DCT
ACTIONABLE TELEMATICS

TEMPERATURE SENSOR

The temperature sensor is an accessory that allows up to 3 simultaneous temperature measurements with ± 0.4°C accuracy. Temperature thresholds can be established on the device's configuration that allows you to combine with other conditions for highly customized event reporting. The temperature sensor is fully integrated with the Pegasus Gateway and its APIs.

PART NUMBER
7005-2

Report temperature values

Establish thresholds and create events

Perform different actions based on thresholds
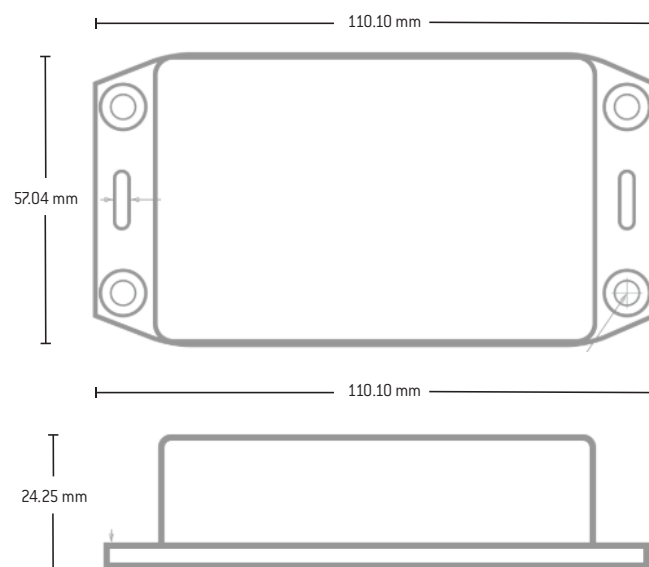
Dashboard of your fleet's temperature

View the temperature during a trip

Fully integrated with the Pegasus Gateway and its APIs.
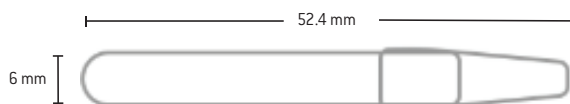
TECHNICAL SPECIFICATIONS

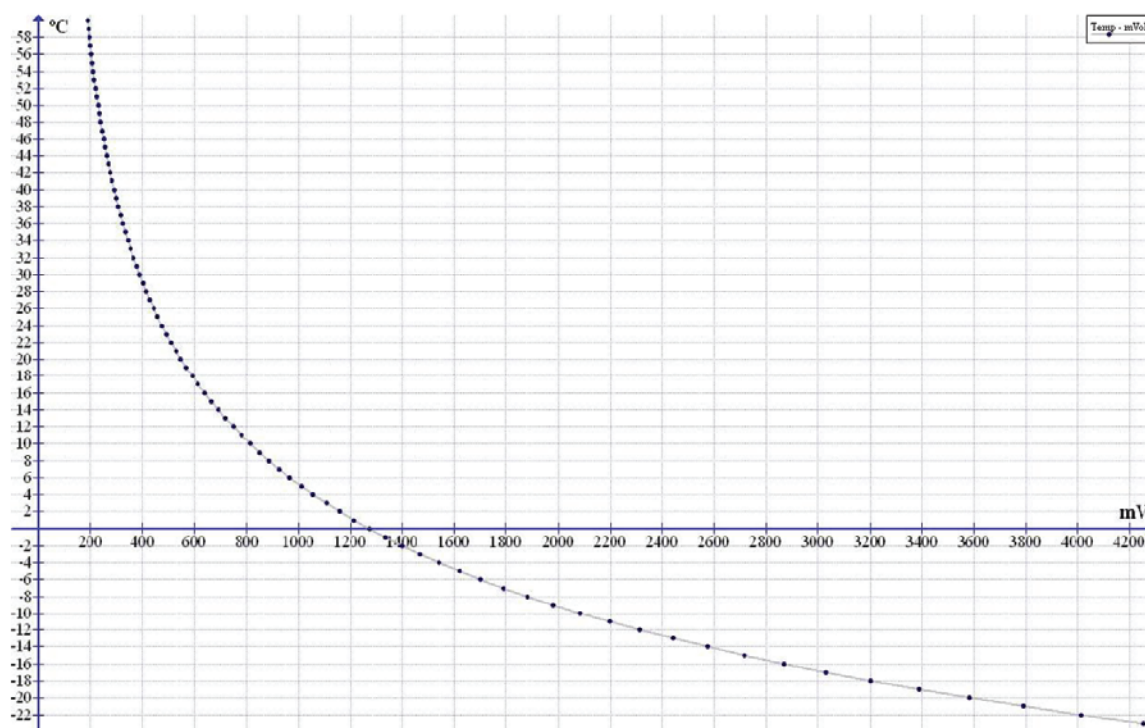| ITEM	PARAMETER
Temperature Accuracy	60°C to 0°C ± 0.2°C
	0°C to -12°C ± 0.3°C
	-12°C to -23°C ± 0.4°C
Temperature Range	-23°C to 60°C
Dimensions (L x W x H)	110.10 mm x 57.04 mm x 24.25 mm
Sensor Resistance at 0°C	9795 Ω
Sensor Resistance at 100°C	204.0 Ω

DIMENSIONS

ITEM	PARAMETER
Length	Cable Length Approx. 9 Meters [24 AWG]
Size of 1 Probe	(h) 52.4 mm (w) 6 mm

52.4 mm

6 mm

DEVICE DIMENSIONS

110.10 mm

57.04 mm

110.10 mm

24.25 mm

GRAPH WITH TEMPERATURE & milliVOLT VALUES

TEMPERATURE / mV TABLE

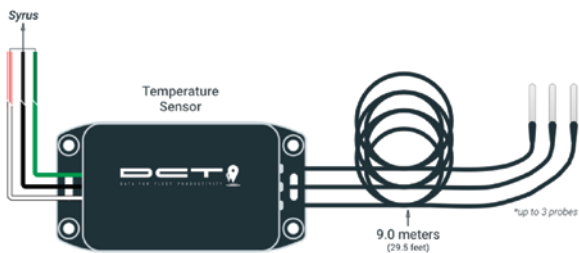THE VALUES SHOWN IN THE TABLE ABOVE HAVE AN ERROR MARGIN OF:
60°C to 0°C: ± 0.2°C   0°C to -12°C: ± 0.3°C   -12°C to -23°C: ± 0.4°C

MILLIVOLTS	TEMP(°C)	MILLIVOLTS	TEMP(°C)	MILLIVOLTS	TEMP(°C)	MILLIVOLTS	TEMP(°C)
189	60	299	39	590	18	1467	-3
192	59	307	38	613	17	1540	-4
195	58	315	37	638	16	1618	-5
199	57	324	36	663	15	1700	-6
203	56	334	35	690	14	1788	-7
207	55	344	34	718	13	1881	-8
211	54	354	33	749	12	1980	-9
215	53	365	32	780	11	2085	-10
219	52	377	31	814	10	2196	-11
224	51	389	30	849	9	2314	-12
229	50	401	29	886	8	2440	-13
234	49	414	28	925	7	2574	-14
239	48	428	27	967	6	2716	-15
245	47	443	26	1010	5	2868	-16
250	46	458	25	1057	4	3030	-17
256	45	474	24	1106	3	3202	-18
263	44	491	23	1158	2	3386	-19
269	43	509	22	1213	1	3583	-20
276	42	528	21	1271	0	3791	-21
283	41	548	20	1333	-1	4014	-22
291	40	569	19	1398	-2	4252	-23

PINOUT

COLOR	CABLE	DESCRIPTION
🟩 GREEN	VIN (IN)	Main Power: 12 Volts - 32 Volts. Connect directly to Syrus green cable
⬛ BLACK	GROUND (GND)	Connect directly to Syrus ground cable from harness (Brown cable on Syrus 3, and black cable on Syrus 2)
⬜ WHITE	1-WIRE (IN/OUT)	1-wire communication cable with Syrus. Connect directly to Syrus 1-wire cable (red/white color)

INSTALLATION DIAGRAM

SAFETY PRECAUTIONS

The analog/temperature sensor accessory has protection against transient voltage spikes and reverse polarity, but a professional installation from a trusted technician is required when working with wiring inside vehicles.

INSTALLATION TIPS

When installing the temperature sensor make sure you don't pinch off any of the sensors with any nearby door hinges.

Do not install the sensor or it's probe near a light source or the fan, placing it in the middle of the room/container you are trying to measure provides the best results.

If installing in a refrigerated truck, the recommended location to install the sensor is inside the refrigerated box above the cabin.

The 1-wire cable is susceptible to electrical interferences, make sure if you're passing it through the refrigerated box you should consider using a CAT5E UTP cable as these cables reduce electrical interferences and are shielded for these types of applications.

It is important not to place the sensors next to any metal surface as these surfaces have a high thermal conductivity and will give you elevated temperature results.

It is important that the main power of the sensor does not fluctuate, as fluctuations in the power can lead to undesired temperature readings.

The probes can be mounted with small cable plastic clamps such as these.

FAQ

QUESTION	ANSWER
How long can I extend the 1-wire cable to install inside a cabin?	The 1-wire cable from the Syrus to the temperature sensor can be extended up to 20 meters. Make sure you use the same cable gauge or a thicker gauge when extending this cable. Consider using a twisted cable like UTP CAT5e.