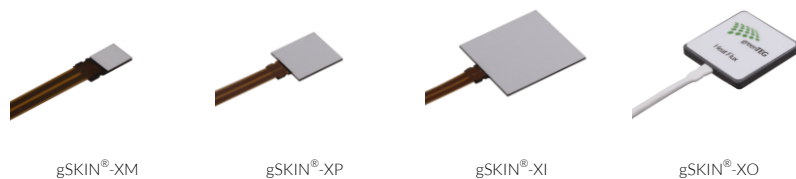


# gSKIN<sup>®</sup> Heat Flux Sensors for R&D

## 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



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 66 7C	XO 67 7C
Article Number	A-044336	A-044339	A-044573	A-044577	A-044628	A-044630	A-044714	A-044717
Detector Type	Thermoelectric		Thermoelectric		Thermoelectric		Thermoelectric	
Surface Material (Sensing Area)	Anodized Aluminum		Anodized Aluminum		Anodized Aluminum		Silicone	
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 2.5	
Heat Flux Range Min / Max [kW/m <sup>2</sup> ]	-150 / 150		-150 / 150		-150 / 150		-25 / 25	
Noise Equivalent Heat Flux <sup>a</sup> [W/m <sup>2</sup> ] / absolute [μW]	0.340 / 6.6		0.073 / 7.3		0.023 / 7.5		0.073 / 65.7	
Heat Flux Resolution per area [W/m <sup>2</sup> ] / absolute [μW] with gSKIN <sup>®</sup> DLOG <sup>b</sup>	0.41 / 7.9		0.09 / 9.0		0.03 / 9.7		0.09 / 81.0	
Temperature Difference Resolution [μK]	~140		~30		~10		~230	
Min./Avg. <sup>c</sup> Sensitivity (S) [μV/(W/m <sup>2</sup> )]	1.5 / 4.0		10.0 / 20.0		35.0 / 65.0		10.0 / 20.0	
Temperature Dependence of S [%/°C]	0.25		0.25		0.25		0.25	
Response Time (0-95%) [s]	0.7		0.7		0.7		n/a	
Electrical Resistance [Ohm]	<20		<100		<400		<100	
Absolute Thermal Resistance <sup>d</sup> [K/W]	~36.0		~3.5		~2.2		~2.8	
Max. Compressive Force when clamped [kgf]	< 2		<10		<32		n/a (not clampable)	
Operating Temperature Range Min/Max [°C]	-50 / 150		-50 / 150		-50 / 150		-40 / 100	
Calibration Temperature Range Min/Max <sup>e</sup> [°C]	-30 / 70		-30 / 70		-30 / 70		-30 / 70	
Calibration Accuracy [±%]	3		3		3		3	
Homogeneity <sup>f</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> Guaranteed minimum heat flux resolution using the gSKIN<sup>®</sup> DLOG-4219.  
<sup>c</sup> Only a reference point  
<sup>d</sup> Based on +/- 30% range  
<sup>e</sup> Conductive heat flux calibration cohering to the ISO8301 standard with mean temperature of 22.5 °C.  
<sup>f</sup> Position dependent signal change across sensing area.

