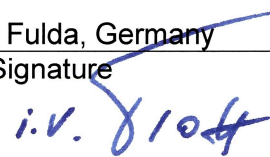


<h2>Certificate</h2>	
Environmental Testing According to DIN EN 50155 and DIN EN 50121	
Date of issue	June 11, 2019
Number of pages	1 page
Applicant's name	JUMO GmbH & Co. KG
Address	Moritz Juchheim Strasse 1, 36039 Fulda, Germany
Manufacturer	JUMO GmbH & Co. KG
Address	Moritz Juchheim Strasse 1, 36039 Fulda, Germany
Product description	Electronic thermostat eTRON T100
Brand	JUMO
Model and/or type	701052/Railway application

Tests according to DIN EN 50155:2018				
	Test	Standard	Conditions	Result
1	Power supply	EN 50155:2018	0.6*U _{Nenn} 1.4*U _{Nenn}	Passed
2	Isolation	EN 50155:2018	24 V device: 500 V AC / 750 V DC; 1 min; 20 MOhm 230 V device: 1500 V AC; 1 min; 20 MOhm	Passed
3	Cold	EN 60068-2-1:2008	-40 °C, 2 h	Passed
4	Dry heat	EN 60068-2-2:2008	55 °C, 8 h	Passed
5	Damp heat	EN 60068-2-30:2006	55 °C; 100 % RH, 2 x 24 h	Passed
6	IP code	EN 60529:2013	IP20	Passed
7	Interference emission	EN 50121-3-2:2016	---	Passed
8	Interference immunity ESD	EN 61000-4-2:2009	6 kV contact 8 kV air	Passed
9	Interference immunity HF field	EN 61000-4-3:2010	80-2800 MHz; 20 V/m	Passed
10	Interference immunity Burst	EN 61000-4-4:2012	2 kV; 5 kHz	Passed
11	Interference immunity Surge	EN 61000-4-5:2017	1 kV L-L 2 kV L-PE	Passed
12	Interference immunity HF current	EN 61000-4-6:2014	0.15-80 MHz; 10 V	Passed
13	Service life	EN 61373:2010	Cat. 1B 5.72 m/s ² ; 5-150 Hz; 5 h	Passed
14	Shock test	EN 61373:2010	Cat. 1B 50 m/s ² ; 30 ms; 3 shocks	Passed
15	Fire protection	EN 45545-2:2013 + A1:2015	HL1 to HL3	Passed

JUMO GmbH & Co. KG Moritz Juchheim Strasse 1, 36039 Fulda, Germany	
Date	Signature
Fulda, June 11, 2019	 Christoph Trott