LIGHT MODULATION

In a wide range of new and technically demanding applications it is necessary for the Xenon lamps to be not only stable sources of continuous light but also to work as chopped light intensity sources. The light modulation, that is obtained from the electronic command of the lamp offers more possibilities than a mechanical chopper does.

MODULATOR MXM 450

This instrument is located between the power supply and the lamp housing. It allows the user to modulate the light intensity in a large frequency range into the form of square, sinusoidal, triangular, saw tooth or asymmetrical square wave. The degree of optical modulation is limited by the parameters of the arc lamp. Due to stray capacitances in the lamp house, waveforms of the preselected functions are distorted over a frequency of 5 kHz. Under this limit it is possible to modulate 90% of the light intensity. The maximum amplitude of the modulated lamp current depends on the power supply being used.

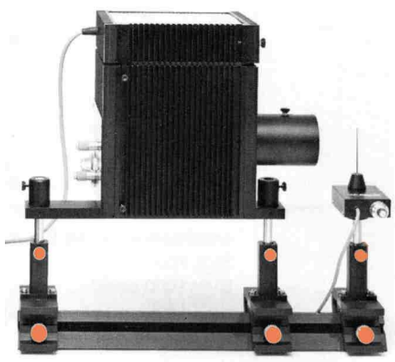
Specification

Supply:	220 V ± 10%, 50 Hz, 30 VA
Maximum modulation current:	30 A (supplied by SVX)
Maximum d.c. voltage:	100 V switchable in 3 frequency ranges
Internal frequency generator:	15-100 Hz, 100-1000 Hz, 1000-10000 Hz continuously adjustable within the frequency range
Wave forms:	square, sinusoidal, triangular, saw tooth, asymmetrical square
Modulation:	0 -90%
Average lamp current:	adjustable button; max. possibility of keeping selected function distortion free
AC:	synchronised exit for controlling frequency and wave forms
Dimensions:	200 W x 170 D x 370 H mm³
Weight:	7 kg

The modulator MXM 450 can be added without modification to existing light sources manufactured by Müller Elektronik-Optik. The instrument can stay connected during lamp ignition.

LIGHT FEED BACK CONTROL

The LIX is an optional unit which can be connected to lamp power supplies and is used to stabilise the light intensity instead of the operating current. This eliminates effects of ageing (for instance: coating of lamp envelope). A silicone diode serves as a receiver It is supplied with light from a light guide placed somewhere in the emergent light beam from the condenser. The lamp intensity is essentially kept constant at 850 nm. Using colour filters it is possible to keep the intensity constant in the spectral region of interest.



Specification

Supply:	by SVX
Receiver:	Photo diode BPX 90
Maximum efficiency:	850 nm
Light guide:	2 mm ø, 80 mm long
Dimensions:	60 W x 86 D x 25 H mm~