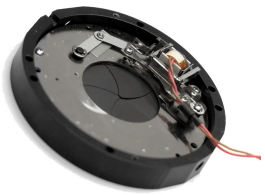
Datasheet

Uniblitz® FS25

25 mm Uni-Stable Optical Shutter



Overview

Uniblitz® FS series shutters are designed and optimized to run directly from +5 VDC, with no separate driver. Removing the +5 VDC (0 VDC) closes them. A simple control circuit lets them run from a TTL trigger pulse, or the VLM1 TTL control interface module can do it for you.

This low-cost design brings the reliability of Uniblitz shutters (typical lifetime >1 million cycles) at a single operating voltage.

Key features

- ✓ 25 mm aperture
- ✓ Default closed operation
- ✓ Transfer time: 9.0 ms opening, 22.0 ms closing
- ✓ RoHS compliant

Specifications

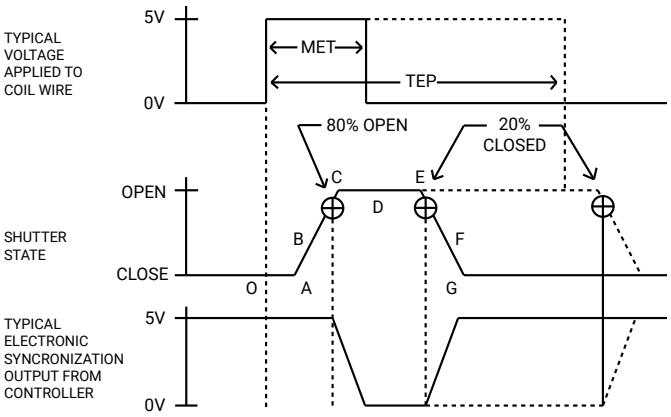
Electrical	
Coil resistance	12 Ω
Voltage to open	+5 VDC at 425 mA
Hold voltage	+5 VDC

Mechanical	
Weight, un-housed	22.0 g
Weight, half-housed	57.0 g
Weight, housed	92.5 g
Operating temperature	−40 to +65 °C
Max. opening bounce	15%
Max. closing bounce	5%
Max. frequency[1]	15 Hz
Number of shutter blades	5

1 Continuous, at the shutter's minimum exposure time (MET).

©2026 Vincent Associates · 803 Linden Ave., Rochester, NY 14625

Shutter timing data[2]



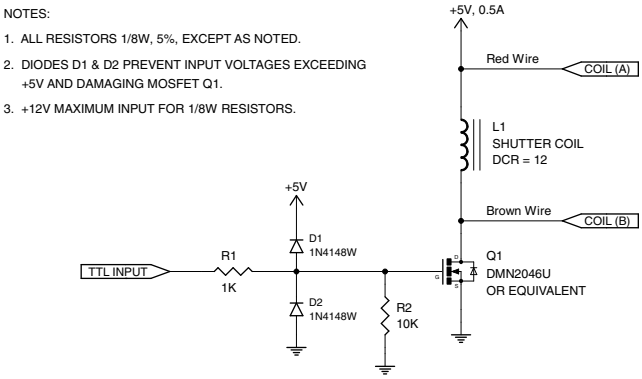
1 Measured at 5 VDC with C-PET blades.
2 Never lubricate the blade area. It slows the shutter and can make it inoperable.

Segment	Description	ms[1]
O–A	Delay time on opening after current is applied	7.0
A–C	Transfer time on opening	9.0
O–C	Total opening time	16.0
C–E	Min. dwell time with min. input pulse	15.0
B–F	Min. equivalent exposure time	30.5
E–G	Transfer time on closing	22.0
A–G	Total window time	46.0
MET	Minimum exposure time	30.0
TET	Typical exposure time	>30.0

Typical control circuit

This simple control circuit runs the shutter from a TTL trigger pulse.[1] The VLM1 interface module can do the same.

1 The shutter won't run directly from a TTL signal.



Product options

FS25 | 2 | 3 | 4 | 5 | 6 | — | 7

Example: **FS25S2C0L-EC**

1	**Shutter series**
FS25	Normally closed
FSR25	Normally open
2	**Voltage**
S	Standard 5 VDC
3	**Housing**[1]
1	Un-housed
2	Half-housed
3	Fully housed

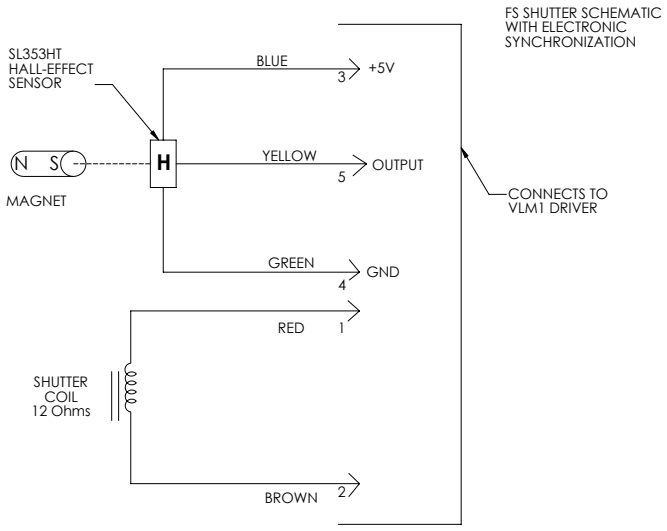
4	**Blades**[2]
C	Carbon-impregnated plastic (C-PET)
T	Low energy (Teflon®)
ZM	High energy ($AlMgF_2$)[3]
5	**Electronic sync**
0	Omitted
1	Included
6	**Connector**
L	18 in (457 mm) flying leads
—	Leave blank if not required
7	**Encapsulated coil**
EC	Included[4]

1 Mounting methods vary with the housing option.
2 Other blade coatings may be available by special order.
3 Input side only; the Teflon® coating on the opposite side protects the blade surface. Light must enter on the reflective side.
4 Vacuum compatible up to 10E-10 Torr.

Electronic sync

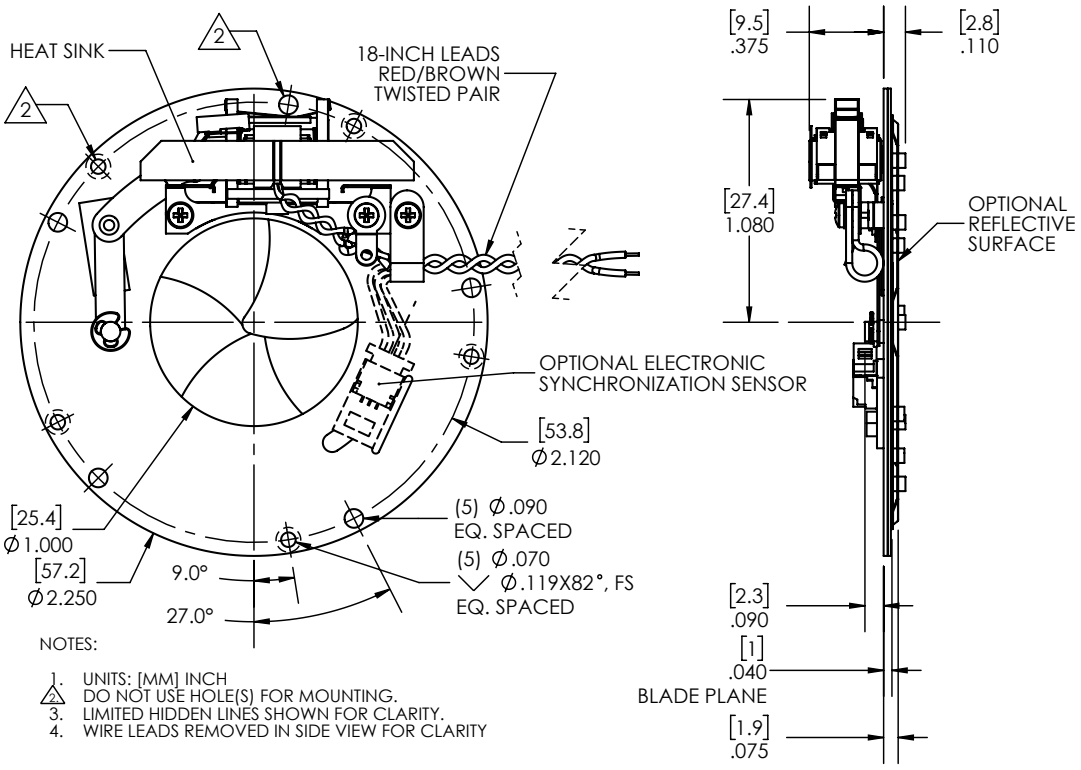
The FS25's electronic sync uses a small magnet on the drive mechanism and a Hall Effect sensor. At about 80% open, the sensor changes state and signals that the shutter is open.

With the sync omitted, the sync pins are not connected.

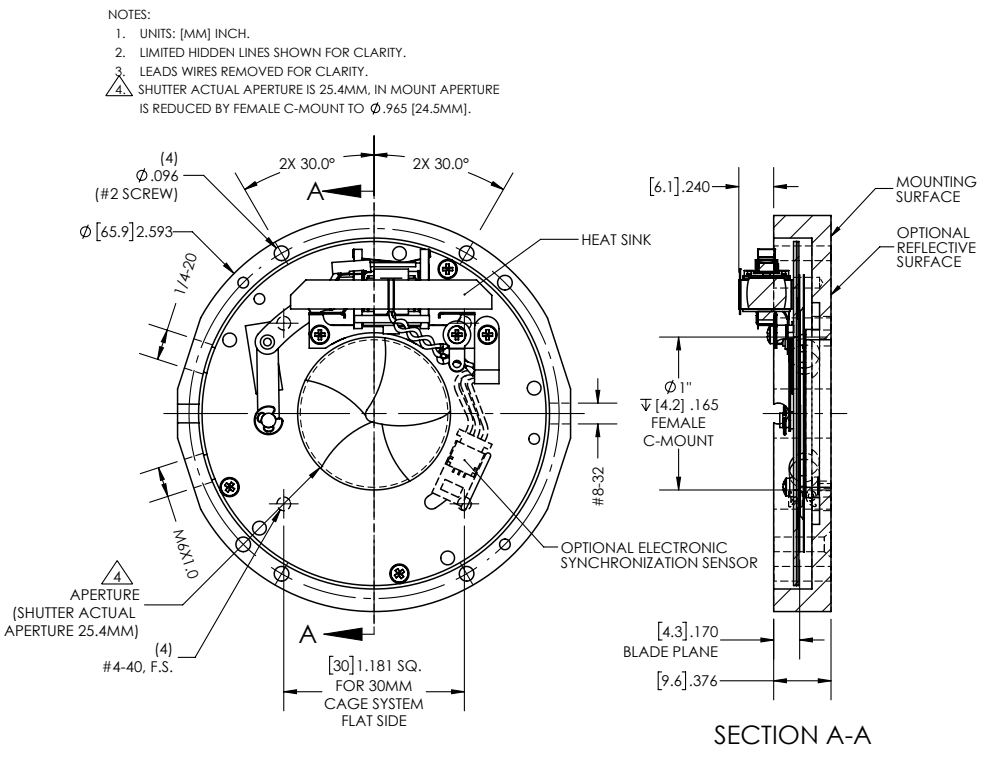


Technical drawings

FS25, un-housed (FS25S1C0L)



FS25, half-housed (FS25S2C0L)



FS25, fully housed (FS25S3C0L)

NOTES:
1. UNITS: [MM] INCH
2. LIMITED HIDDEN LINES SHOWN FOR CLARITY.
3. SHUTTER APERTURE IS 25.4MM REDUCED TO(Ø.965 [24.5MM]) WHEN INSTALLED INTO HOUSING.
4. OPTIONAL REFLECTIVE SURFACE OPPOSITE ACTUATOR COIL SIDE.

