

Direct-Attach Shutter

DA-Shutter



For accurate results during a transmission, absorption, reflection, irradiance or color measurement at different integration times, a good dark measurement is necessary. Taking this dark measurement often leads to having to undertake manual actions, like covering the sensor or switching off the light. This might prove to be problematic with certain applications because of the time and place or operator restraints.

Our solution: a remote-controlled shutter, positioned between the spectrometer entrance and the input fiber.

Avantes' direct-attach shutter is the ideal accessory to facilitate automatic shuttering of a spectrometer. This shutter is operated via TTL pulses from either an external source or an AvaSpec spectrometer through a cable

(IC-DB26-AS-SHUTTER-0.6, to be ordered separately).

The DA-Shutter switch unit is directly attached to the spectrometer's SMA input connector. The fiber that is normally connected to the spectrometer is then connected to the DA-Shutter. This switch unit, as well as the power source and TTL control signal, is connected to the control box.

The industrial-graded shutter motor used inside will support heavy usage of the instrument. With its 5,000,000 cycles, 24/7 operation is supported in most cases.

To operate the DA-Shutter, a PS-12V/2.08A 12 volt DC power adapter is required (to be ordered separately).

Technical Data

Wavelength range	200-2500 nm
Fiber connection	SMA-905 connector
Spectrometer connection	SMA-905 connector (female)
Shutter frequency	Max. 5 Hz
Shutter delay	15 ms
Attenuation/amplification DA-Shutter	+0.6 dB (AvaSpec HSC/HERO), -1.5 dB (AvaSpec HSC/NIR)*, +0.6 dB (AvaSpec-ULS/Mini)
Material	Black anodized aluminum
Dimensions switch unit (DxH)	30 x 38 mm
Dimensions control box (HxLxW)	28 x 58 x 45 mm
Power	12V DC/500 mA
Lifetime shutter	5,000,000 cycles (typical)

*Attenuation is measured using 600 µm core fibers

Ordering Information

DA-Shutter	• Direct-attach shutter, one optical path, including control box. Needs 12V power supply and interface cable (not included)
IC-DB26-DA-AS-SHUTTER-0.6	• Interface cable for AvaSpec-EVO platform to DA-Shutter, 0.6 m
IC-DB26-DA-AS-SHUTTER-2.0	• Interface cable for AvaSpec-EVO platform to DA-Shutter, 2 m
PS-12V/2.08A	• Power supply 12 VDC, 2.08 A, necessary for DA-Shutter