



## 2-wire head-mounting transmitter Mp82700

- Universal input
- Fully isolated
- Fully linearized
- High accuracy (0.1%)
- Small size
- Optional plug-in readout & head
- ATEX and FM approval available
- 5 Year warranty



The Mp82700 is the industry's most advanced 2wire head-mounting microprocessor-based transmitter. Able to fit in a small, standard connection head, it is easily programmed via a personal computer with our "Point 'N Click" software.

The Mp82700 incorporates highly advanced microprocessor technology to provide a high accuracy. It is scalable over the entire range of 8 RTD's and 12 thermocouple types, as well as accepting millivolt and resistance inputs.

Features include: small minimum spans, complete isolation, selectable upscale/downscale for sensor break, selectable voltage or temperature linearity, RFI protected (DC to 1 GHz), a five year warranty against failure, and optional intrinsically safe. It even has an optional plug-in loop-powered readout and connection head with window.

You no longer have to stock several different transmitters when a single, high accuracy unit can meet all of your requirements. Easily programmed, the Mp82700 can be used for all your different sensor and range requirements.

Order	Information:
Model	Mp82700

Options: -D-EX-FM-CW-IF

Options:

- -D = Plug-in Loop-powered Readout
- -EX = Intrinsically safe version (ATEX Ex II 1 G EEx ia IIC T4..T6)
- -FM = Intrinsically safe version (IS/I/1/ABCD/T6)
- -CW = Connection Head with Window
- -IF = Interface and software



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## **Specifications Mp82700**

Input RTD	Pt100, Pt500, Pt1000, Ni100, Ni500, Ni1000, Cu10, Cu100		
Input T/C	K,J,L,T,U,E,R,S,B,C,D,N		
Other inputs	Ohm, mV		
Minimum Span	See table below		
Output	420 mA or 204 mA		
Linearization	On / Off		
Supply	1040 VDC, Polarity Protected		
Supply Effect	0.001%/V		
Max. Ripple	10 V PP. Min Vbat=10 VDC		
Zero Drift	± 0.01%/°C or ±0.02°C/°C		
Span Drift	± 0.005%/°C or ±0.01°C/°C		
Long Term Drift	± 0.05%/Year		
Cold Junction Drift	± 0.01°C/°C		
Excitation Current, RTD	0.1 mA		
Sensor Lead Resistance, RTD	500 Ohm max.		
Sensor Lead Resistance Effect	0.001°C/Ohm		
Sensor Lead Resistance, T/C	10,000 Ohm max.		
Open Circuit Detection	Upscale / Downscale		
Load Capability	Vbat-10V / 20 mA		
Startup Time	20 sec.		
Warmup Time	5 Min.		
Isolation	500 VDC		
Ambient Operating Temp.	-40+ 85°C.		
Storage Temperature	-40+100°C.		
Ingress Protection	IP30		
Housing Material	Zinc Alloy (ZAMAK 5) epoxy coated		
Housing Dimension	43mm Dia. x 27mm H.		
Housing Dimension with Read-Out	43mm Dia. x 36mm H.		

## SENSOR RANGES

Sensor type	Temp. Min. °C	Temp. Max. °C	Span Min. °C
K (NiCr-Ni)	-200	1370	50
J (Fe-CuNi)	-150	1200	50
L (DIN Fe-CuNi)	-150	900	50
T (Cu-CuNi)	-200	400	50
U (DIN Cu-CuNi)	-100	600	50
E (NiCr-CuNi)	-270	1000	50
S (Pt10%Rh-Pt)	0	1765	250
R (Pt13%Rh-Pt)	0	1765	250
B (Pt30%Rh-Pt6%Rh)	0	1820	600
Pt100 IEC751	-200	850	25
Pt500 IEC751	-200	850	25
Pt1000 IEC751	-200	850	25
Ni100 IEC751	-60	250	25
Ni500 IEC751	-60	250	25
Ni1000 IEC751	-60	250	25
Cu10	-200	250	25
Cu100	-200	250	25
C (W5%Re-W26%Re)	0	2300	150
D (W3%Re-W25%Re)	0	2300	150
N (NiCrSi-NiSiMg)	0	1300	50
mV	0	1000	10
Ohm	0	10000	100