

## Sauna/Extreme Temperature Transmitters

for HVAC & refrigeration systems

TES LU and TES LL transmitters are designed for automatic HVAC and refrigeration systems, especially for demanding conditions such as saunas, cold-rooms, freezers and stores.

Temperature is detected by a high quality Pt100 element and transmitted to the control system using a 0..10V (TES LU) or 4..20mA (TES LL) signal. The Pt100 element is mounted outside the housing to provide maximum response. The 2-wire/3-wire transmitter is located in a separate housing.

Housing is made of weather-proof aluminium, IP 67, which also ensures good mechanical durability for the sensor.

**Note:** In hot room installations make sure that the cable, connecting sensor and transmitter, tolerates the high ambient temperature (up to 120°C).



Model Types	Model	Description
	<b>TES-LU</b>	PT100 Temperature Transmitter for Extreme Conditions, 0..10Vdc output
	<b>TES-LL</b>	PT100 Temperature Transmitter for Extreme Conditions, 4..20mA output
<b>Technical Data</b>	Sensor Element	Pt100 EN 60751/B
	Accuracy	±0.5°C (at 50°C)
	Housing	Aluminium
	Protection class	IP 67, cable entry or stem down
	Cable entry	M16
	Ranges	0°C...+50°C, 0°C...+100°C, -50°C...+50°C, -50°C...+150°C
	Transmitter (separate enclosure)	IP44, 2-wire (TES LL) IP44, 3-wire (TES LU)
Supply Voltage	15..35Vdc (TES LL) 24Vac (TES LU)	
Agency Approvals	Emissions: EN50081-1: 1992 Immunity: EN50082-2: 1995 Safety Directive: 89/336/EEC	
<b>Wiring Terminals (TES LU)</b>	1	Supply 24Vac
	2	Common (0V)
	3	Output 0-10Vdc, < 2mA

Temperature/Output

0/50°C0	0/100°	-50/50°C	-50/150°C	mA (LL)	V (LU)
0	0	-50	-50	4	0
25	50	0	50	12	5
50	100	50	150	20	10
<b>on</b>	<b>on*</b>	<b>off</b>	<b>off</b>	<b>Switch S1</b>	
<b>off</b>	<b>on*</b>	<b>on</b>	<b>off</b>	<b>Switch S2</b>	

\* 0/100°C = factory setting

Dimensions

