CS65 SHUTTER SPECIFICATIONS

Vincent Associates 803 Linden Avenue, Rochester, NY 14625 **web** www.uniblitz.com **e-mail** vincentassociates@uniblitz.com

toll-free 800.828.6972



TIMING OF PULSE INPUT AND SYNCHRONIZATION

FEATURES

- Small form factor, a 65 mm aperture fits into a 5-inch diameter housing!
- Multi-bladed design in combination with the UNIBLITZ actuator provide increased speed over other designs of this type.
- State of the art damping system for increased reliability and speed.
- Minimum exposure time exceeds that of the VS65!
- Reflective blades available as with Vincent LS, VS and CS45 series.
- Can be driven with our existing VMM drive units.
 Special driver not required.
- Available housed or un-housed for OEM applications.
- #102 Mounting Ring available for universal mounting applications.
- Electronic Synchronization System option available.
- Exposure repetition rates from DC to 2 Hz.
- Design, accuracy, and reliability that you have come to know as with all other UNIBLITZ products!

The CS65 is the newest patent-pending product and is the next release in the new *UNIBLITZ*® CS series. The small form factor allows a 65 mm aperture to be installed into applications not presently accessible with existing UNIBLITZ VS series shutters. As with the CS45, the CS65 has been designed to provide accurate, repeatable exposures for a wide variety of applications. The small form factor allows a 65 mm aperture to be installed into a five-inch diameter housing – about the same overall size as the existing VS35 shutter! To increase the unit's flexibility, the shutter can be supplied in an unhoused version for OEM applications or in situations inaccessible to most shutters due to spatial limitations.

The CS65, along with its state-of-the-art damping system, provides increased reliability over other designs of its type. In addition, the system provides the reliable actuator system found in all other UNIBLITZ shutter designs allowing it to be driven with our existing VMM drive units. As an option, the shutter can be equipped the electronic synchronization system.

When gating high intensity light sources, the CS65 can be equipped with polished stainless steel reflective blades. This option protects the shutter blades from the light source's damaging effects by reflecting the energy away from the blade surface. Look for future availability of "Z" (AlSiO) and "ZM" (AlMgF₂) coated blades in this device.

To further enhance the flexibility of the CS65; an optional #102 mounting ring is available to allow the shutter to be easily mounted in many non-specific applications. Additional information regarding the #102 mounting ring can be found in the specific data sheet entitled "MICROSCOPE & VIDEO MOUNTING SYSTEMS" or online under "products", "Mounting Systems".

ELECTRICAL

Coil Res.:	12 ohms
Pulse Voltage to Open	+70VDC
Hold Volt.:	+7VDC/+5VDC*

(*VMM dual hold level driver system included in UNIBLITZ VMM shutter controller)

MECHANICAL

Wgt. Un-Cased	4.0 oz (0.112 kg)
Wgt. Cased	13.2 oz (0.374 kg)
Operating Temp.	0°C to +80°C
Max. Frequency of Operat.	2Hz
Max. Opening Bounce	15%
Max. Closing Bounce	5%
Number of Blades	6

TIMING

OUTPUT FROM

CONTROLLER

Typical timing values (msec.) using UNIBLITZ drive equipment and measured with UNIBLITZ shutters equipped with standard TEFLON® coated shutter blades.

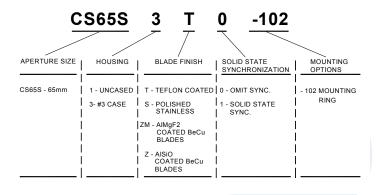
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OUTPUT RELATIVE TO SHUTTER STATE 5V **TYPICAL PULSE** MET **INPUT TO** TFP 0٧ CONTROLLER 80% OPEN 20% CLOSED OPEN-**SHUTTER** STATE CLOSE **TYPICAL ELECTRONIC SYNCHRONIZATION**

(Timing in msec.) 6.0 O-A Delay time on opening after current is applied A-C Transfer time on opening 29.0 O-C Total opening time 35.0 B-F Min. equivalent exp. time 78.0 C-E Min. dwell time with min. input pulse 18.0 E-G Transfer time on closing 55.0 107.0 A-G Total window time 40.0 MET: Min. exposure time TEP: Typical exposure pulse >40.0

The question regarding enhancement of shutter speed with the application of user supplied lubricants has been repeatedly asked. It is our experience that lubricating the shutter blades will actually slow the shutter down and eventually render the shutter inoperable. UNDER NO CIRCUMSTANCES SHOULD ANY TYPE OF LUBRICANT BE APPLIED TO THE SHUTTER BLADE AREA.

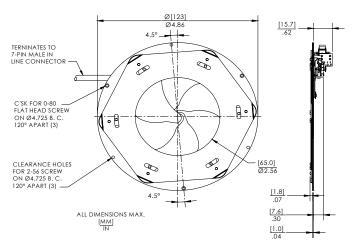
HOW TO ORDER





UN-CASED STYLE

Figure 1



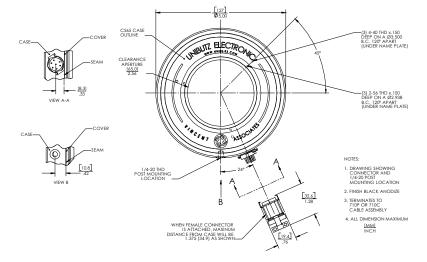
The CS65 un-housed style is the basic configuration of this device and is best suited for OEM applications. Mounting can be accomplished through three 0-80 (flat head required) clearance holes located around the unit's perimeter on a 4.725 inch diameter bolt circle. These holes, as indicated, are 120 degrees apart. Unless otherwise specified, this standard unit is terminated to a 7-pin male connector through a 7-wire six-inch cable assembly. (The three 2-56 holes are not recommended for mounting due to the potential for interference with the shutter's blades.)

CASED STYLE Figure 2 1.08 NOTES SHUTTER 1. (3) 2-56 MOUNTING PLATE HOLES ON A Ø2.938 BOLT CIRCLE 120° SEE NOTES APART (UNDER NAME PLATE) 2. (3) 4-40 MOUNTING [17.0] HOLES ON A Ø3.500 [7.4] .29 BOLT CIRCLE 120° APART (UNDER NAME Ø76.2] [Ø127.0] Ø5.00 x40 THD 3. ALL DIMENSIONS MAX. 3 CASE [MM] INCH SHUTTER REFLECTIVE SURFACE THIS SIDE [6.4] Ø.25 x 40 THD.

The CS65 #3 housing style allows a number of mounting configurations. A 1/4-20 threaded hole is provided for post mounting. The 3.00inch x 40TPI external thread located on the rear side, and the specific mounting holes located on the front side (see Figure #2 and Figure #3) can be interfaced directly into your application or fitted with a variety of user specific mounting options. For the CS65, the #102 Mounting Ring is presently the only mounting option available. Additional information regarding the #102 mounting ring can be found in the specific data sheet entitled "MICROSCOPE & VIDEO MOUNTING SYS-TEMS" or on-line under "products", "Mounting Systems". The unit terminates with a 7-pin male connector as illustrated.

HOUSING/CONNECTOR LAYOUT

Figure 3



This drawing illustrates 7-pin connector and 1/4-20 threaded hole layout for the CS65 series #3 housed style.

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