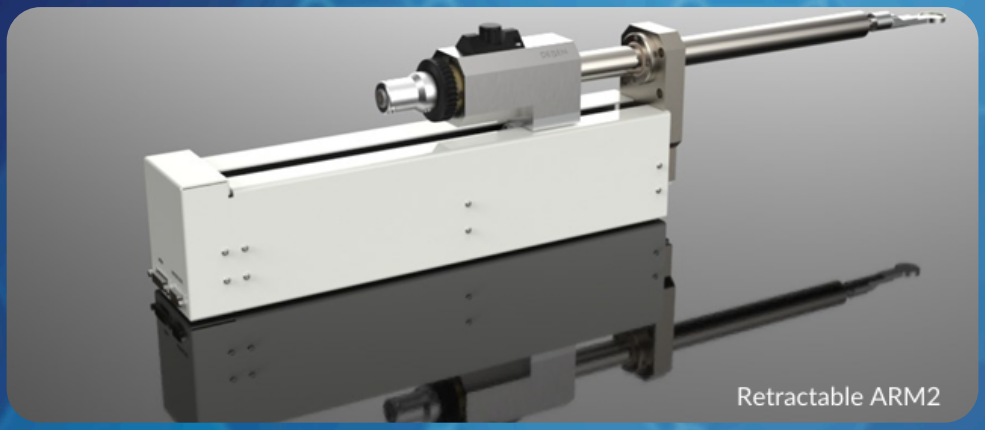
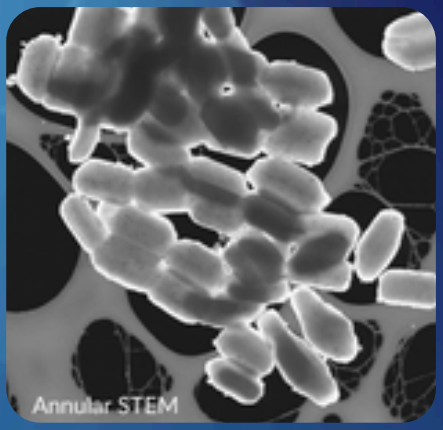
DATASHEET: GEN5 STEM DETECTOR





Features:

- **Low kV Operation (1kV to 30kV)**
- **Dark Field and Bright Field Options**
- **Multiple Imaging Channels**

Using the **Deben Scanning Transmission Electron Microscopy detector** (STEM), SEM users can acquire transmitted electron images for a fraction of the cost of a dedicated Transmission Electron Microscope (TEM) - results are comparable when used in a FE-SEM and the STEM can also be used in a conventional SEM with ease.

Not only is the **STEM detector** designed so that the specimen and area of interest are easily found using the unique FIND™ software feature, but users can simply switch between STEM and SEM mode with just a click of a mouse.

Acquisition parameters can be set to **automatic** or **manual,** providing ease of use for novice or expert microscopists.

Advantages:

- Greater contrast, reduced sample damage
- Higher spatial resolution than bulk sample imaging
- Gentle investigation of sensitive materials
- Easy to find specimen and area of interest
- Resolution close to that of the SEM (in SE mode)

TEM specimen grids (3.05mm) are easily mounted to the 12 position grid holder. Any combination of bright and dark field diodes (including reversed polarity) may be selected for processing. Software can be installed on the SEM or a standalone computer.

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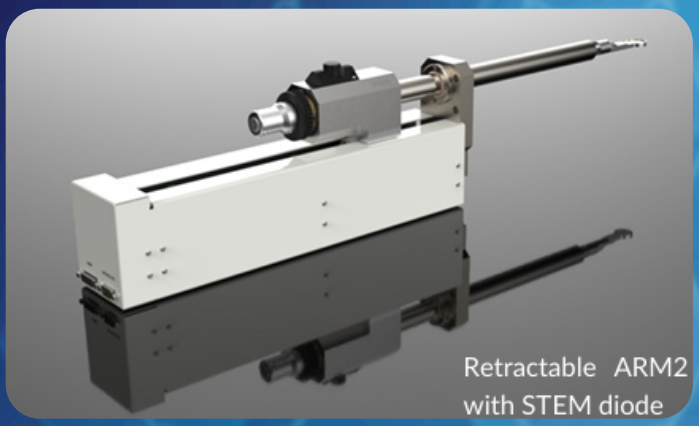
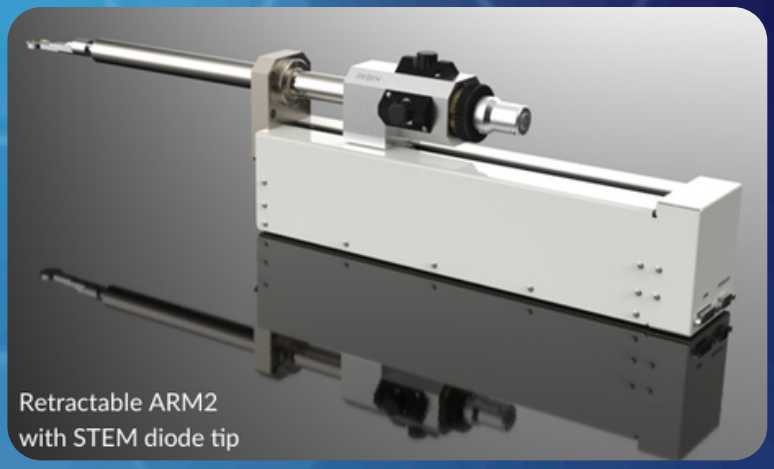
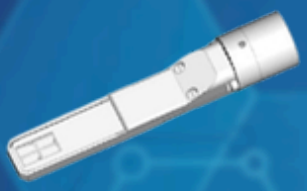

Retractable ARM2
with STEM diode


Retractable ARM2
with STEM diode tip



Four Element
- DF
- BF

The Four Element diode is configured with four Dark Field (**DF**) diodes wired as two pairs and a single Bright Field (**BF**) diode. Operational in BF mode. DF mode or DF Phase Contrast mode, along with mixinf between segments.

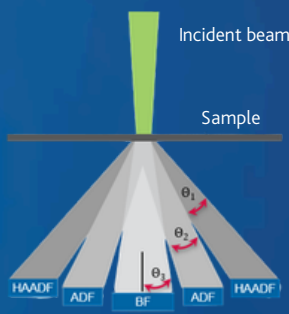
Annular 3-ring
- LAADF
- MAADF
- HAADF
- BF

The 3-ring Annular diode is configured with 3 rings for Low, (LAADF), Medium (MAADF) and High (HAADF) Angle Annular DF modes, as well as BF mode.

Four Quadrant Annular 2-ring
- DF
- HAADF
- BF

The Four Quadrant 2-ring Annular diode is configured with 2 rings for DF and High Angle Annular Dark Field (HAADF) modes, plus BF.

Applications:
- **Materials & Biological Sciences**
- **Grid Screening**
- **General Imaging**



Θ1 > 50 mrads
10 < Θ2 > 50 mrads
Θ3 > 10 mrads

System Specifications
- Retractable mounting mechanics
- Various mounting options to suit most SEMs
- Gen5 microprocessor controlled amplifier
- 12 position grid holder
- Motorised insertion and retraction

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