

INDICATOR TUBE

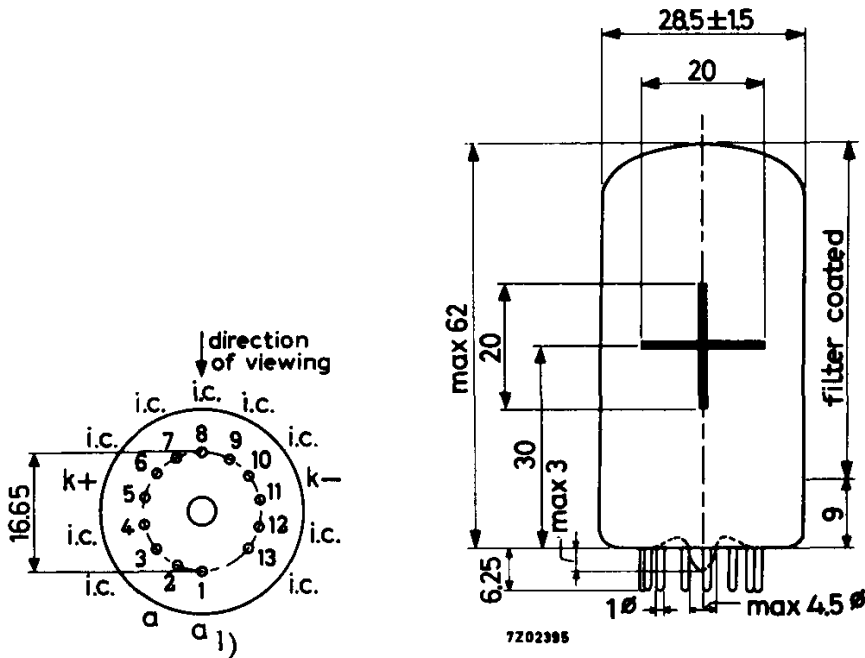
Cold cathode sign indicator tube for side viewing.

QUICK REFERENCE DATA		
Sign height	20	mm
Signs	+ -	
Supply voltage	170	V
Cathode current	4.5	mA

DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: B13B



GENERAL

The tube has the same physical dimensions as the ZM1040 numeral indicator tube. The ZM1041 is provided with a red contrast filter.

1) Pins 1 and 2 to be interconnected externally.

CHARACTERISTICS

Ignition voltage	V_{ign} max. 170 V
Maintaining voltage	V_m see sheets 3 and 4
Extinguishing voltage	V_{ext} min. 120 V
"Off" cathode probe current characteristic	see sheet 4

PRINCIPLE OF OPERATION

The tube contains two cathodes, in the form of the signs + and -, and a common anode. By applying a suitable voltage between the anode and one of the cathodes the corresponding sign will be covered by a red neon glow.

ACCESSORIES

Socket 2422 505 00001, 2422 505 00002 or 2422 505 00003

MOUNTING POSITION

Any

The signs are viewed through the side of the envelope.

LIMITING VALUES (Absolute max. rating system)

Anode voltage necessary for ignition	V_a min. 170 V
Cathode current,	
average during any conduction period	I_k min. 3 mA
average ($T_{av} = 20$ ms)	I_k max. 6 mA
peak	I_{kp} max. 20 mA
Impulse duration	T_{imp} min. 80 μ s
Cathode selecting voltage	V_{kk} min. 60 V
Bias voltage between anode and "off" cathode	V_{bias} max. 120 V
Bulb temperature	t_{bulb} max. +70 °C 1) min. -50 °C

1) Bulb temperatures below 10 °C result in a reduced life expectancy and changes in characteristics (see sheet 4).

In designing equipment to be used within a wide temperature range the use of "constant current operation" (high supply voltage with a high anode series resistor) is recommended.

