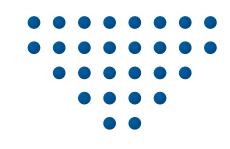


PTC 2k



HVAC CONTROLS AND POWER

All-purpose temperature sensors

ETF is a range of temperature sensors designed for use in heating, ventilation and cooling systems, etc.

No one temperature sensor satisfactorily meets all needs. The requirements to be met must therefore be carefully considered.

Is temperature to be measured in a swimming pool complex, for example, or in an aggressive liquid or flue gas?

All major parameters have been taken into consideration in the design of our ETF sensors, including: measured temperature, mechanical load, corrosion, erosion and required response time.

APPLICATIONS

The ETF range consists of a variety of temperature sensors, each specially designed and engineered to suit its own particular purpose:

ETF-195 is suitable for measuring floor temperature.

ETF-395 is suitable for aggressive liquids and gases.

ETF-495 is suitable for liquids and gases.

ETF-595 is a universal sensor suitable for machine parts.

ETF-695 is a surface sensor for pipes and machine parts.

ETF-795 is suitable for measuring outdoor temperature.

ETF-895 is a sensor suitable for non aggressive liquids.

ETF-995–H is a room temperature sensor in OJ design.

 ${\it ETF-1195} \ is \ a \ multi-purpose \ sensor \ with \ mounting \ flange.$

ETF-1395 is an industrial sensor suitable for liquids, IP54.

ETF-1695 is a surface sensor for piping systems.

ETF-1795 is an outdoor temperature sensor.

ETF-1895A is a surface temperature sensor.

ETF-2495 is an industrial sensor for liquids and gases, IP54.

ETF-2795 is suitable for outdoor or wet environments, IP54.

ETF-2995 is an industrial sensor for aggressive media.

ETF sensors are designed to provide our customers with an advantageous combination of high quality, accurate measurement and low life cycle costs.

Sensor	Туре	Dimensions	Sensor element (PTC 2kΩ@25°C)	Material	Applications
	ETF-195	Ø6.5 mm, L30 mm 2.5 m cable	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Polyolefin Ceramic Stainless AISI 316	Universal sensor e.g. floor sensor
	ETF-395	Ø6.5 mm, L100 mm 1/4" pipe, 2.5 m cable Max. pressure 6 atm	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Stainless AISI 316	Aggressive liquids
	ETF-495	Ø6.5 mm, L100 mm 1/4" pipe, 2.5 m cable Max. pressure 6 atm	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Galvanized brass	Non-aggressive liquids and media
	ETF-595	Ø6.5 mm, L50 mm 2.5 m cable Max. pressure 0.5 atm	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Galvanized brass	Universal sensor Machine parts
(c) 1 (d)	ETF-695	8x12 mm Hole Ø3.5 mm 2.5 m cable	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Copper	Machine parts Surfaces
OF THE STATE OF TH	ETF-795	86 x 45 x 35 mm IP54	PTC 2k 25°C = 2000 Ω Range -20°C-+70°C	ABS plastic Melamine	Wet environments Outdoors
	ETF-895	Ø6.5 mm, L200 mm ¼" pipe, 2.5 m cable Max. pressure 6 atm	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Galvanized brass	Non-aggressive liquids and media
	ETF-995-H	80 x 80 x 16 mm IP20	PTC 2k 25°C = 2000 Ω Range -20°C-+70°C	Bayblend noryl	Room sensor Dry rooms Indoors
	ETF-1195	Ø6.5 x 200 mm Flange 2.5 m cable	PTC 2k 25°C = 2000 Ω Range -30°C-+80°C	Galvanized brass	Non-aggressive liquids and gases
	ETF-1395	Ø8 mm, L200 mm, IP54 DIN type B head Max. pressure 6 atm	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Stainless AISI 316	Very high temperatures, machine parts, industry
Harrison of the Co. St. St. St. St. St. St. St. St. St. St	ETF-1695	60 x 30 x 30 mm, IP54 Max. pipe diam. 50 mm Incl. clamp	PTC 2k 25°C = 2000 Ω Range -50°C-+70°C	Polycarbonate Stainless AISI 316	Pipe surfaces
THE COLOR OF	ETF-1795	55 x 52 x 27 mm IP54	PTC 2k 25°C = 2000 Ω Range -40°C-+70°C	Polycarbonate	Wet environments Outdoors Non-aggressive
•	ETF-1895	Ø12.0 x 40 mm 2.5 m cable Flat on sensor side	PTC 2k 25°C = 2000 Ω Range -20°C-+70°C	Polycarbonate	Universal sensor for surfaces
San I	ETF-2495	Ø6.5 mm, L150 mm 45 x 50 x 31 mm PG9, IP54	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Aluminium, Galvanized brass	Industry, machine parts
St. Co.	ETF-2795	Ø6.5 mm, L20 mm 45 x 50 x 31 mm PG9, IP54	PTC 2k 25°C = 2000 Ω Range -40°C-+70°C	Aluminium, Galvanized brass	Wet environments Outdoors
18.	ETF-2995	Ø6 mm, L100 mm 2.5 m cable	PTC 2k 25°C = 2000 Ω Range -40°C-+125°C	Stainless AISI 316	Very high temperatures
3	ETFL-2	Ø8 mm L100 mm ¼" thread		Galvanized brass	Sensor pocket Non-aggressive

PTC 2k resistance table							
-20°C = 1366Ω	11°C = 1787Ω	16°C = 1861Ω	21°C = 1938Ω	26°C = 2016Ω	35°C = 2162Ω	$60^{\circ}\text{C} = 2600\Omega$	
-10°C = 1494Ω	12°C = 1802Ω	17°C = 1876Ω	22°C = 1954Ω	27°C = 2032Ω	40°C = 2246Ω	70°C = 2788Ω	
0°C = 1629Ω	13°C = 1817Ω	18°C = 1892Ω	23°C = 1968Ω	28°C = 2048Ω	45°C = 2331Ω	80°C = 2985Ω	
5°C = 1699Ω	14°C = 1831Ω	19°C = 1907Ω	24°C = 1984Ω	29°C = 2064Ω	50°C = 2419Ω	90°C = 3188Ω	
10°C = 1771Ω	15°C = 1846Ω	20°C = 1922Ω	25°C = 2000Ω	30°C = 2080Ω	55°C = 2509Ω	100°C = 3400Ω	

CE MARKING

ETF sensors meet the requirements contained in the following directive:

MACH	HINERY DIRECTIVE	
89/3	392/EEC	