kV
Non-conducting samples (uncoated):	0.1 – 3 kV
Non-conducting samples (coated):	5 – 10 kV
Beam-sensitive samples:	0.1 – 2 kV
Conducting samples:	3 – 20 kV
EDX Analysis:	5 – 30 kV
Inlens detector:	0.1 – 20 kV
SE2 detector:	1 – 30 kV
VPSE detector:	7 – 25 kV
BSE detector:	5 – 30 kV
EsB detector:	0.5 – 10 kV
Working distance (WD)	
Standard application:	approx. 8 mm
Low-power magnification:	~20 mm
High resolution:	2 – 5 mm
EDX analysis:	8.5 mm
Inlens detector:	≤ 10 mm
SE2 detector:	4 – 20 mm
VPSE detector:	8 – 20 mm
BSE detector:	approx. 9 mm
EsB detector:	2 – 5 mm
Probe current (Aperture Size)	
Standard application:	30 µm
Low magnification survey:	30 – 120 µm
High resolution:	10 – 30 µm
non-conducting samples (uncoated):	7.5 – 30 µm
non-conducting samples (coated):	20 – 60 µm
beam-sensitive samples:	7.5 – 30 µm
conducting samples:	20 – 60 µm
EDX analysis:	30 – 120 µm
(depending on the required Count Rate)	
Inlens detector:	7.5 – 30 µm
SE2 detector:	20 – 120 µm
VPSE detector:	30 – 60 µm
BSE detector:	30 – 120 µm
EsB detector:	20 – 60 µm