Smart Dupline®
Analog Input Module
Type SHPINNI2

- **2 x Ni1000/Pt1000 input**
- **Bus-powered**
- **Input type selectable from SBWEB/SHWEB configuration tools**
- **Small dimension housing for decentralized installation inside wall-box**

Product Description

SHPINNI2 is an input module with 2 x Ni1000/Pt1000 inputs. The compact size of the module makes it possible to fit it into a wall-box or small junction box, thereby enabling a decentralized installation concept where the Dupline® bus is multidropped from sensor to sensor. This simplifies the wiring to the controller compared to traditional star wiring connections, reduces the number of DDC's and sub-panels required and provides a higher flexibility for last minute changes and enhancements. The selection of input type (Ni1000 or Pt1000) and input range to be used is done with the SBWEB/SHWEB configuration tools. Note: The accuracy depends on the input range selected.

Ordering Key

SH P IN NI 2

- **Smart Dupline®**
- **Decentral**
- **Input module**
- **Ni1000/Pt1000 Input**
- **Number of inputs**

Type Selection

Input number	Type	Supplied by Dupline®
2	Ni1000/Pt1000	SHPINNI2

Supply Specifications

Power Supply	Supplied by Dupline®
Power on delay	≤ 2 s
Activated (all inputs)	≤ 1 s

Dupline® Specifications

Voltage	8.2 V
Maximum Dupline® voltage	10 V
Minimum Dupline® voltage	5.5 V
Maximum Dupline® current	3.5 mA

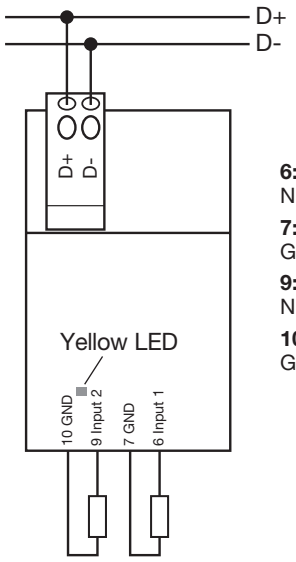
Specifications for Analog inputs

Ni1000		**Pt1000**	
Selected signal range	-30 to 130°C	Selected Signal range	-30 to 130°C
Inaccuracy (-30 to -21°C)	< 1.0°C	Inaccuracy (-30 to -21°C)	< 1.0°C
Inaccuracy (-20 to 50°C)	< 0.5°C	Inaccuracy (-20 to 50°C)	< 0.5°C
Inaccuracy (51 to 130°C)	< 1.0°C	Inaccuracy (51 to 130°C)	< 1.0°C
Cable length	< 5 m	Cable length	< 5 m
Ni1000		**Pt1000**	
Selected signal range	-30 to 250°C	Selected signal range	-30 to 250°C
Inaccuracy (-30 to -21°C)	< 2.0°C	Inaccuracy (-30 to -21°C)	< 2.0°C
Inaccuracy (-20 to 50°C)	< 0.9°C	Inaccuracy (-20 to 50°C)	< 0.9°C
Inaccuracy (51 to 130°C)	< 2.0°C	Inaccuracy (51 to 130°C)	< 2.0°C
Inaccuracy (131 to 250°C)	< 5.0°C	Inaccuracy (131 to 250°C)	< 5.0°C
Cable length	< 5 m	Cable length	< 5 m

General Specifications

Environment	
Pollution degree	2 (IEC 60664-1, par. 4.6.2)
Operating temperature	0 to +50°C (-4 to +122°F)
Storage temperature	-50 to +85°C (-58 to + 185°F)
Humidity (non-condensing)	20 - 90%
Housing	
Material	Macromel
Colour	Ambra
Dimensions (h x w x d)	50 x 30 x 18 mm
Weight	50 g
Protection degree	IP20
Terminal block	
Dupline® bus	2 x spring terminal (double)
Cross-section area	Terminal: 1.5 mm^2
Cable x 4	
6 + 9	Ni1000 input
7 + 10	GND
Cross-sectional area	0.14 mm^2
Wire length	0.25 m
Address assignment/ Channel programming	The address assignment is automatic: the controller recognises the module through the SIN (Specific Identification Number) that has to be filled in the SH tool.
Dielectric strength	
Dupline® to signal input	None
EMC	
Immunity	EN61000-6-2
- Electrostatic disharge	EN61000-4-2
- Radiated radiofrequency	EN61000-4-3
- Burst immunity	EN61000-4-4
- Surge	EN61000-4-5
- Conducted radiofrequency	EN61000-4-6
- Power frequency magnetic fields	EN61000-4-8
- Voltage dips, variations, interruptions	EN61000-4-11
Emission	
- Conducted and radiated emissions	CISPR 22 (EN55022), cl.B
- Conducted emissions	CISPR 16-2-1 (EN55016-2-1)
- Radiated emissions	CISPR 16-2-3 (EN55016-2-3)
Approvals	CE cULus according to UL60950

Wiring Diagram



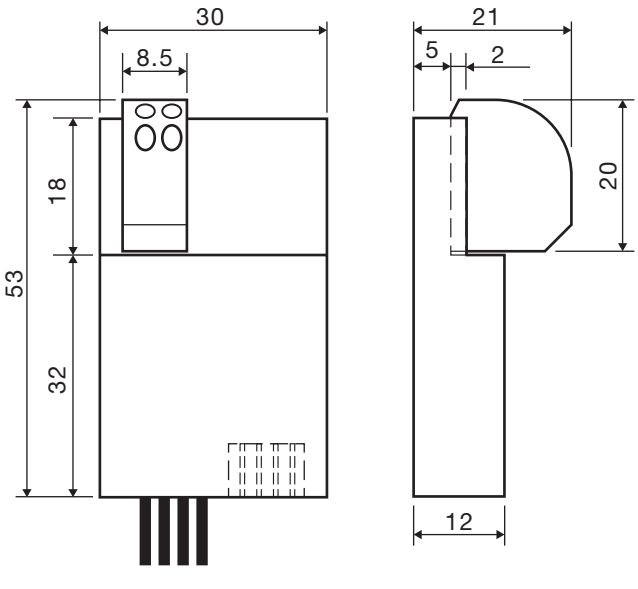
6:
Ni1000 / Pt1000 input 1

7:
GND

9:
Ni1000 / Pt1000 input 2

10:
GND

Dimensions



Specifications are subject to change without notice (02.01.2014)