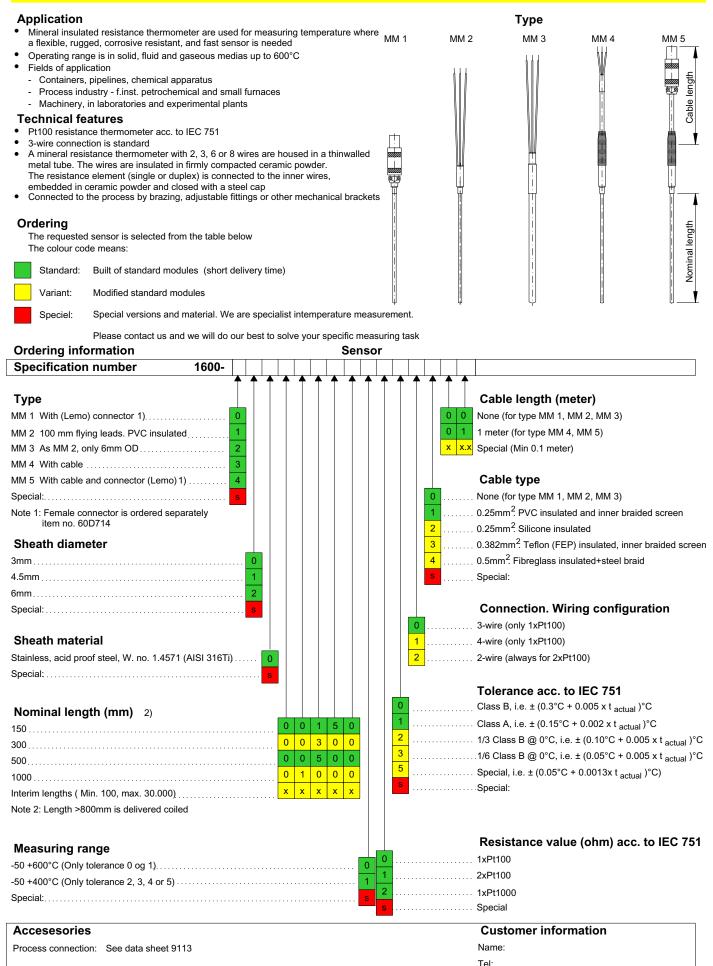


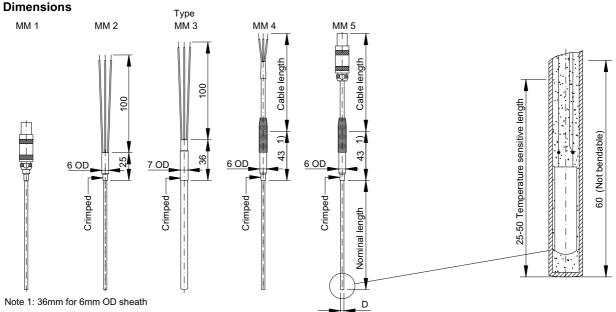
Resistance Thermometer MM

Data Sheet 1600

Mineral insulated

FRODE PEDERSEN





Properties for cable

p		
Insulation	Temperature range Application - 5 + 70°C General use	
PVC		
Silicone	-50 +180°C	Flexible, heat resistance
Teflon (FEP)	-50 +200°C	Corrosion and heat resistance
GLGLO. Fibreglass+steel braid	-20 +400°C	High temperature, not water tight

Properties for mineral insualated cable

reperties for iniliteral insulated subje			
Used in	W.no. 1.4571		
	max. 800°C		
Liquids	Recommended		
Acid	Recommended		
Sulphur atmospheres	Suitable		
Clorine atmospheres	Suitable		
Oxidizing atmospheres	Recommended		
Reducing atmospheres	Not recommended		
Carburizing atmospheres	Not recommended		

Bending radius				
Min. bending is				
5 x D @ repeatable bendings				
2 x D @ stationary bending				

Insulation resistance

Depending of temperature, length and diameter

Diameter	U	Rmin
mm	Voltage	M ohm x m
3 - 6	100	100

The insulation resistance is dependent upon the length of the cable.

Therfore, it is listed as a length related resistance in Mohm x m for length > 1 meter and Mohm for length <1 meter

Thermoelectric influence

Thermoelectric voltage < 10 µV @ 200°C

Response time

Sheath diameter	Response time in seconds (guidelines)				
	In water @	0.4m/sec.	In air @ 2m/sec.		
	t _{0.5}	t _{0.9}	t _{0.5}	t _{0.9}	
3.0	2	7	36	94	
4.5	4	12	42	126	
6.0	7	20	48	151	

Note:

The 0.5/0.9 time is the time that it takes the sensor to reach 50%/90% of the final value of a temperature change of a medium

If media and velocity are different from the ones stated, the time can change significantly.

Connection diagram - connector

Connection are	agrain - connice			
	2xPt100			
2-wire	3-wire	4-wire	2-wire	

Connection diagram - cable

	Connection diagn	aiii - cabic						
	PVC w/screen		Teflon w/screen		Silicone		GLGLO	
Screen connected to outer sheath		Screen connected to outer sheath						
	1xPt100	2xPt100	1xPt100	2xPt100	1xPt100	2xPt100	1xPt100	2xPt100
	2- 3- 4-wire	2-wire	2- 3- 4-wire	2-wire	2- 3- 4-wire	2-wire	2- 3- 4-wire	2-wire
	┌ ┌ Green	⊢ Green	┌ ┌ ┌ Red	r Red	┌ ┌ Blue	⊩ Blue	┌ ┌ ┌ White	⊢ White
	Yellow	└─ Yellow	Red/green	[⊔] Red/green	Yellow	Yellow	│	White
	│ ┌─ ├─ ├─ White	⊢ White	☐ ☐ ☐ White/green		⊩	⊢ Red	│	⊢ White
	│ └└ └─ Brown	└ Brown	│	└─ White	¹	[└] White	│	¹ White