



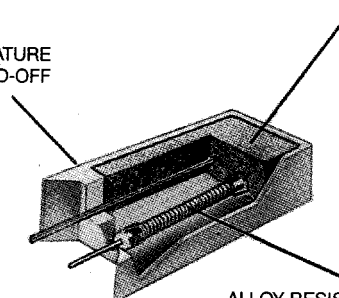
# SPACE SAVER

SLIM TYPE  
VERTICAL MOUNTING

# HMV / HMVL SERIES

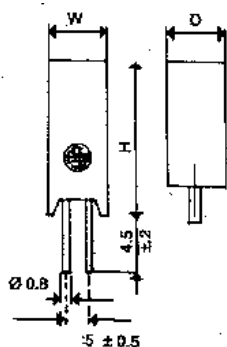
- Especially designed for crowded PCB's
- Ceramic standoff's

INORGANIC FIRE RETARDANT ENCAPSULANT  
FLAME PROOF HIGH TEMPERATURE CERAMIC CASE WITH STAND-OFF



ALLOY RESISTANCE WIRE ON FIBREGLASS SUBSTRATE / CERAMIC SUBSTRATE IN HMV SERIES / ALLOY RESISTANCE RIBBON IN HMVL SERIES

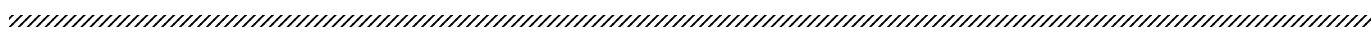
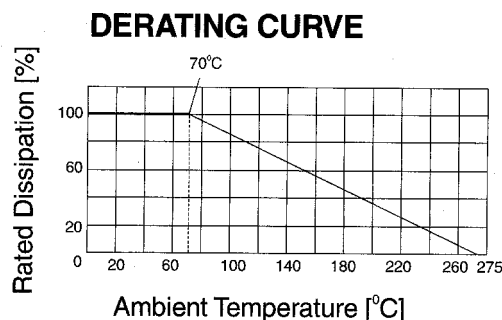
## PHYSICAL CONFIGURATION



HTR TYPE	POWER RATING at 70°C	DIMENSIONS(mm)				HMV SERIES		HMVL SERIES		WT. PER PC (gms)
		W ±1	H ±1	D ±1	P ±1	RESISTANCE RANGE MIN	RESISTANCE RANGE MAX	RESISTANCE RANGE MIN	RESISTANCE RANGE MAX	
M2	2.5W	11.0	20.5	7.0	5.0	R10	2K0	R004	R063	3.8
M4	4W	12.0	25.0	7.0	5.0	R10	3K1	R004	R063	5.0
M5	5W	12.0	30.0	8.0	5.0	R10	7K0	R004	R09	6.1
LV5	5W	13.0	25.5	9.0	5.0	R10	7K0	R005	R09	6.4
M7	7W	12.5	38.0	9.0	5.0	R10	15K	R006	R10	7.5
LV10	10W	16.0	35.0	12.0	7.5	R10	18K	R06	R10	15.5

## ELECTRICAL AND ENVIRONMENTAL CHARACTERISTICS / DATA

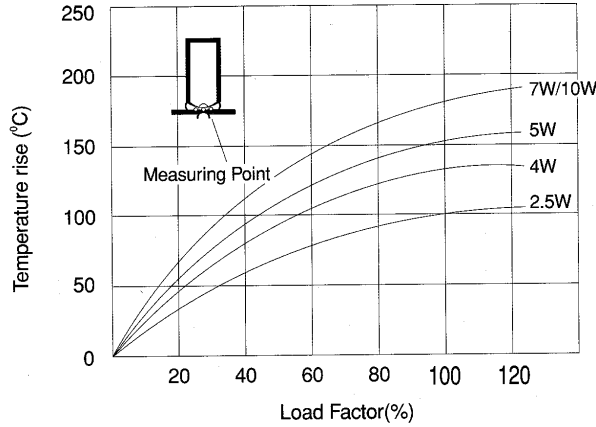
Test	Performance Requirements
Resistance tolerance	±10% [K]; ±5% [J] <1 ± 0.05Ω
Rated ambient temperature [see derating curve]	at 70°C full power dissipation
Temperature co-efficient	±80 to ± 550ppm/°C (depending upon resistance value)
Short time overload	Max. Δ R + 2% [+ 0.05Ω]
Moisture resistance	Max. Δ R + 5% [+ 0.05Ω]
Load life	Max. Δ R + 5% [+ 0.05Ω]
Ambient operating temperature range	- 25°C to + 155°C
Insulation resistance	> 1000 M (minimum)





**TEMPERATURE RISE AT SOLDER JOINT (AT FULL POWER)**

**Temperature rise chart**



**TYPICAL APPLI...**

The HMV series originated in the far east to provide low cost high power resistors, which could be vertically mounted firmly on to a PCB with stability provided by its ceramic legs.

These resistors find wide application in colour TV's, VCR's, Printers, Fax Machines, Invertors and power supplies.

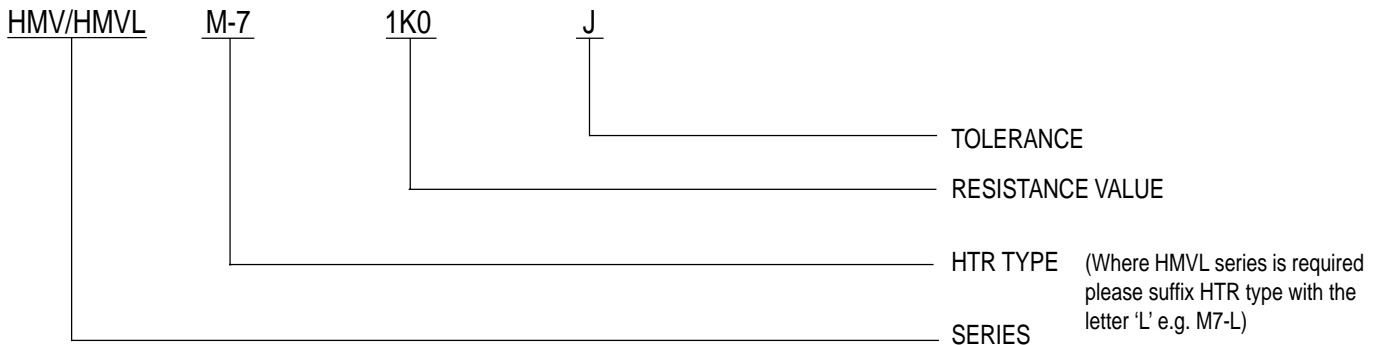
Due to the nature of their construction, they can withstand surges quite efficiently.

The HMVL series offers a practical solution in surge / current sensing applications where PCB space is at a premium and low inductance is required.

**NOTE :** Type LV10 can be provided with 1.0mm leads if required, please specify at the time of placing of the order.

**NOTE :** Due to recent technological advances, the ceramic cases used may be steatite ceramic / corderite ceramic / high alumina ceramic depending on the nature of application. Hence the ceramic cases may be off-white / variations of brown and variations of grey; colours which are inherent to these ceramic materials.

**ORDERING INFORMATION**



**Indian Technological Products Private Limited**

22-23, Type-B, Hartron Complex, Electronic City, Sector-18, Udyog Vihar, Gurgaon -122 016, Haryana (India)  
 Telephone: +91-124-4013646, 4013647 • Fax: +91-124-2398277  
 Email: sales@itpindia.in • [www.itpindia.com](http://www.itpindia.com) • CIN: U74899DL1986PTC023265

Specifications subject to change without notice.

