





Model No	ZF5283	ZF5483	ZF5583	ZF5K83	ZF5C83	ZF5D83	ZF5P13	ZF5P83	HUB-D	HUB-I
<b>Description</b>	Industrial RS232, All-in-one housing	Industrial RS485, All-in-one housing	Industrial 0~5Vdc, All-in-one housing	Industrial J,K thermister All-in-one housing	Industrial 0~20mAdc, 4 wire housing	Industrial 4~20mAdc, 2 wire housing	Industrial IRT, matching HUB-D or HUB-I	Industrial IRT, matching HUB-D or HUB-I	An Interface between TNO & PC(RS232)	RS232 or RS485 0~20mA; 4~20mA; 0~5V; K-type
<b>Status</b>	Developing	Developing	#REF!	Apr-06	Developing	Apr-06	Production	Developing	Developing	Developing
<b>Photo</b>										
<b>Characteristic:</b>	RS232	RS485	10mV/°C	K type	0~20mA/4~20mA 4 wire	4~20mAdc, 2 wire	SPI Protocol of RII	SPI Protocol of RII	LCD Display	LCD Display
<b>Measurement Range</b>	-50~330°C	-50~330°C	0~330°C	-50~330°C	-50~330°C	-20~300°C	-30~300°C	-30~300°C	-30~300°C	-50~500°C
<b>Operating Range</b>	-10~50°C	-10~50°C	-10~50°C	-10~50°C	-10~50°C	-10~50°C	-10~50°C	-10~50°C	-10~50°C	-10~50°C
<b>Accuracy #AC</b>	+/-2%, 3°C	+/-2%, 3°C	+/-2%, 3°C	+/-2%, 3°C	+/-2%, 3°C	+/-2%, 3°C	+/-2%, 3°C	+/-2%, 3°C	+/-2%, 3°C	+/-2%, 3°C
<b>Repeatability at Tbb=100°C</b>	1°C or 1%	1°C or 1%	1°C or 1%	1°C or 1%	1°C or 1%	1°C or 1%	1°C or 1%	1°C or 1%	1°C or 1%	1°C or 1%
<b>Accuracy,#AC2 Tobj=15-35,Tamb=25</b>	+/-0.6°C	+/-0.6°C	+/-0.6°C	+/-0.6°C	+/-0.6°C	+/-0.6°C	+/-0.6°C	+/-0.6°C	+/-0.6°C	+/-0.6°C
<b>Response Time (90%)</b>	0.5sec	0.5sec	0.5sec	0.5sec	0.5sec	0.5sec	0.5sec	0.5sec	0.5sec	0.5sec
<b>Resolution</b>	1/16°C	1/16°C	0.1°C	0.1°C	0.1°C	0.1°C	1/16°C	1/16°C	1/16°C	1/16°C
<b>Update Frequency</b>	2.0Hz	2.0Hz	2.0Hz	2.0Hz	2.0Hz	2.0Hz	2.0Hz	2.0Hz	2.0Hz	
<b>D:S</b>	8:1	8:1	8:1	8:1	8:1	8:1	1:1 (60°)	8:1		
<b>Wave Length #WL</b>	8um-14um	8um-14um	8um-14um	8um-14um	8um-14um	8um-14um	5um-14um	8um-14um		
<b>Lens</b>	Fresnel Lens	Fresnel Lens	Fresnel Lens	Fresnel Lens	Fresnel Lens	Fresnel Lens	Fresnel Lens	Fresnel Lens	NA	NA
<b>Possible Emissivity #PE</b>	0.1~1 Step.01	0.1~1 Step.01	Fix to 0.95	Fix to 0.95	Fix to 0.95	Fix to 0.95	Fix to 0.95	0.1~1 Step.01	0.1~1 Step.01	0.1~1 Step.01
<b>Loop Impedance</b>	N/A	N/A	50KΩ (Min)	500Ω (Max)	500Ω (Max)	500Ω (Max)	N/A	N/A	N/A	500ΩMax (4~20mA) 50KΩMin ( 0~5V)
<b>Power Supply</b>	Adaptor 3V (Option)	3Vdc	24Vdc (12V~26Vdc)	24Vdc (12V~26Vdc)	24Vdc (12V~26Vdc)	24Vdc (12V~26Vdc)	3Vdc	3Vdc	Adaptor 5V	24Vdc (12V~26Vdc)
<b>Cable Length</b>	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M
<b>Enclosure rating</b>	IP65	IP65	IP65	IP65	IP65	IP65	N/A	IP65	N/A	IP65
<b>Dimension</b>	DxL=21x105mm	DxL=21x105mm	DxL=21x105mm	DxL=21x105mm	DxL=21x105mm	DxL=21x105mm	DxL=20x70mm	DxL=21x105mm		
<b>Weight</b>	200g	200g	200g	200g	200g	200g	300g	200g		
<b>Construction</b>	Aluminum Tube	Aluminum Tube	Aluminum Tube	Aluminum Tube	Aluminum Tube	Aluminum Tube	Stainless steel	Aluminum Tube	Plastic	Plastic
<b>Special Features</b>									LCD Display	LCD Display
<b>Output Type:</b>	RS-232	RS-485	0~5Vdc	0~5Vdc	0~20mA (4 wire)	4~20mA (2 wire)	SPI Protocol of RII	SPI Protocol of RII	RS-232	0~20mA// 4~20mA//0~5V// K-type
<b>Serial Output</b>	Tobj,Tamb	Tobj,Tamb	Output Volt linear to Temp	Output Volt linear to Temp	Output current linear to Tobj	Output current linear to Tobj	Tobj,Tamb	Tobj,Tamb	Tobj,Tamb	Tobj,Tamb
<b>4~20mA ( 2_wire)</b>	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	Yes #HUB-i
<b>0~20mA ( 4_wire)</b>	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	Yes #HUB-i
<b>0~5V ; 0~10V</b>	N/A	N/A	Yes	Yes	N/A	N/A	N/A	N/A	N/A	Yes #HUB-i
<b>SPI for RII protocol</b>	Yes	N/A	N/A	N/A	N/A	N/A	Yes	Yes	Yes	Yes #HUB-i
<b>RS-232</b>	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Yes #HUB-i
<b>RS-485</b>	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes #HUB-i
<b>K; J type output</b>	N/A	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	Yes #HUB-i