STAHL Intrinsically Safe Isolators Configuration Set

ISpac Wizard Software and Configuration Set

The 9199-20-02 configuration set allows serial communication between a PC and an isolator via the included USB-to-Serial Converter.

This set-up allows for quick programming. The software is provided on an included USB drive or as a free download. The software allows the user to save configuration files easily so that the same configuration can be duplicated on multiple cards. Windows operating system is required

The configuration set will work with the following safety isolators:

- 9182 series Temperature Converter Isolator (for thermocouple applications)
- 9146 series Frequency Transmitter Isolator

Configuration Set Selection Guide

Part Number	Price	Description
9199-20-02	$312.00	STAHL configuration set, for use with STAHL 9146 and 9182 isolators.

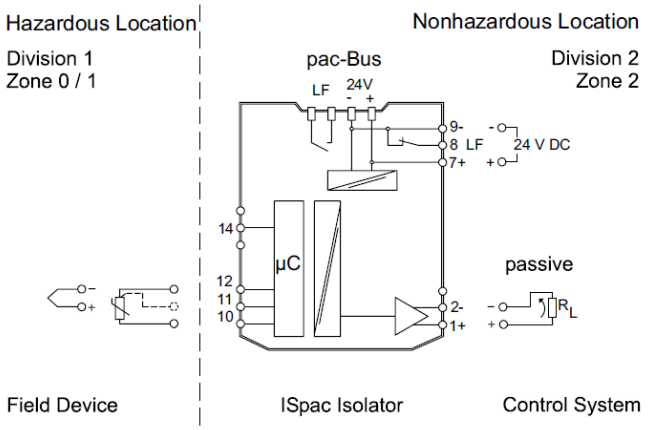
STAHL Intrinsically Safe Isolators Temperature Converter

STAHL Intrinsically Safe Isolators Temperature Converter Specifications

		Thermal Input
		9182-10-51-11S
Isolator Type		Temperature transmitter
Explosion Protection	Installation Location (per NEC 500)	Class I, Division 2
	Ex Interface (for intrinsically safe interface) (per NEC 500)	Class I, II, III Division 1 or 2
	Agency Approvals	ATEX (BVS), Brazil (ULB), Canada (FM), EAC (ENDCE), IECEx (BVS), India (PESO), Korea (KTL), Russia (Meteorological certificate), USA (FM), USA (UL)
Safety Data	Max Voltage (U_0)	6.5 V
	Max Current (I_0)	19.7 mA
	Max Power (P_0)	32mW
Functional Safety	Safety Integrity Level (SIL)	–
Electrical Data	Number of Channels	1 in / 1 out
	Line Fault Detection Relay	Yes
	Auxiliary Power Range	18 to 31.2 VDC
	Nominal Current	70mA
	Power Consumption	1.9 W
	Max Power Dissipation	1.9 W
	Operation Indication	Green LED "PWR" Red LED "LF"
	Input Function	2 wire circuits, 3 wire circuits, or 4 wire circuits
	Thermocouple Input Type	B, E, J, K, N, R, T (Part 9191-VS-05 is required)
	Resistance Temperature Detector (RTD) Input Type	PT 100
	HART Compatible	No
	Supply Voltage for Transmitter	Sensor current potentiometer < 0.25 mA
	Output	0 to 20 mA or 4 to 20 mA (active)
	Output Load Resistance Max (R_L)	750Ω
Ambient Conditions	Operating Temperature (Group Assembly)	-20°C to 60°C [-4°F to 140°F]
	Operating Temperature (Single Device Installation)	-20°C to 70°C [-4°F to 158°F]
	Storage Temperature	-40°C to 80°C [-40°F to 176°F]
Mechanical Data	Degree of Protection	IP20
	Width	17.6 mm [0.69 in] (standard)
	Mounting Type	DIN rail
	Wire Gauge Range	16 - 12 AWG
	Mounting Position	Vertical or horizontal
	Weight	0.28 lb [126 g]

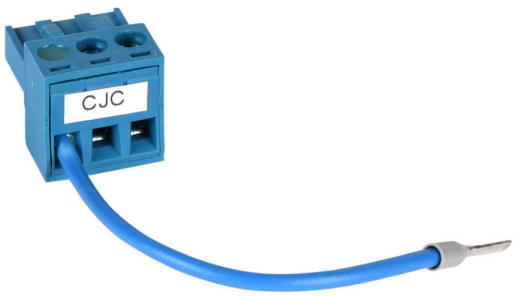
Connection Diagram

9182-10-51-11S



STAHL Temperature Converter Isolators Accessories Selection Guide

Part Number	Price	Description	Weight
9191-VS-05	$116.00	External reference junction (cold junction compensation [CJC]) is required for thermocouple applications	0.19 oz [5 g]



External reference junction (CJC) is required for thermocouple applications with 9182-10-51-11S

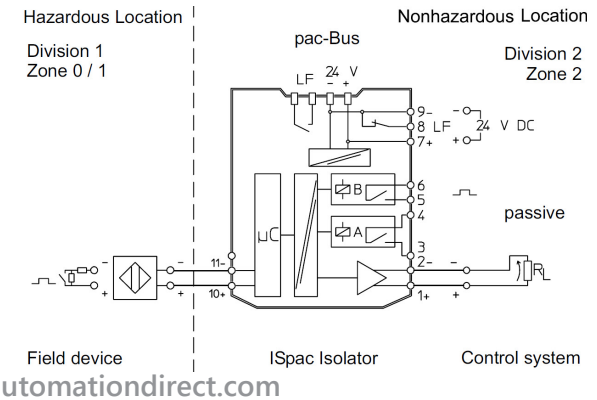
STAHL Intrinsically Safe Isolators Frequency Converter

STAHL Intrinsically Safe Isolators Frequency Converter Specifications*			
		9146-10-11-12S	**9146-20-11-11S**
Isolator Type		Frequency converter (1 channel)	Frequency converter (2 channel)
Explosion Protection	Installation Location (per NEC 500)	Class I, Division 2	Class I, Division 2
	Ex Interface (for intrinsically safe interface) (per NEC 500)	Class I, II, III Division 1 or 2	Class I, II, III Division 1 or 2
	Agency Approvals	ATEX (BVS), Canada (FM), EAC (ENDCE), IECEx (BVS), India (PESO), USA (FM)	ATEX (BVS), Canada (FM), EAC (ENDCE), IECEx (BVS), India (PESO), USA (FM)
Safety Data	Max Voltage (U_0)	10.5 V	10.5 V
	Max Current (I_0)	23.4 mA	23.4 mA
	Max Power (P_0)	61.4 mW	61.4 mW
Functional Safety	Safety Integrity Level (SIL)	–	–
Electrical Data	Number of Channels	1 in / 1 out with two configurable dry contacts	2 in / 2 out
	Line Fault Detection Relay	Yes	Yes
	Auxiliary Power Range	18 to 31.2 VDC	18 to 31.2 VDC
	Nominal Current	55mA	75mA
	Power Consumption	1.32 W	1.8 W
	Max Power Dissipation	1.1 W	1.5 W
	Operation Indication	Green LED "PWR" Red LED "LF" Yellow LED "STAT"	Green LED "PWR" (2) Red LED "LF" (2) Yellow LED "STAT"
	Input Function	Galvanic isolated frequency converter	Galvanic isolated frequency converter
	Input Type	NAMUR sensor or voltage pulses (not to be used with magnetic pickup sensors)	NAMUR sensor or voltage pulses (not to be used with magnetic pickup sensors
	Frequency Range	0.001 Hz to 20kHz	0.001 Hz to 20kHz
	HART Compatible	No	No
	Output (Channel A)	0-20 mA or 4-20 mA (active) with two configurable dry contacts	0-20 mA or 4-20 mA (active)
	Output Load Resistance Max (R_L)	600Ω	600Ω
	Output (Channel B)	–	0-20 mA or 4-20 mA (active)
Ambient Conditions	Operating Temperature (Group Assembly)	-40°C to 60°C [-40°F to 140°F]	-40°C to 60°C [-40°F to 140°F]
	Operating Temperature (Single Device Installation)	-40°C to 70°C [-40°F to 158°F]	-40°C to 70°C [-40°F to 158°F]
	Storage Temperature	-40°C to 80°C [-40°F to 176°F]	-40°C to 80°C [-40°F to 176°F]
Mechanical Data	Degree of Protection	IP20	IP20
	Width	17.6 mm [0.69 in] (standard)	17.6 mm [0.69 in] (standard)
	Mounting Type	DIN rail	DIN rail
	Wire Gauge Range	24 - 14 AWG	24 - 14 AWG
	Mounting Position	Vertical or horizontal	Vertical or horizontal
	Weight	0.28 lb [125g]	0.3 lb [135g]

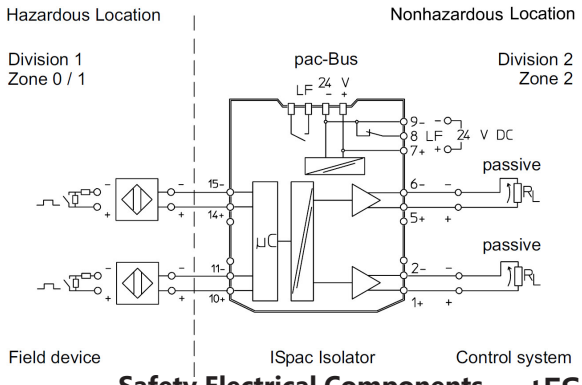
** The 9146 series frequency converter requires configuration using the 9199-20-02 cable and software.*

Connection Diagrams

9146-10-11-12S



9146-20-11-11S



Safety Products

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