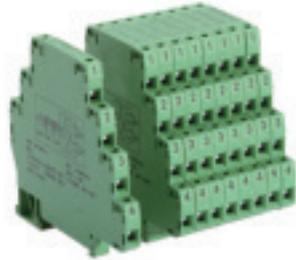


Isolator AMG1031



⚠ Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is something unclear, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the product otherwise it will induce malfunction.

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AMG1031.11(S)E-3.0/17.03

■ Summarize

Isolator, supplies power to 2-wire or 3-wire transmitters, and transfers 4~20mA signal from transmitter (or current source). This product needs to be supplied independently. The power part, input and output are isolated from each other.

■ Specification

Number of channels: 1

Supply voltage: 20~30V DC

Current consumption: (at 24V DC supply, 20mA output) ≤ 60mA

Input:

- Current: 0/4~20mA
- Available voltage: ≥ 19V
- Maximum current: < 35mA

Output:

- Current: 0/4~20mA
- Maximum current: < 35mA
- Load resistance: ≤ 550Ω
- Voltage: 0/1~5V
- Load resistance: ≥ 330kΩ

Transfer accuracy: 0.1% F.S.

Temperature drift: 0.005% F.S./°C

Response time: Reach 90% of final value in 3ms

Power supply protection: Protect the barrier from reverse supply voltage destroy

Electromagnetic compatibility:

According to GB/T18268(IEC61326-1)

Dielectric strength:

1500V AC; 1 minute (among power supply input and output)

Insulation resistance:

≥ 100MΩ; 500V DC (among power supply, input, output and the shell)

Weight: Approx. 45g

Suitable apparatus:

2-wire transmitter, 3-wire transmitter, current source

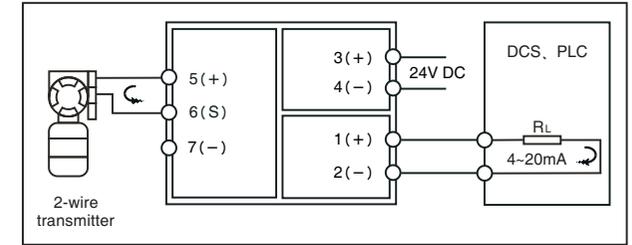
■ Operation Conditions

(1). The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover, violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.) must be avoided when using.

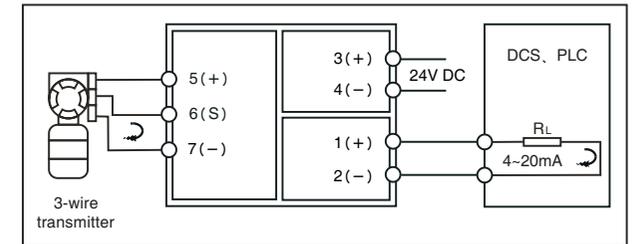
- (2). Operating temperature: -20°C~+60°C
- (3). Storage temperature: -40°C~+80°C
- (4). Relative humidity: 10%~90%

■ Application

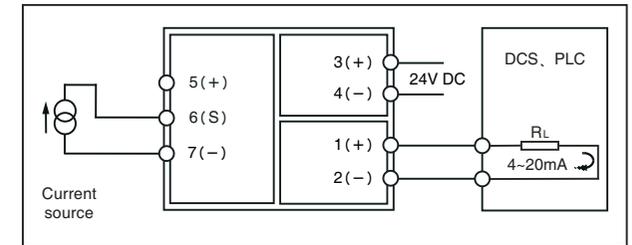
2-wire transmitter input



3-wire transmitter input



Current source

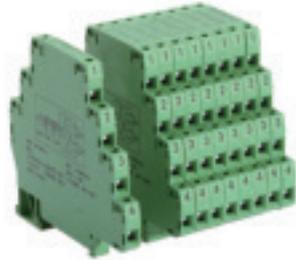


■ Installation

Mount the module on a 35mm DIN rail

- (1). Make the upside of the product to the rail;
- (2). Push the downside of the product towards the rail.

Isolator AMG1031H



⚠ Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is something unclear, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the product otherwise it will induce malfunction.

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AMG1031H.11(S)E-3.0/17.03

■ Summarize

Isolator, supplies power to 2-wire or 3-wire transmitters, and transfers 4~20mA signal from transmitter (or current source). This product needs to be supplied independently. The power part, input and output are isolated from each other.

■ Specification

Number of channels: 1
 Supply voltage: 20~30V DC
 Current consumption: (at 24V DC supply, 20mA output) \leq 60mA

Input:

Current: 0/4~20mA, HART
 Available voltage: \geq 19V
 Maximum current: $<$ 35mA

Output:

Current: 0/4~20mA, HART
 Maximum current: $<$ 35mA
 Load resistance: \leq 550 Ω
 HART, Load resistance: \geq 250 Ω

Voltage: 0/1~5V
 Load resistance: \geq 330k Ω

Transfer accuracy: 0.1%F.S.

Temperature drift: 0.005%F.S./ $^{\circ}$ C

Response time: Reach 90% of final value in 3ms

Power supply protection: Protect the barrier from reverse supply voltage destroy

Electromagnetic compatibility:

According to GB/T18268(IEC61326-1)

Dielectric strength:

1500V AC; 1 minute (among power supply input and output)

Insulation resistance:

\geq 100M Ω ; 500V DC (among power supply, input, output and the shell)

Weight: Approx. 45g

Suitable apparatus:

2-wire transmitter, 3-wire transmitter, current source

■ Operation Conditions

(1). The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover, violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.) must be avoided when using.

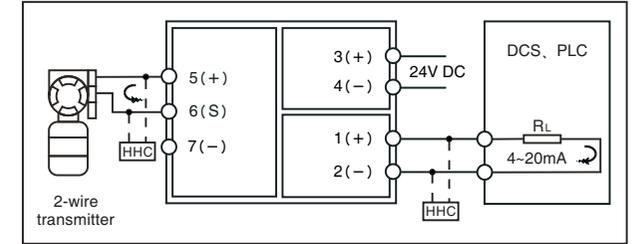
(2). Operating temperature: -20 $^{\circ}$ C~+60 $^{\circ}$ C

(3). Storage temperature: -40 $^{\circ}$ C~+80 $^{\circ}$ C

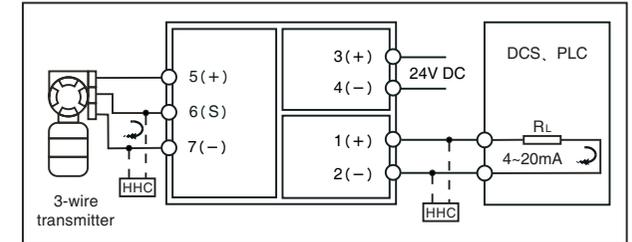
(4). Relative humidity: 10%~90%

■ Application

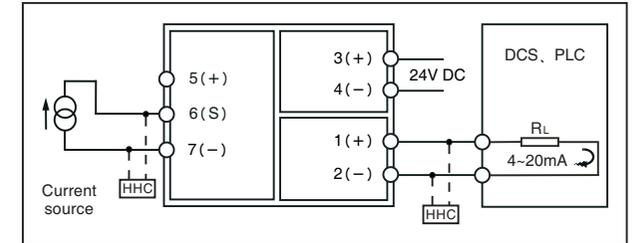
2-wire transmitter input



3-wire transmitter input



Current source



■ Installation

Mount the module on a 35mm DIN rail

- (1). Make the upside of the product to the rail;
- (2). Push the downside of the product towards the rail.

Isolator AMG1032



Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is something unclear, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the product otherwise it will induce malfunction.

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AMG1032.11(S)E-3.0/17.03

■ Summarize

Isolator, supplies power to 2-wire or 3-wire transmitters, and transfers 4~20mA signal from transmitter (or current source). This product needs to be supplied independently. The power part, input and output are isolated from each other.

■ Specification

Number of channels: 1/2

Supply voltage: 20~35V DC

Current consumption: (at 24V DC supply, 20mA output) $\leq 75\text{mA}$

Input:

Current: 0/4~20mA

Impedance: $\leq 50\Omega$

Available voltage: $\geq 17.5\sim 25\text{V}$, current $< 35\text{mA}$

Maximum current: $< 35\text{mA}$

Output: Current: 0/4~20mA

Load resistance: $R_L \leq 300\Omega$

Voltage: 0/1~5V, 0/2~10V

Load resistance: $R_L \geq 330\text{k}\Omega$ (0/1~5V)

Load resistance: $R_L \geq 660\text{k}\Omega$ (0/2~10V)

Transfer accuracy: 0.1% F.S.

Temperature drift: 0.005% F.S./ $^{\circ}\text{C}$

Response time: Reach 90% of final value in 2ms

Power supply protection: Protect the barrier from reverse supply voltage destroy

Electromagnetic compatibility:

According to GB/T18268(IEC61326-1)

Dielectric strength:

1500V AC; 1minute (among power supply input and output)

Insulation resistance:

$\geq 100\text{M}\Omega$; 500V DC (among power supply, input, output and the shell)

Weight: Approx. 150g

Suitable apparatus:

2-wire transmitter, 3-wire transmitter, current source

■ Operation Conditions

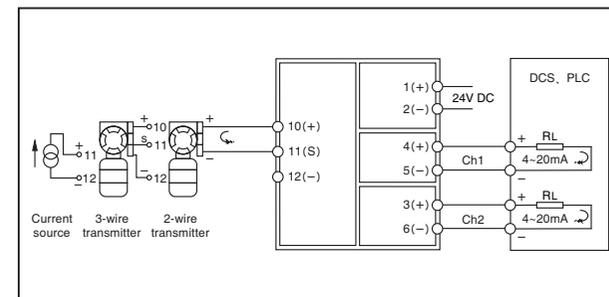
(1). The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover, violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.) must be avoided when using.

(2). Operating temperature: $-20^{\circ}\text{C}\sim +60^{\circ}\text{C}$

(3). Storage temperature: $-40^{\circ}\text{C}\sim +80^{\circ}\text{C}$

(4). Relative humidity: 10%~90%

■ Application

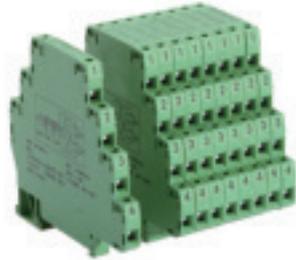


■ Installation

Mount the module on a 35mm DIN rail

- (1). Make the upside of the product to the rail;
- (2). Push the downside of the product towards the rail.

Isolator AMG1041



⚠ Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is something unclear, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the product otherwise it will induce malfunction.

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AMG1041.11(S)E-3.0/17.03

■ Summarize

Isolator, supplies transfers a DC 0/4-20mA signal from the locale. This product need be supplied independently. The power part, input and output are isolated from each other.

■ Specification

Number of channel: 1

Supply voltage: 20~35V DC

Current consumption: (at 24V DC supply, 20mA signal output) ≤50mA

Input:

Current: 0/4~20mA

Voltage drop: ≤2V

Maximum current: <30mA

Output:

Current: 0/4~20mA

Load resistance: ≤680Ω

Maximum current: <30mA

Voltage: 0/1~5V

Load resistance: ≥330kΩ

Transfer accuracy: 0.1%F.S.

Temperature drift: 0.005%F.S./°C

Response time: Reach 90% of final value in 3ms

Power supply protection:

Protect the product form reverse supply voltge destroy

Electromagnetic compatibility:

Accord with GB/T 18268(IEC 61326-1)

Dielectric strength:

1500V AC; 1minute(among power supply input and output)

Insulation resistance:

≥100MΩ; 500V DC(among power supply, input, output and the shell)

Weight: approx.45g

Suitable apparatus:

2-wire valve positioner, electrical converter

■ Operation Conditions

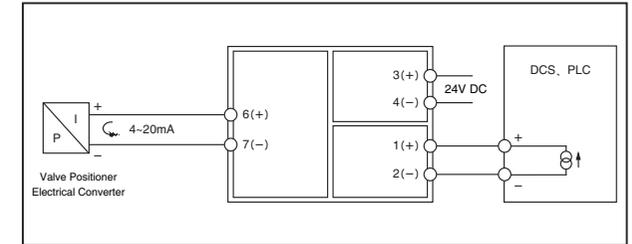
(1). The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover, violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.) must be avoided when using.

(2). Operating temperature: -20°C~+60°C

(3). Storage temperature: -40°C~+80°C

(4). Relative humidity: 10%~90%

■ Application

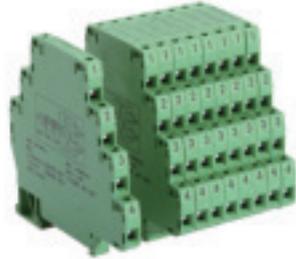


■ Installation

Mount the module on a 35mm DIN rail

- (1). Make the upside of the product to the rail;
- (2). Push the downside of the product towards the rail.

Isolator AMG1041H



Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is something unclear, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the product otherwise it will induce malfunction.

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AMG1041H.11(S)E-3.0/17.03

■ Summarize

Isolator, supplies transfers a DC 0/4-20mA signal from the locale. This product need be supplied independently. The power part, input and output are isolated from each other.

■ Specification

Number of channel: 1

Supply voltage: 20~35V DC

Current consumption: (at 24V DC supply, 20mA signal output) ≤50mA

Input:

Current: 0/4~20mA, HART
 Voltage drop: ≤2V
 Maximum current: <30mA

Output:

Current: 0/4~20mA, HART
 Load resistance: ≤680Ω
 Maximum current: <30mA
 HART, Load resistance: ≥250Ω
 Voltage: 0/1~5V
 Load resistance: ≥330kΩ

Transfer accuracy: 0.1%F.S.

Temperature drift: 0.005%F.S./°C

Response time: Reach 90% of final value in 3ms

Power supply protection:

Protect the product form reverse supply voltge destroy

Electromagnetic compatibility:

Accord with GB/T 18268(IEC 61326-1)

Dielectric strength:

1500V AC; 1minute(among power supply input and output)

Insulation resistance:

≥100MΩ; 500V DC(among power supply, input, output and the shell)

Weight: approx. 45g

Suitable apparatus:

2-wire valve positioner, electrical converter

■ Operation Conditions

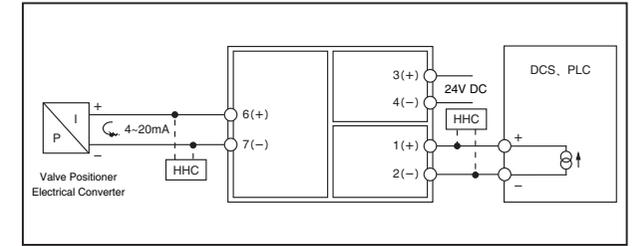
(1). The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover, violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.) must be avoided when using.

(2). Operating temperature: -20°C~+60°C

(3). Storage temperature: -40°C~+80°C

(4). Relative humidity: 10%~90%

■ Application



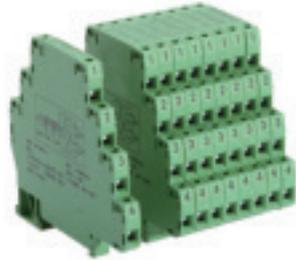
■ Installation

Mount the module on a 35mm DIN rail

- (1). Make the upside of the product to the rail;
- (2). Push the downside of the product towards the rail.

Temperature Transmitter

AMG1051D



⚠ Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is something unclear, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the product otherwise it will induce malfunction.

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AMG1051D.11(S)E-3.0/17.03

■ Summarize

Temperature transmitter converts a low-level signal from RTD and TC mounted into 0/4~20mA current or 0/1~5V voltage. The signal is isolated and transferred through output side. It's an intelligent instrument with the function of auto cold-end-compensation. The scale division and range of RTD and TC are set through PC configuration as to the upper/lower limit and current value of disconnection alarm setting. This product should be supplied power independently. Input circuit, output circuit and power supply are each galvanically isolated.

■ Specification

Number of channels: 1

Supply voltage: 20~35V DC

Current consumption: (at 24V DC supply, 20mA signal output) \leq 35mA

Input:

Signal type	Signal Range	Min. span	Accuracy	
TC	T	-200°C ~ +400°C	50°C	0.5°C/0.1%
	E	-200°C ~ +900°C	50°C	0.5°C/0.1%
	J	-200°C ~ +1200°C	50°C	0.5°C/0.1%
	K	-200°C ~ +1372°C	50°C	0.5°C/0.1%
	N	-200°C ~ +1300°C	50°C	0.5°C/0.1%
	R	-40°C ~ +1768°C	500°C	1.5°C/0.1%
	S	-40°C ~ +1768°C	500°C	1.5°C/0.1%
	B	+320°C ~ +1820°C	500°C	1.5°C/0.1%
mV	-100mV ~ +100mV	10mV	20uV/0.1%	
RTD	Pt100	-200°C ~ +850°C	20°C	0.2°C/0.1%
	Cu50	-50°C ~ +150°C	20°C	0.2°C/0.1%
	Cu100	-50°C ~ +150°C	20°C	0.2°C/0.1%

Note:

1. "%" of output accuracy is relative to the setting range, should take a bigger of relative error and absolute error as the output accuracy in application.
2. RTD input, allow max wire resistance 50Ω (3-wire);
3. TC input, transfer accuracy not contain cold junction compensation error; Every increase in compensation wire 100Ω, cold end error increases 0.2°C;
4. RTD type B input, the lower limits of temperature range must be greater than 680°C, to meet the accuracy specifications.

Output:

Current: 0/4~20mA; Load resistance: $R_L \leq 300\Omega$

Voltage: 0/1~5V; Load resistance: $R_L \geq 2k\Omega$

(Note: output current: load resistance: $R_L \leq 550\Omega$,

Current consumption: $\leq 50mA$, need be customized)

Alarm indication:

Under lower limit, output current is around 3.8mA

Exceed upper limit, disconnection alarm, output current is around 20.8mA

Short circuit, output current is around 3mA

(Note: disconnection alarm current $< 4mA$ or other special requirements, need to be customized)

Temperature drift: 0.01%F.S./°C

Cold junction compensation: $\pm 1^\circ C$

Intensive installation: $\pm 3^\circ C$ (-20°C ~ +60°C)

Response time: Reach 90% of final value in 1s

Power supply protection:

Protect the product from reverse supply voltage destroy

Electromagnetic compatibility: According to GB/T 18268(IEC 61326-1)

Dielectric strength:

1500V AC; 1minute (among power supply input and output)

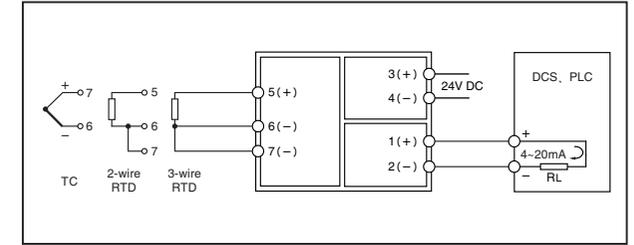
Insulation resistance:

$\geq 100M\Omega$; 500V DC (among power supply, input, output and the shell)

Weight: Approx. 45g

Suitable apparatus: 2-wire RTD, 3-wire RTD, TC

■ Application



■ Operation Conditions

(1). The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover, violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.) must be avoided when using.

(2). Operating temperature: -20°C ~ +60°C

(3). Storage temperature: -40°C ~ +80°C

(4). Relative humidity: 10% ~ 90%

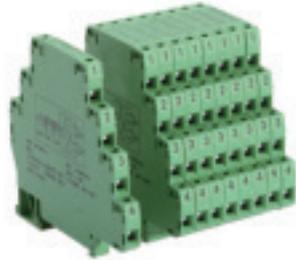
■ Installation

Mount the module on a 35mm DIN rail

(1). Make the upside of the product to the rail;

(2). Push the downside of the product towards the rail.

Temperature Transmitter AMG1051H



⚠ Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is something unclear, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the product otherwise it will induce malfunction.

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AMG1051H.11(S)E-3.0/17.03

■ Summarize

Loop-powered temperature transmitter, converts thermal resistance, thermal couple, and mV signal field into 4~20mA current for driving load. It has sensor breakage alarm indicator function. TC input has cold junction compensation function. It is intelligent, indexing number of TC and range can be configured through computer.

■ Specification

Number of channels: 1
 Supply voltage: 9~30V DC
 Input:

Signal type	Signal Range	Min. span	Accuracy	
TC	T	-200°C ~ +400°C	50°C	0.5°C/0.1%
	E	-200°C ~ +900°C	50°C	0.5°C/0.1%
	J	-200°C ~ +1200°C	50°C	0.5°C/0.1%
	K	-200°C ~ +1372°C	50°C	0.5°C/0.1%
	N	-200°C ~ +1300°C	50°C	0.5°C/0.1%
	R	-40°C ~ +1768°C	500°C	1.5°C/0.1%
	S	-40°C ~ +1768°C	500°C	1.5°C/0.1%
	B	+320°C ~ +1820°C	500°C	1.5°C/0.1%
mV	-100mV ~ +100mV	10mV	20uV/0.1%	
RTD	Pt100	-200°C ~ +850°C	20°C	0.2°C/0.1%
	Cu50	-50°C ~ +150°C	20°C	0.2°C/0.1%
	Cu100	-50°C ~ +150°C	20°C	0.2°C/0.1%

Note: 1."%" of output accuracy is relative to the setting range, should take a bigger of relative error and absolute error as the output accuracy in application.

2. RTD input, allow max wire resistance 50Ω (3-wire) ;
3. TC input, transfer accuracy not contain cold junction compensation error; Every increase in compensation wire 100Ω, cold end error increases 0.2 °C ;
4. RTD type B input, the lower limits of temperature range must be greater than 680°C, to meet the accuracy specifications.
5. mV signal has to be customized.

Output:

Current: 4~20mA; Load resistance: $R_L \leq (U_e - 9) / 0.021$

Alarm indication:

Lower limit overflow alarm, output current $\approx 3.8\text{mA}$;

Upper limit overflow and breakage alarm, output current $\approx 20.8\text{mA}$

(Notes: breakage alarm current < 4mA or other special requirements, be customized)

Temperature drift: 0.01%F.S./°C

Cold junction compensation: $\pm 1^\circ\text{C}$ (Compensation range: -20°C ~ +60°C)

Intensive installation: $\pm 3^\circ\text{C}$

Response time: Reach 90% of final value in 1s

Power supply protection:

Protect the product form reverse supply voltage destroy

Electromagnetic compatibility: According to GB/T 18268(IEC 61326-1)

Dielectric strength:

1500V AC; 1minute (among power supply input and output)

Insulation resistance:

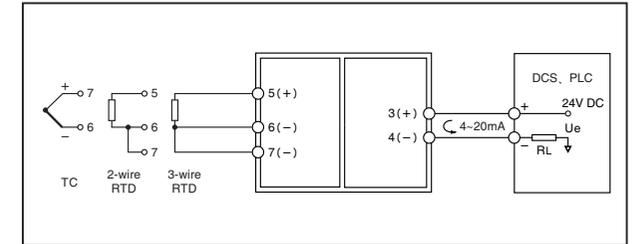
$\geq 100\text{M}\Omega$; 500V DC (among power supply, input, output and the shell)

Weight: Approx. 45g

Suitable apparatus:

2-/3-wire thermal resistance, thermal couple and mV signal

■ Application



■ Operation Conditions

(1). The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover, violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.) must be avoided when using.

(2). Operating temperature: -20°C ~ +60°C

(3). Storage temperature: -40°C ~ +80°C

(4). Relative humidity: 10% ~ 90%

■ Installation

Mount the module on a 35mm DIN rail

(1). Make the upside of the product to the rail;

(2). Push the downside of the product towards the rail.

Isolator

AMG1055



Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is something unclear, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the product otherwise it will induce malfunction.

■ Summarize

Isolator, frequency signal will be set according to the user to convert the linear range 4~20mA (or 0~20mA) output. The product has one relay alarm output. This product need be supplied independently, and the power supply, input and output are isolated from each other.

■ Specification

Number of channels: 1

Supply voltage: 20~35V DC

Current consumption: (24V power supply, 20mA output Relay closure) \leq 90mA

Input:

Signal type:

1) 3-wire PNP/NPN sensor output:

Sensor distribution: 14V DC, current: $<$ 20mA

Input frequency: 0.1Hz~100kHz

2) Frequency input signal:

Input frequency: 0.1Hz~100kHz

Maximum input voltage: 30Vp-p

Minimum input level: \geq 2V, (2Hz~100kHz)

2V, (0.1Hz~100kHz)

3) Proximity switch, dry contact switch input:

Sensor distribution: \approx 8V; short-circuit current: \approx 8mA

Input frequency: 0.1Hz~100kHz

Output:

Current: 0~20mA/4~20mA; Load resistance: \leq 400 Ω

Voltage: 0~5V/1~5V; Load resistance: \geq 300k Ω

Transfer accuracy: 0.1% F.S.

Temperature drift: 0.01% F.S./ $^{\circ}$ C

Relay characteristics:

Response time: \leq 20ms

Drive ability: 250V AC/2A or 30V DC/2A

Load type: Resistive load

Pulse width: \geq 2 μ s

Input signal fault detection function:

If the input signal exceeds the top measuring range set, output current 22mA (or output voltage 5.5V), the relay acts as the input, SPH LED ON, faceplate display "full".

If the input signal fallen below the measuring range set, output current 3mA (or output voltage 0.75V), the relay acts as the input, SPL LED ON, faceplate display "nfull".

If the input signal fault and input signal can't transmission, output current 2mA (or output voltage 0.5V), the relay acts as the input, SPH.SPL ON, faceplate display "no in".

input signal model is: in2.H/in2.r:

If the input loop-current $I <$ 0.1mA, proximity switch alarm (break line), output current 2mA, the relay acts as the input, SPH.SPL LED ON, faceplate display "inopn".

If the input loop-current $I >$ 6mA, proximity switch alarm (shout circuit) output current 2mA, the relay acts as the input, SPH.SPL LED ON, faceplate display "insot".

Note: If input signal top limit overflows or lower limit overflows or input signal faults, the output current can be configured to any value of 0~24mA (0~6V for voltage) separately.

Start delay time: 0~9999s

When the output relay is set to alarm mode with under-speed, the instrument will not output an alarm signal during the launch delay time after power on due to the under speed of input signal.

Input fault response time: 0.1~999.9s

The input signal pattern choice:

in H: Frequency input for NAMUR (2, 3, 4-wire sensor, dry contact switch, incremental encoders) at Hz.

in r: Frequency input for NAMUR (2, 3, 4-wire sensor, dry contact switch, incremental encoders) at min $^{-1}$.

in2 H: Switching input for NAMUR, with input wirebreak and input short-circuit recognition. at Hz.

in2 r: Switching input for NAMUR, switching input for NAMUR, with input wirebreak and input short-circuit recognition. at min $^{-1}$.

Not: If users need to switch measurement display unit, (Hz or min $^{-1}$), you need to set measuring range, alarm, alarm hysteresis and so on.

The LED indicator light instructions:

SPH: If the input signal exceeds the top alarm (contains dead band) LED ON.

SPL: If input signal fallen below the alarm (contains dead band) LED ON.

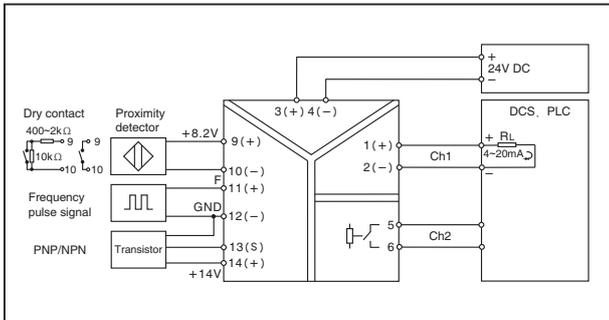
SPH, SPL ON: Input signal fault.

Electromagnetic compatibility: According to GB/T 18268(IEC 61326-1)
 Dielectric strength:
 1500V AC;1minute(among power supply input and output)
 Insulation resistance:
 ≥100MΩ;500V DC(among power supply,input,output and the shell)
 Weight: Approx.150g
 Suitable apparatus:
 Dry contact or DIN19234 standard NAMUR proximity switch input field devices (including the intrinsically safe type pressure switch, temperature switches, liquid level switch). Level pulse signal, 3-wire system PNP/NPN sensor output, incremental encoder

■ Operation Conditions

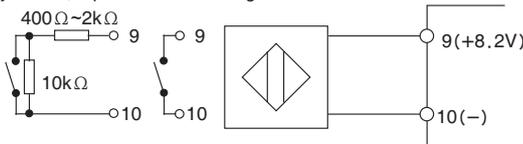
- (1). The air should not contain any medium corrupting the coat of chrome,nickel and silver.Moreover,violent quiver and impact or any cause of electromagnetic induction (such as big current or spark,etc.)must be avoided when using.
- (2). Operating temperature: -20°C~+60°C
- (3). Storage temperature: -40°C~+80°C
- (4). Relative humidity: 10%~90%

■ Application



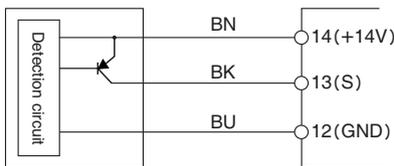
■ Input connection diagram

1) Proximity switch, Input connection diagram:



Note: switch input, need to break and short circuit monitoring of the need to switch to 10.Ω resistors in parallel on both sides, and the switch side of the 400.Ω~2k.Ω resistor in series.

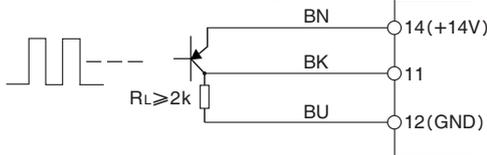
2) 3-wire PNP output sensor connection diagram:



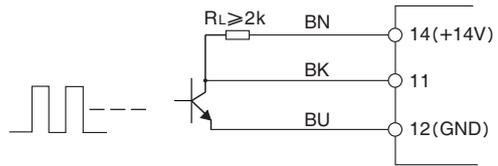
3) 3-wire NPN output sensor connection diagram:



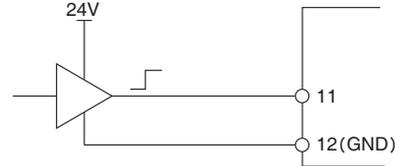
4) PNP transistor output connection diagram:



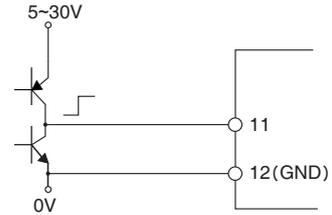
5) NPN transistor output connection diagram:



6) Incremental encoders with HTL logse connection diagram:



7) Incremental encoders with push-pull connection diagram:



■ Symbols explain of relay alarm

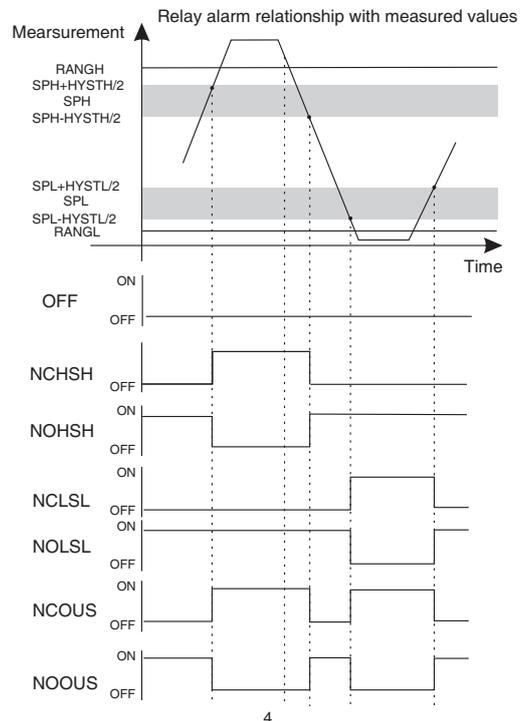
- OFF: Relay normally open
- NCHSH: If input signal is higher than the top alarm(contains dead band), the output relay closes.
- NOHSH: If input signal is lower than the top alarm(contains dead band), the output relay closes.
- NCLSL: If input signal falls below the alarm(contains dead band), the output relay closes.
- NOLSL: If input signal falls below the alarm(contains dead band), the output relay closes.
- NCOUS: If input signal exceeds the top alarm, or falls below the alarm(contains dead band),the output relay closes.
- NOOUS: If input signal exceeds the top alarm, or falls below the alarm(contains dead band),the output relay closes.

■ Alarm relay

Relays are normally open and SPST type. after power, After power up, the relay is set to normally open or normally closed state according to the user about the configuration of the relay by microcontroller. Relays can be arbitrary, independent setting one of seven kinds of alarm modes. The alarm states of relay for measurement exceeds the range and for measurement exceeds the alarm point are the same.

Normally open output: two relay contacts normally open(OFF)when the measered value in normal.
 Normally close output: two relay contacts normally closed(ON) when the measered value in normal.

The relationship between relay actions and measured values:



■ During power-up delay relay contact output status:

When the relay is set to OFF,NCHSH or NOHSH, no start delay function, the relay action based on measurements;

When the relay is set to NCLSL or NCOUS,the during power-up delay period, the relay maintain open, after the power-up time, the relay action based on measurements;

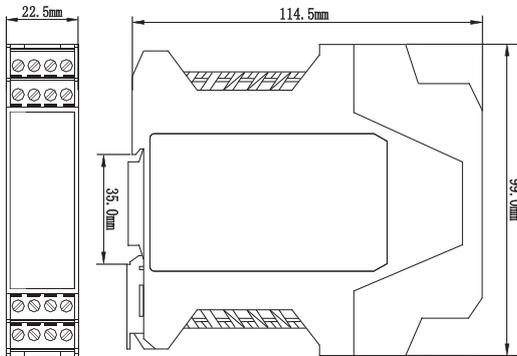
When the relay is set to NOLSL or NOCUS,the during power-up delay period, the relay maintain close, after the power-up time , the relay action based on measurements.

■ Instrument factory Settings

- Input signal pattern: in.H
- lower limit range: 0.100 Hz
- Maximum range: 100.0 kHz
- One alarm relay mode: OFF
- Two alarm relay mod: OFF
- Alarm low: 10.00 kHz
- Alarm high: 90.00 kHz
- Alarm low dead band value: 4000 Hz
- Dead zone alarm high value: 4000 Hz
- Start delay time: 10.0 s
- Filter coefficients: 1
- Input signal failure response time: 100.0s
- Output signal: 4~20 mA(or 0~5V)
- Fault alarm input current: 2.00 mA(or 0.5V)
- The overflow alarm limit current: 22.00 mA(or 5.5V)
- Overflow alarm limit current: 3.00 mA(or 0.75V)

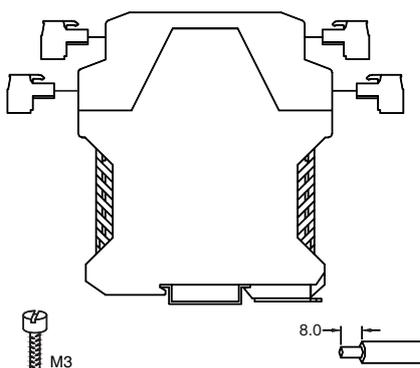
■ Dimensions

114.5mm×99.0mm×22.5mm



■ Connections

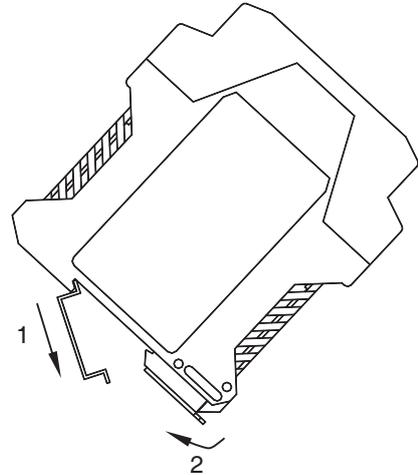
- (1). The isolators adopt knock-down terminals.
- (2). The wires are single or multiple cables with cross section of 0.5 mm²~2.5mm².
- (3). A length of 8mm bared wire is locked by the M3 bolt, As shown in figure.



■ Installation

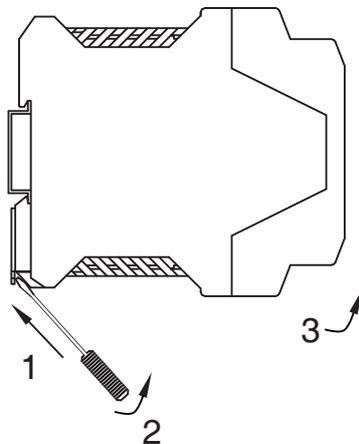
Mount the module on a 35mm DIN rail

- (1). Make the upside of the isolator to the rail;
- (2). Push the downside of the isolator towards the rail.



■ Disassembly

- (1). Use a screwdriver (edge length≤6mm) insert the metal lock which at the downside of the isolator;
- (2). Push the screwdriver upwards,and pull the metal lock downwards;
- (3). Take out the isolator from the rail.



■ Maintenance

- (1). Every product has been tested strictly before delivery.If users find any abnormality,please contact the nearest agent or our company.
- (2). In 5 years from delivery date,if the product performs abnormally under normal use conditions,we will repair it for free.