This information is available on the Internet at www.hansen-neon.de or www.klinger-neon.de N21E/02/2003
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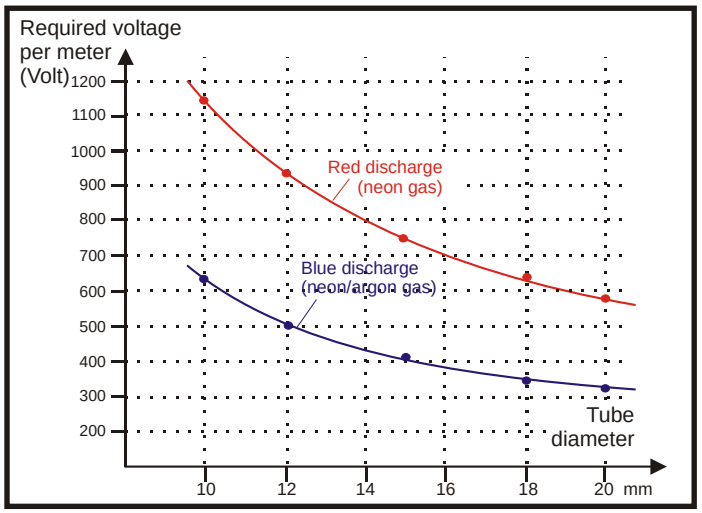
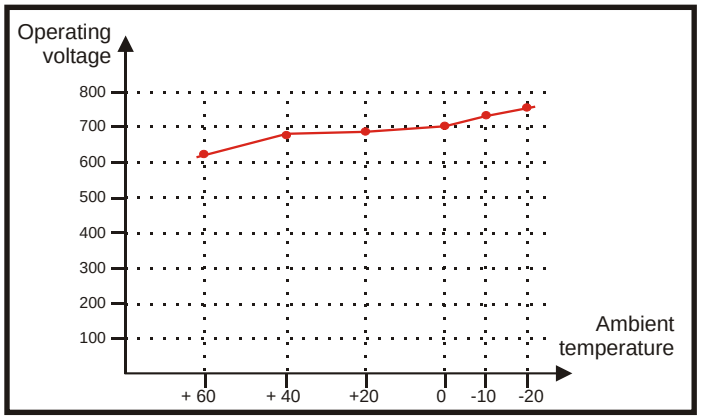
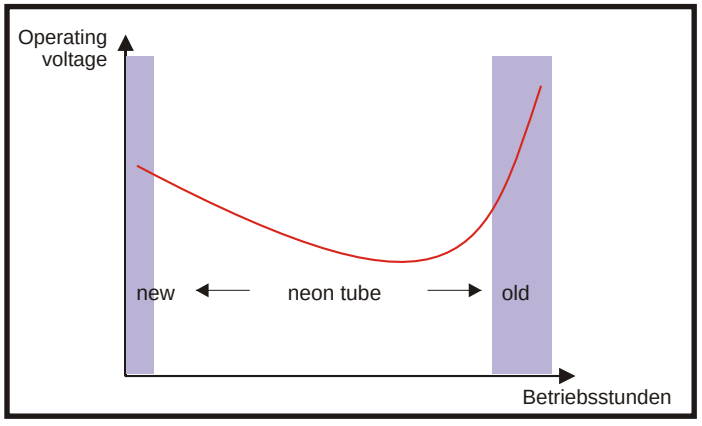
Voltage requirements of the tube



Voltage requirement per meter of tube
for tubes with blue and red gas filling



Tube voltage at different temperatures
Tube: 1710 mm, 18mm in diameter (blue discharge)



Operating voltage with increasing age of the tube
(principle)

The ignition of a fluorescent tube requires a sufficiently high voltage. The major influencing parameters in this process are:

The length of the tube:
The longer the tube, the higher the voltage required for ingition.

The diameter of the tube:
A thin neon tube requires a higher ignition voltage than a thicker tube.

Other influencing factors which determine the voltage requirement of a fluorescent tube are:

The type of gas filling:
The voltage required for a pure neon gas filling (red discharge) is higher than the voltage required by a neon / argon mixture (blue discharge).

The ambient temperature:
If the tubes are used in outdoor systems (low ambient temperatures), a certain voltage reserve must be taken into account. The voltage requirement is higher at low temperatures.

The age of the tube:
New neon tubes require a higher voltage than tubes which have been in operation for several hundred hours. At the end of a tube´s service life, however, the voltage at the tube rises again considerably.

In addition to these parameters, there are other factors as for example the filling pressure of the tubes which affect the actual voltage requirement.

Further information on this subject is available on request.