

Platinum Resistance Temperature Detector

MR 828 and 845

MR series elements are designed for applications where high vibration resistance as well as high temperature stability are vital. Typical industrial applications include analytical and medical equipment, chemical plants and mechanical equipment. Small tolerances on diameter allow problem free installation in protective tubes.

Type	Order Number	Diameter D in mm
1 Pt 100 MR 828	32 209 340	2,8 $\pm 0,3$
1 Pt 500 MR 828	32 209 341	2,8 $\pm 0,3$
1 Pt 1000 MR 828	32 209 342	2,8 $\pm 0,3$
2 Pt 100 MR 828	32 209 343	2,8 $\pm 0,3$
1 Pt 100 MR 845	32 209 346	4,5 $\pm 0,3$
1 Pt 500 MR 845	32 209 347	4,5 $\pm 0,3$
1 Pt 1000 MR 845	32 209 348	4,5 $\pm 0,3$
2 Pt 100 MR 845	32 209 349	4,5 $\pm 0,3$
2 Pt 1000 MR 845	32 209 351	4,5 $\pm 0,3$

The measuring point for the basic value is situated at 8 mm from the end of the sensor body

Specification	DIN EN 60751 (according to IEC 751), class B	
Nominal resistance	100 Ω; 500 Ω and 1000 Ω at 0°C	
Temperature range	-70°C to + 500°C (continuous operation)	
Temperature coefficient	TCR = 3850 ppm/K	
Leads	Pt clad Ni wire	
Lead lengths (L)	6 mm +2 / -1 mm	
Longterm stability	max. R ₀ -drift 0,1% after 1000 h at 500°C	
Vibration resistance	according to DIN EN 60751	
Environmental conditions	unhoused for dry environments only	
Insulation resistance	> 100 MΩ at 20°C; > 2 MΩ at 500°C	
Measuring current	100 Ω 0.3 to 1.0 mA; 500 Ω 0.1 to 0.7 mA 1000 Ω 0.1 to 0.3 (self heating has to be considered)	
Response time	Water (v = 0.4 m/s) Air (v = 2 m/s) MR 828: t _{0,5} = 0.9 s t _{0,9} = 2.7 s t _{0,5} = 12.3 s t _{0,9} = 39.5 s MR 845: t _{0,5} = 1.5 s t _{0,9} = 4.6 s t _{0,5} = 24.8 s t _{0,9} = 78.8 s	
Self heating	MR 828 (Pt 100/500/1000): 0,05 K/mW at 0°C MR 828 (2 Pt 100/1000): 0,16 K/mW at 0°C MR 845 (Pt 100/500/1000): 0,04 K/mW at 0°C MR 845 (2 Pt 100/1000): 0,08 K/mW at 0°C	
Packaging	blister reel	
Note	Other tolerances, values of resistance and wire lengths are available on request.	

We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

Heraeus Sensor Technology USA

1901 Route 130
North Brunswick, NJ 08902
Phone 732-940-4400 Fax 732-940-4445
Email info.hst-us@heraeus.com
www.hst-us.com