

**NMEA5-ISOF™ Specifications :** <sup>(1)</sup>

PARAMETER	DESCRIPTION / TEST CONDITIONS	MIN	TYPICAL	MAX	UNIT
<b>Mechanical</b>					
Enclosure size	115mm x 90mm x 40mm (LxWxH)	-	-	-	-
Enclosure mounting	Din-Rail or via screw mounting	-	-	-	-
Terminal Block	Spring type terminal block	-	-	-	-
Wire Size Range	Allowable wire diameter in terminal block <sup>(2)</sup>	0.2	-	1.5	mm <sup>2</sup>
Wire-end Strip	Recommended length to strip at wire-end	-	10	-	mm
Operating Temperature	Working temperature range	-40		85	°C
<b>Power Supply</b>					
Supply Voltage	Vin	5	24	40	V
Supply Current	a.) @24V Vin : All output ports @No load <sup>(3)</sup>		53		mA
	b.) @24V Vin: All output ports @Full load <sup>(4)</sup>		93		mA
	c.) @12V Vin : All output ports @No load <sup>(3)</sup>		97		mA
	d.) @12V Vin: All output ports @Full load <sup>(4)</sup>		188		mA
Short Circuit Current	Auto cut-off by Polyfuse when current at trip level		600		mA
Reverse Polarity	Reverse polarity power supply protected	-	-	-	-
Power Indicator	Red SMD LED	-	-	-	-
<b>Opto-Isolated Input</b> <sup>(5)</sup>					
TTL Input Voltage	TTL logic serial input voltage detection level	1.8	2.0		V
Differential Input Voltage	RS-422 logic serial input voltage detection level	1.8	2.0		V
Input Serial Current	Input current detection level	1.3	1.6		mA
Galvanic Isolation	Optical isolation voltage between serial input and Vin			4170	V
<b>Isolated Full Output</b> <sup>(6)</sup>					
Isolated Output Voltage	Output voltage between A and B @No load <sup>(3)</sup>	4.8	5.0	5.3	V
	Output voltage between A and B @Full load <sup>(4)</sup>	2.7	2.8	2.9	V
Isolated Output Current	Output current per port @Full load <sup>(4)</sup>			27	mA
Galvanic Isolation	Isolation between each port Isolated voltage and Vin <sup>(5)</sup>			1500	V
Propagation Delay	Time it takes to travel from input to output	1.75		2.25	us
Data Rate	Reliable serial data speed	4.8		115.2	kbps
Output Indicator	Green SMD LED per port – can be disable via jumper <sup>(7)</sup>	-	-	-	-

Note:

(1) Specifications (February 2018), may be modified and updated without further notice.

(2) In a very high EMI environment, it is recommended that all shield wires to be connected to boat/ship ground.

(3) No load condition measured with output at open ended in free space.

(4) Full load condition measured with each of all output ports loaded with 100 ohm resistor.

(5) Serial input accepts RS-422/RS-485, TTL level signals, and RS-232C in TTL voltage level.

(6) All output ports are like an island of their own with full galvanic isolation from main supply voltage/ground and from each other.

Serial output signal fixed in RS-422/RS-485 standard level.

(7) User preference to remove the front-end jumpers to disable output port indicators.

Very useful function when installed prominently in bridge navigation area to remove the light distraction during night navigation.