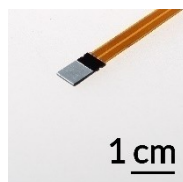


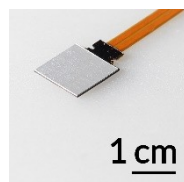
# gSKIN<sup>®</sup> Heat Flux Sensors for R&D

## FEATURES

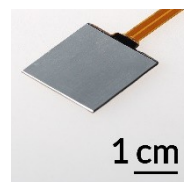
- Ultra-high resolution of thermal energies and temperature differences
- Low invasiveness & thickness
- Versions with connectors compatible with all gSKIN<sup>®</sup> DLOG Data Loggers
- All sensors with conductive heat flux calibration cohering to ISO 8301



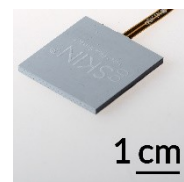
gSKIN<sup>®</sup>-XM



gSKIN<sup>®</sup>-XP



gSKIN<sup>®</sup>-XI



gSKIN<sup>®</sup>-XO

Product Name	gSKIN <sup>®</sup>		gSKIN <sup>®</sup>		gSKIN <sup>®</sup>		gSKIN <sup>®</sup>	
	XM 26 9C	XM 27 9C	XP 26 9C	XP 27 9C	XI 26 9C	XI 27 9C	XO 63 7C	XO 64 7C
Article Number	A-044335	A-044338	A-044573	A-044577	A-044627	A-044629	A-044501	A-044505
Detector Type	Thermoelectric		Thermoelectric		Thermoelectric		Thermoelectric	
Surface Material (Sensing Area)	Anodized Aluminum		Anodized Aluminum		Anodized Aluminum		Anodized Aluminum	
Sensing Dimensions (a x b x d) [mm x mm]	4.4 x 4.4 x 0.5		10.0 x 10.0 x 0.5		18.0 x 18.0 x 0.5		30.0 x 30.0 x 2.2	
Heat Flux Range Min / Max [kW/m <sup>2</sup> ]	-125 / 125		-145 / 145		-140 / 140		-35 / 35	
Noise Equivalent Heat Flux <sup>a</sup> per area [W/m <sup>2</sup> ] / absolute [μW]	0.250 / 4.8		0.038 / 3.8		0.013 / 4.1		0.021 / 18.8	
Heat Flux Resolution per area [W/m <sup>2</sup> ] / absolute [μW] with gSKIN <sup>®</sup> DLOG <sup>b</sup>	0.325 / 6.3		0.050 / 5.0		0.016 / 5.3		0.027 / 24.4	
Temperature Difference Resolution [μK]	~199		~29		~9		~56	
Min. Sensitivity (S) [μV/(W/m <sup>2</sup> )]	1.5		7.0		22.0		15.0	
Temperature Dependence of S [%/°C]	0.127		0.127		0.127		0.127	
Response Time (0-95%) [s]	0.7		0.7		0.7		n/a	
Electrical Resistance [Ohm]	<20		<150		<500		<250	
Absolute Thermal Resistance <sup>c</sup> [K/W]	~41.6		~7.6		~2.2		~3.0	
Max. Compressive Force when clamped [kgf]	<2		<10		<32		<90	
Operating Temperature Range Min/Max [°C]	-50 / 150		-50 / 150		-50 / 150		-50 / 150	
Calibration Temperature Range Min/Max <sup>d</sup> [°C]	-30 / 70		-30 / 70		-30 / 70		-30 / 70	
Calibration Accuracy [±%]	3		3		3		3	
Homogeneity <sup>e</sup> [±%]	1		1		1		1	
Linearity with Power [±%]	1		1		1		1	
Flexprint Length (f) [cm]	5		5		5		5	
Cable Length (c) [cm] (Connector)	100 (no) 	100 (yes) 	100 (no) 	100 (yes) 	100 (no) 	100 (yes) 	100 (no) 	100 (yes) 

<sup>a</sup> Experimentally evaluated values under optimal steady state conditions.

<sup>b</sup> Expected heat flux resolution using the gSKIN<sup>®</sup> DLOG-4219.

<sup>c</sup> Based on +/- 30% range

<sup>d</sup> Conductive heat flux calibration cohering to the ISO8301 standard with mean temperature of 22.5 °C.

<sup>e</sup> Position dependent signal change across sensing area.

