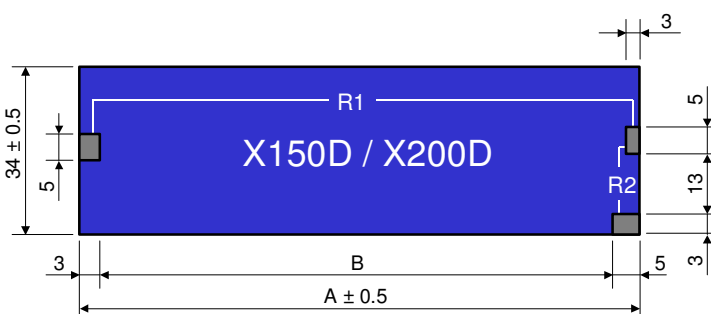
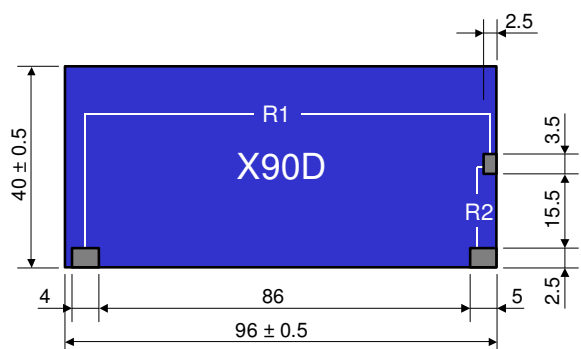


## High Voltage Dividers and Resistors Type XHVD High Precision, Low TC

Precision High Voltage Dividers and Resistors Type XHVD extend Nicrom Electronic's advanced proprietary high voltage resistor technology to larger devices than have previously been available on the market. These new resistors and dividers provide tight ratio temperature coefficients and tight ratio tolerances combined with extremely high working voltage. These specifications can provide important improvements in performance in many types of advanced electronic systems, including TWT power supplies, radar systems, X-ray systems, analytical equipment and high resolution CRT displays.

Precision High Voltage Dividers and Resistors Type XHVD are available in a broad range of custom resistance values, voltage ratios, voltage ratings, ratio tolerances and ratio temperature coefficients. A Single Resistor version is also available (X90, X150 and X200). The electrical and physical characteristics are the same with the exception of R2 and its solder pad which are omitted. Custom versions with double voltage division (for example 1:2'000:100) or other custom characteristics and configurations are available on request. Consult factory for details.



### Characteristics

Operating Voltage :	X90/D = 75 kV X150/D = 100 kV X200/D = 125 kV	(Nominal Voltage) Used in insulating mineral oil or epoxy
Nominal Power :	X90/D = 30 Watt X150/D = 35 Watt X200/D = 45 Watt	Used in insulating mineral oil or epoxy
Overload Voltage :	X90/D = 90 kV X150/D = 120 kV X200/D = 150 kV	15 Minutes Used in insulating mineral oil or epoxy
Short Term Overload :	X90/D = 110 kV X150/D = 150 kV X200/D = 200 kV	Peak Voltage Used in insulating mineral oil or epoxy
Main Resistance Value :	from 1KΩ to as high as 100GΩ	
Ratio :	1:1'000 to 1:20'000	X90D, X150D and X200D
Absolute Tolerances :	0.05%, 0.1%, 0.25%, 0.5%, 1%	
Ratio Tolerances :	0.05%, 0.1%, 0.25%, 0.5%, 1%	X90D, X150D and X200D
Absolute TC :	5, 10, 15, 25, 50, 100 ppm/°C	(Temperature Coefficient)
Ratio TC :	5, 10, 15, 25, 50 ppm/°C	X90D, X150D and X200D
Operating Temperature :	Oil +20°C ... +70°C	other on request
Storage Temperature :	-30°C ... +150°C	
Insulation Resistance :	> 10'000 MΩ	500 Volt 25 °C 75% relative humidity
Dielectric Strength :	> 1'000 Volt	25 °C 75% relative humidity
Thermal Shock :	Δ R/R < 0.1% typ., 0.25% max.	MIL Std. 202, method 107 Cond. C IEC 68 - 2 - 14
Overload :	Δ R/R < 0.1% typ., 0.25% max.	1,5 x Pnom 15 min. (do not exceed peak voltage)
Moisture Resistance :	Not applicable	(if used in oil or epoxy)
Load Life :	Δ R/R < 0.1% typ., 0.25% max.	1000 hour @ Nominal Power IEC 115 - 1
Absolute VCR :	1K .. 3G < 0.06 ppm/V 3G .. 30G < 0.15 ppm/V	Voltage Coefficient of Resistance (typical values, contact factory for details)
Ratio Definition :	R2 / ( R1 + R2 )	X150D and X200D
Encapsulation :	Screen Printed Silicon if used in Oil / Without encapsulation if used in Epoxy	
Solder Pads :	Palladium - Silver Option : 3 soldered wires, 50 mm length, diameter 1.3 mm (Type AWG 26 UL AWM Style 1007 CSA TR 64)	
Other Dimensions :	Type X150/D A = 127 mm B = 119 mm Type X200/D A = 160 mm B = 152 mm	