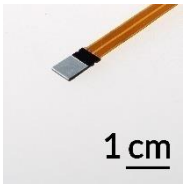
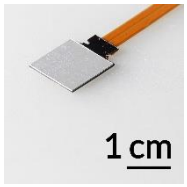
gSKIN® Heat Flux Sensors for R&D

FEATURES

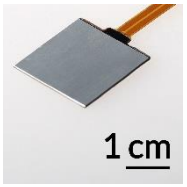
- Ultra-high resolution of thermal energies and temperature differences
- Low invasiveness & thickness
- Versions with connectors compatible with all gSKIN® DLOG Data Loggers
- All sensors with conductive heat flux calibration cohering to ISO 8301



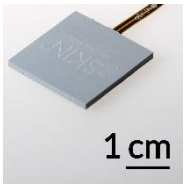
gSKIN®-XM



gSKIN®-XP



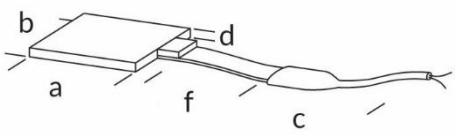
gSKIN®-XI



gSKIN®-XO

	gSKIN®		gSKIN®		gSKIN®		gSKIN®	
Product Name	**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 2.0	
Heat Flux Range Min / Max [kW/m^2]	-150 / 150		-150 / 150		-150 / 150		-25/ 25	
Noise Equivalent Heat Flux[a] per area [W/m^2] / 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^2] / absolute [µW] with gSKIN® DLOG[b]	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. Sensitivity (S) [µV/(W/m^2)]	1.5		7.0		22.0		7.0	
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[c] [K/W]	~36.0		~7		~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[d] [°C]	-30 / 70		-30 / 70		-30 / 70		-30 / 70	
Calibration Accuracy [±%]	3		3		3		3	
Homogeneity[e] [±%]	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)

[a] Experimentally evaluated values under optimal steady state conditions.
[b] Guaranteed minimum heat flux resolution using the gSKIN® DLOG-4219.
[c] Based on +/- 30% range
[d] Conductive heat flux calibration cohering to the ISO8301 standard with mean temperature of 22.5 °C.
[e] Position dependent signal change across sensing area.



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