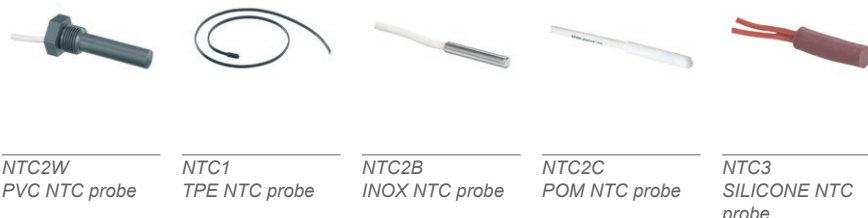


# › NTC probes

## Accessories for Millenium 3, Millenium Evo & em4

- › Direct connection with no converter on analog input
- › Easy-to-use and low cost temperature control solution
- › Fields of application: HVAC, compressors, geothermal systems, swimming pools, fountain
- › Analog input configured as potentiometer or 0-VCC via NTC functions in the M3 Soft or Crouzet Soft



Selection guide			
Type	Description	Measuring range	Part number
PVC	PVC NTC probe	-25 → +85 °C	<b>89 750 174</b>
AS	TPE NTC probe	-25 → +85 °C	<b>89 750 180</b>
Inox	INOX NTC probe	-35 → +120 °C	<b>89 750 182</b>
POM	POM NTC probe	-20 → +105 °C	<b>89 750 185</b>
Silicone	SILICONE NTC probe	0 → +180 °C	<b>89 750 186</b>

Accessories		
Description	Characteristics	Part-number
316 stainless steel protective sleeve	Operating temperature: -20 → +400 °C Operating pressure: 16 bar	<b>89 750 147</b>

	NTC2W	NTC1	NTC2B	NTC2C	NTC3
<b>General characteristics</b>					
Part number	89 750 174	89 750 180	89 750 182	89 750 185	89 750 186
Lot	Unit	X10	Unit	X25	Unit
<b>Environmental features</b>					
Measuring range	-25 → +85 °C		-35 → +120 °C	-20 → +105 °C	0 → +180 °C
Operating temperature	-25 → +85 °C		-40 → +180 °C (peak at 200 °C)		-40 → +200 °C
Storage temperature	-30 → +100 °C		-40 → +180 °C		-40 → +200 °C
Accuracy	See curve				
Repeatability	< ± 1%				
<b>Mechanical characteristics</b>					
Material	PVC	TPE (Thermoplastic Elastomer)	Inox AISI 305	POM (polyoxy-methylene)	Silicone
Protection rating (in accordance with IEC/EN 60529)	IP67		IP64	IP67	IP64
Insulation class	-		1	2	1
Dielectric strength (in accordance with IEC 335)	-		1000 V~ / 1 mn	1250 V~ / 1 mn	2000 V~ / 1 mn
Ohmic value	10 KΩ @ 25 °C				100 KΩ @ 25 °C
Cable	PVC	TPE (Thermoplastic Elastomer)	PVC (105 °C max)		Silicone 200 °C
Cable length	3000 mm / 118 inch	600 mm / 23.7 inch	3000 mm / 118 inch		800 mm / 31.5 inch
Wire section	2 x 0.22 mm <sup>2</sup> / 2 x AWG24				

	NTC2W	NTC1	NTC2B	NTC2C	NTC3
Cable external diameter	4.8 mm / 0.19 inch	4.1 x 1.7 mm / 0.17 x 0.07 inch	3.4 mm / 0.14 inch	3.8 mm / 0.15 inch	2 x Diameter 1.1 mm / 0.05 inch
Cable termination	Tinned bare termination				
Weight	Without packing: 1110 g With packing: 1210 g	Without packing: 610 g With packing: 660 g	Without packing: 500 g With packing: 570 g	Without packing: 14500 g With packing: 14600 g	Without packing: 65 g With packing: 135 g
Dimensions of the end cap	Threading 1/2", length 68 mm / 2.7 inch	5 x 6 mm, length 15 mm / 0.2 x 0.24 inch, 0.6 inch	Diameter x length 4.8 x 30 mm / 0.19 x 1.2 inch	Diameter x length 6 x 30 mm / 0.24 x 1.2 inch	Diameter x length 4.8 x 30 mm / 0.19 x 1.2 inch
Dimensions	With packing: 250 x 160 x 30 mm / 9.9 x 6.3 x 1.2 inch	With packing: 200 x 140 x 20 mm / 7.9 x 5.6 x 0.8 inch	With packing: 250 x 160 x 20 mm / 9.9 x 6.3 x 0.8 inch	With packing: 350 x 250 x 100 mm / 13.8 x 9.9 x 3.9 inch	With packing: 250 x 160 x 10 mm / 9.9 x 6.3 x 0.4 inch
Products certification	CE				
Environment	Reach, RoHS				

**Supply**

Nominal voltage	24 V <sub>DC</sub> (-10% / +10%)
Operating limits	21.6 - 26.4 V <sub>DC</sub>

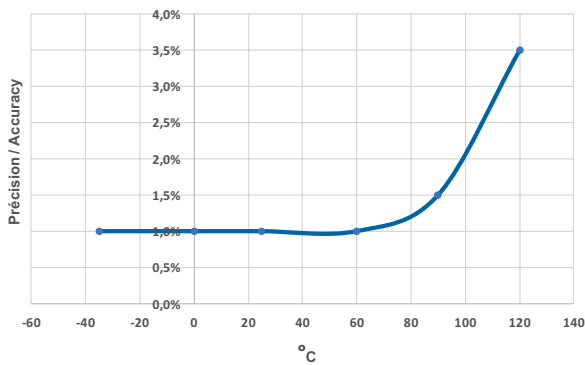
**Application**

Associated FB	NTC2 / CTN2	NTC1 / CTN1	NTC2 / CTN2	NTC3 / CTN3
Input configuration	Potentiometer or 0-V <sub>CC</sub>			
Value in the application when the input is at 0	Millenium 3: -3565; em4, Millenium EVO: -9999	Millenium 3: 0; em4, Millenium EVO: -9999	Millenium 3: -3565; em4, Millenium EVO: -9999	Millenium 3: 30; em4, Millenium EVO: -9999

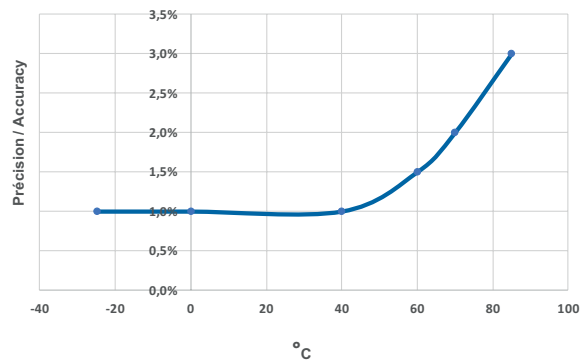
**Schemes**

**Curves**

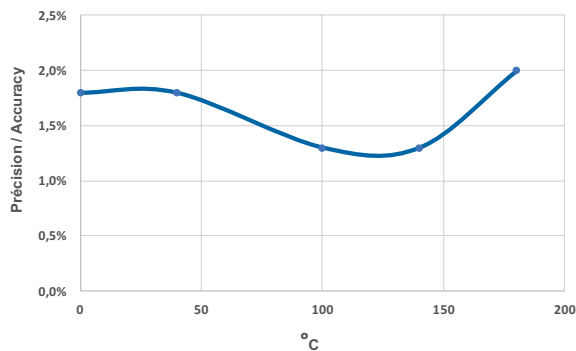
NTC2W - NTC2B - NTC2C



NTC1

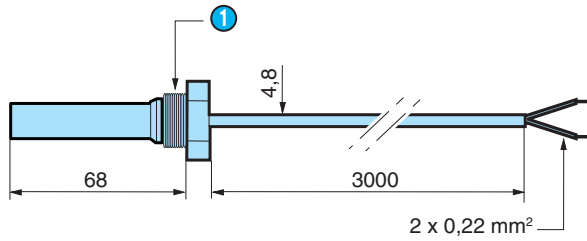


NTC3

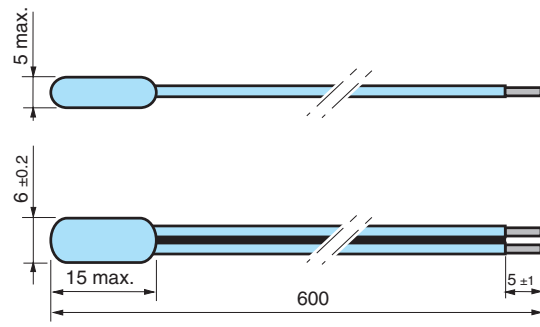


Dimensions (mm)

NTC2W

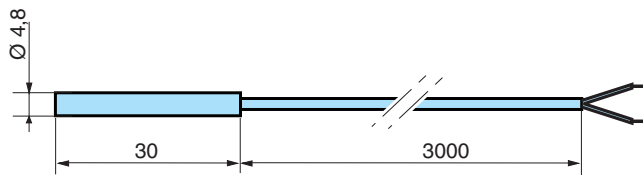


NTC1

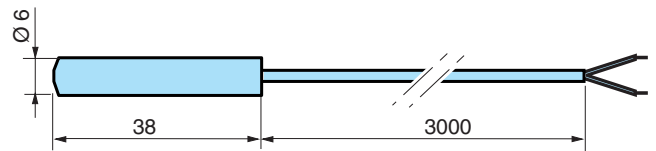


1 1/2 inch thread

NTC2B



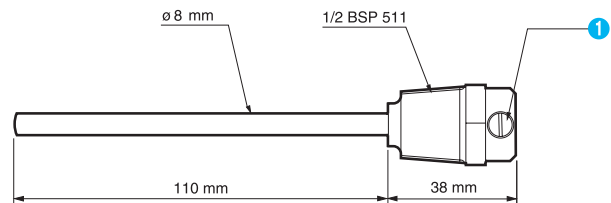
NTC2C



NTC3



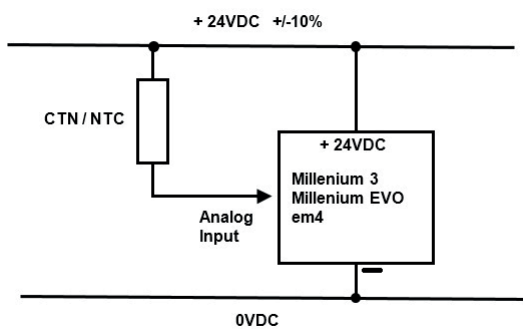
Accessories



1 M4 screw

Connections

NTC1 - NTC2W - NTC2B - NTC2C - NTC3



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