HollySys 1993

“ ”

2008 HOLI “ Holly-Sys ”

HOLLiAS®

HOLLiAS MACS HOLLiAS Batch HOLLiAS AMS HiaGuard

1000MW 50

1500 400

- - -

# AM1000EX.SIL

250V AC

2500V AC; 1min

IEC 61326-1(GB/T18268)　IEC 61326-3-1

8kV

3kV,　　2kV

2kV　　2kV

20V/m

HART

/

-20　~+60

10%~90%

-40　~+80

10%~90%

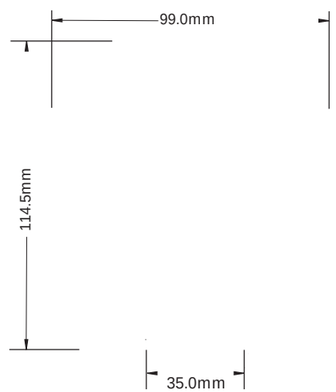
DME

DIN35mm

IEC 61508 Parts 1-7:2010
IEC 61326-3-1:2017
IEC 61298 Parts 1-3:2008

0.5mm$^2$~2.5mm$^2$

114.5mm × 99.0mm × 12.5mm　　×　×




AM1000EX.SIL　　GYB18.1229

CCC

AM1011EX.SIL
AM1013EX.SIL

NEPSI

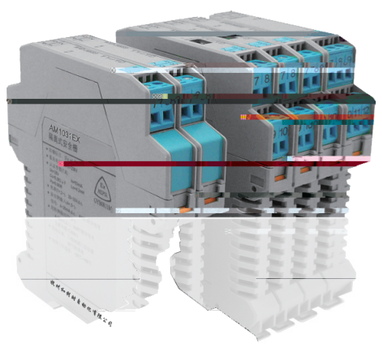
[Ex ia Ga] C
Um 250V

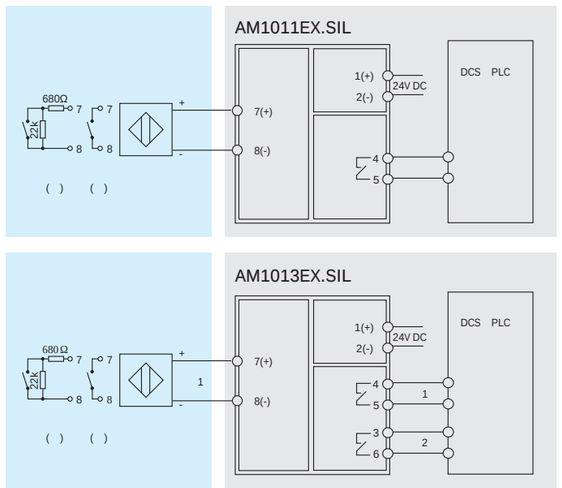
DIN19234 NAMUR

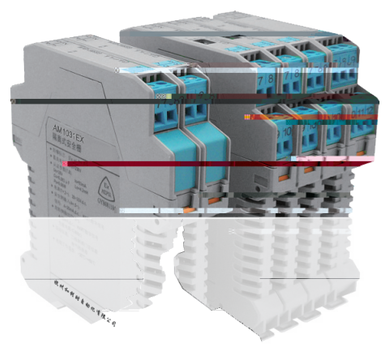
7 8
$U_o$=10.5V $I_o$=14mA $P_o$=37mW
C $C_o$=2.4 F $L_o$=165mH
B $C_o$=16.8 F $L_o$=495mH
A $C_o$=75.0 F, $L_o$=1000mH

| | |
|---|---|
| | |
| | NAMUR ≤ 10Hz |
| | ≈ 8V |
| | ≈ 8mA |
| | |
| | 250V AC,2A 30V DC,2A |
| | ≤ 10ms |
| | 2.1mA |
| | 1.2mA |
| | K1 1 K3 2 ON |
| | K2 1 K4 2 ON LFD |
| | ø Ω =1 Ţ ą |
| | |
| | 20~35V DC |
| | |
| 24V | ≤ 30mA AM1011EX.SIL |
| | ≤ 40mA AM1013EX.SIL |
| ~ ~ | 2500V AC;1min 500V AC;1min |
| | IEC61326-1 GB/T18268 IEC61326-3-1 |
| | -20 ~+60 |
| | DIN 19234 NAMUR |
| | 0 1 2 A B C T4~T6 |

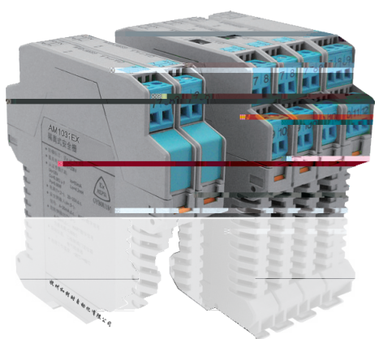
AM1011EX.SIL: 114.5mm × 99.0mm × 12.5mm × ×
AM1013EX.SIL: 114.5mm × 99.0mm × 17.5mm × ×





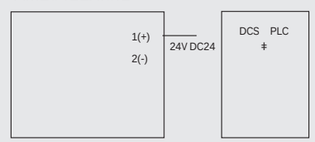



12V/45mA



AM1021EX.SIL

AM1041EX.SIL



# AM1000EX

AM1000EX

250V AC

2500V AC; 1min

GB/T 18268

IEC 61326-1

8kV

2kV 1kV

2kV 1kV

10V/m

HART

/

-20 ~+60

10%~90%

-40 ~+80

10%~90%

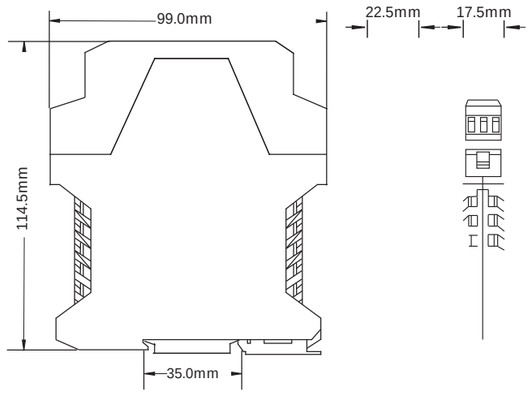
DME

DIN35mm

0.5mm$^2$~2.5mm$_2$

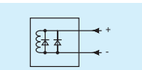
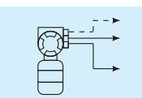
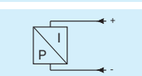
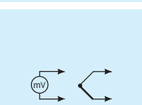
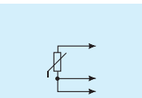
114.5mm × 99.0mm × 12.5mm × ×

AM1000EX GYB20.1090






# AM1000EX

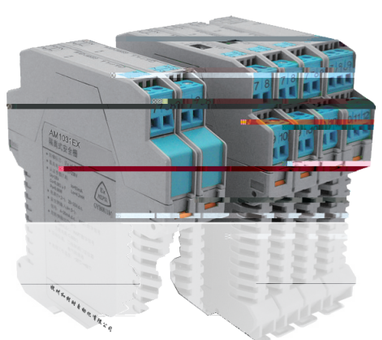
| | | | | | | |
|---|---|---|---|---|---|---|
|  | AM1011EX | | | | | 13 |
| | AM1013EX | | | | | |
| | AM1012EX | | | | | 14 |
| | AM1012EX.T | | | | | 15 |
| | AM1014EX | | | | | 16 |
|  | AM1021EX | | 45mA | | | 17 |
| | AM1022EX | | ≥ 12V | | | |
|  | AM1031EX | | | 0/4~20mA 0/1~5V | | 18 |
| | AM1032EX | | | HART | | |
| | AM1033EX | | | | | 19 |
|  | AM1041EX | | 0/4~20mA 0/1~5V | 0/4~20mA | | 20 |
| | AM1043EX | | HART | | | |
|  | AM1051EX | | | 0~20mA/4~20mA | | 21 |
| | AM1052EX | | | 0~5V/1~5V | | |
| | AM1053EX | | | | | 22 |
| | AM1051EX.T | | -5mV~+60mV | -5mV~+60mV | 1:1 | 23 |
|  | AM1061EX | | | 0~20mA/4~20mA | | 24 |
| | AM1062EX | | | 0~5V/1~5V | | |
| | AM1063EX | | | | | 25 |
| | AM1061EX.R | | 60Ω~4kΩ | 60Ω~4kΩ | 1:1 | 26 |

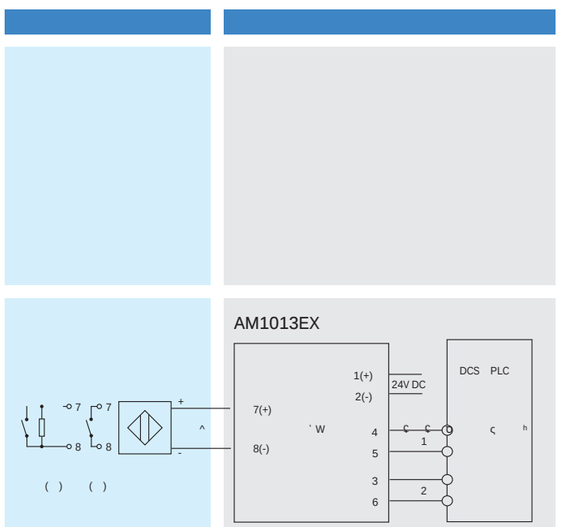
AM1011EX
AM1013EX

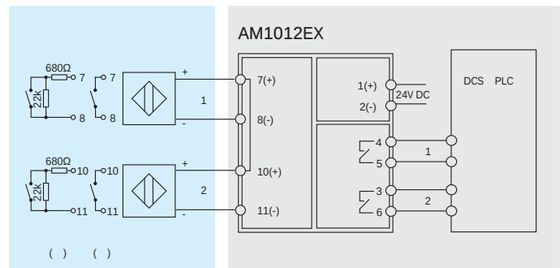
NEPSI
[Ex ia Ga] C [Ex ia Da]IIIC
Um 250V

7 8
$U_o$=10.5V $I_o$=14mA $P_o$=37mW
C $C_o$=2.4 F $L_o$=165mH
* B $C_o$=16.8 F $L_o$=495mH
A $C_o$=75.0 F, $L_o$=1000mH
*IIB [Ex ia Da]IIIC

| | |
|---|---|
| | |
| | NAMUR ≤ 10Hz |
| | ≈ 8V |
| | ≈ 8mA |
| | |
| | 250V AC,2A 30V DC,2A |
| | ≤ 10ms |
| | 2.1mA |
| | 1.2mA |
| | K1 1 K3 2 ON |
| | K2 1 K4 2 ON LFD |
| | II |
| | |
| | 20~35V DC |
| | |
| 24V | ≤ 30mA AM1011EX |
| | ≤ 40mA AM1013EX |
| ~ ~ | 2500V AC;1min 500V AC;1min |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | DIN 19234 NAMUR |
| | 0 IIC 20 IIIC |





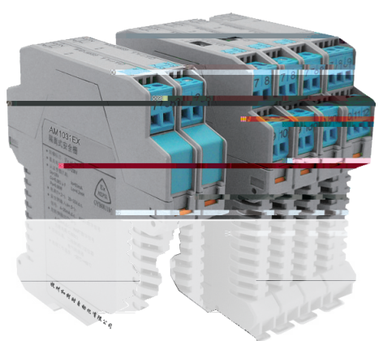
## AM1012EX.T

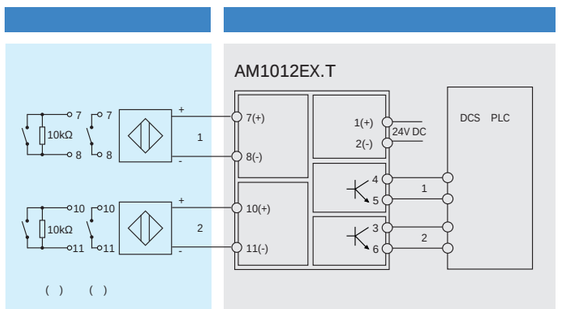
NEPSI
[Ex ia Ga] C [Ex ia Da]IIIC
Um 250V

7 8 10 11
$U_o$=10.5V $I_o$=14mA $P_o$=37mW
C $C_o$=2.4 F $L_o$=165mH
* B $C_o$=16.8 F $L_o$=495mH
A $C_o$=75.0 F, $L_o$=1000mH
*IIB [Ex ia Da]IIIC

| | |
|---|---|
| | |
| | NAMUR ≤ 5kHz |
| | ≈ 8V |
| | ≈ 8mA |
| | |
| | 4.5V ≤ $V_H$ ≤ 12V $V_L$ ≤ 0.5V ≤ 10mA ≥ 1kΩ |
| | Vcc ≤ 2.5V =10mA Vcc=24V |
| | ≤ 40mA 2kΩ ≤ $R_L$ ≤ 20kΩ |
| | Vcc-2.5V ≤ 0.5V =10mA Vcc=24V |
| | ≤ 40mA 2kΩ ≤ $R_L$ ≤ 10kΩ |
| | “ Vcc ” Vcc ≤ 40V |
| | 2.1mA |
| | 1.2mA |
| | K1 1 K3 2 ON |
| | K2 1 K4 2 ON LFD |
| | II |
| | 20~35V DC |
| | |
| 24V | ≤ 60mA |
| ~ ~ | 2500V AC;1min 500V AC;1min |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | DIN 19234 NAMUR |
| | 0 IIC 20 IIIC |

AM1012EX.T: 114.5mm × 99.0mm × 17.5mm × ×








## AM1014EX

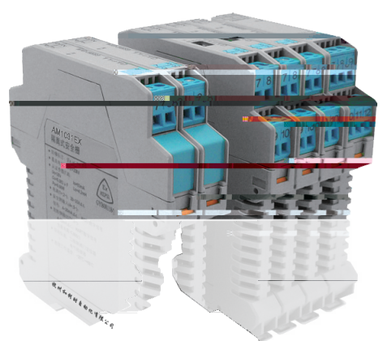
NEPSI
[Ex ia Ga] C [Ex ia Da]IIIC
Um 250V

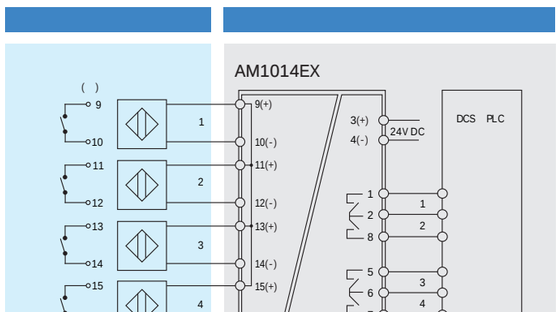
DIN19234 NAMUR

9 10 11 12 13 14 15 16
$U_o$=10.5V $I_o$=14mA $P_o$=37mW
C $C_o$=2.4 F $L_o$=165mH
* B $C_o$=16.8 F $L_o$=495mH
A $C_o$=75.0 F, $L_o$=1000mH
*IIB [Ex ia Da]IIIC

| | |
|---|---|
| | |
| | NAMUR ≤ 10Hz |
| | ≈ 8V |
| | ≈ 8mA |
| | |
| | 250V AC,2A 30V DC,2A |
| | ≤ 20ms |
| | 2.1mA |
| | 1.2mA |
| | K1 1 K2 2 K3 3 K4 4 ON |
| | |
| | 20~35V DC |
| | |
| 24V | ≤ 75mA |
| ~ ~ | 2500V AC;1min 500V AC;1min |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | DIN 19234 NAMUR |
| | 0 IIC 20 IIIC |

AM1014EX: 114.5mm × 99.0mm × 22.5mm × ×





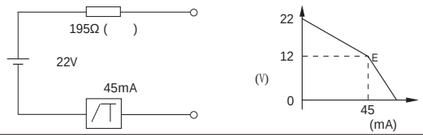
# 12V/45mA

AM1021EX
AM1022EX

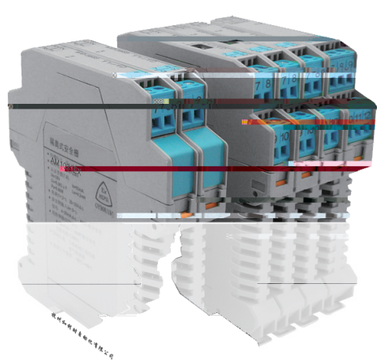
NEPSI
[Ex ia Ga] C [Ex ia Da]IIIC
12V/45mA Um 250V

24V DC

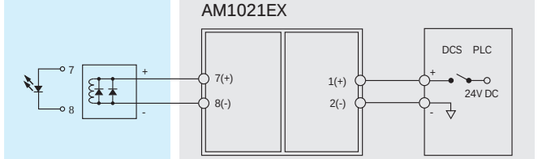
7 8 10 11
$U_o$=25V $I_o$=140mA $P_o$=875mW
C $C_o$=0.11 F $L_o$=1.32mH
* B $C_o$=0.84 F $L_o$=3.96mH
A $C_o$=2.97 F $L_o$=10.56mH
*IIB [Ex ia Da]IIIC

| | |
|---|---|
| | 22~24V |
| 45mA | ≥ 12V |
| |   |
| | |
| | 20~35V DC |
| 24V 45mA | ≤ 75mA AM1021EX ≤ 160mA AM1022EX |
| | ≤ 20ms |
| ~ | 2500V AC;1min |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | 0 IIC 20 IIIC |

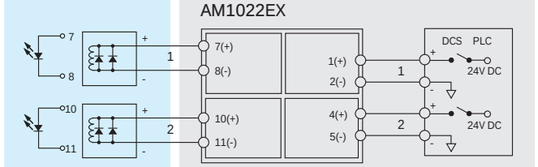
AM1021EX: 114.5mm × 99.0mm × 12.5mm × ×
AM1022EX: 114.5mm × 99.0mm × 17.5mm × ×



AM1021EX




AM1022EX





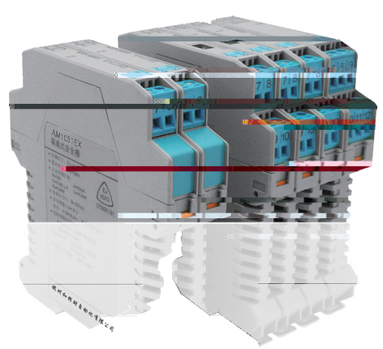

AM1031EX
— AM1032EX

NEPSI
[Ex ia Ga] C [Ex ia Da]IIIC
Um 250V

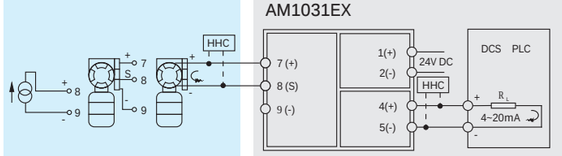
7 8 9
$U_o$=28V $I_o$=93mA $P_o$=651mW
C $C_o$=0.083μF $L_o$=4.2mH
* B $C_o$=0.65μF $L_o$=12.6mH
A $C_o$=2.15μF $L_o$=33.6mH
*IIB [Ex ia Da]IIIC

| | |
|---|---|
| | 0/4~20mA HART |
| | ≤ 28V |
| 20mA | ≥ 15.5V |
| | 0/4~20mA HART |
| | $R_L$ ≤ 550Ω AM1031EX $R_L$ ≤ 300Ω AM1032EX |
| HART | $R_L$ ≥ 250Ω |
| | 0/1~5V HART |
| | $R_L$ ≥ 330kΩ |
| | 20~35V DC |
| 24V 20mA | ≤ 65mA AM1031EX ≤ 75mA AM1032EX |
| | 2ms 90% |
| 20 4~20mA | 0.1%F.S. 0.05%F.S. |
| -20 ~+60 | 0.005%F.S./ |
| ~ ~ | 2500V AC;1min 500V AC;1min |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | 0 IIC 20 IIIC |

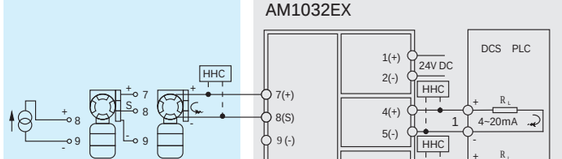
AM1031EX: 114.5mm × 99.0mm × 12.5mm × ×
AM1032EX: 114.5mm × 99.0mm × 17.5mm × ×



AM1031EX




AM1032EX



## AM1033EX

NEPSI

[Ex ia Ga] C [Ex ia Da]IIIC

Um 250V

7 8 9 10 11 12

$U_o$=28V $I_o$=93mA $P_o$=651mW

C $C_o$=0.083μF $L_o$=4.2mH

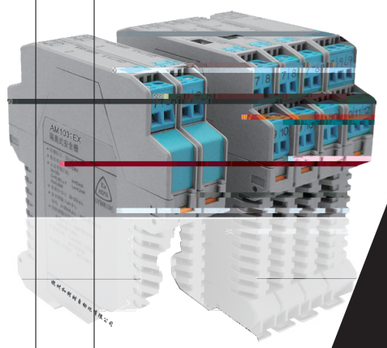
* B $C_o$=0.65μF $L_o$=12.6mH

A $C_o$=2.15μF $L_o$=33.6mH

*IIB [Ex ia Da]IIIC

| | | |
|---|---|---|
| | | 0/4~20mA HART |
| | | ≤ 28V |
| 20mA | | ≥ 15.5V |
| | | 0/4~20mA HART |
| | | $R_L$ ≤ 300Ω |
| HART | | $R_L$ ≥ 250Ω |
| | | 0/1~5V HART |
| | | $R_i$ ≥ 330kΩ |
| | | 20~35V DC |
| | 24V 20mA | ≤ 100mA |
| | | 2ms 90% |
| | 20 4~20mA | 0.1%F.S. 0.05%F.S. |
| | -20 ~+60 | 0.005%F.S./ |
| | ~ ~ | 2500V AC;1min 500V AC;1min |
| | | GB/T 18268 IEC 61326-1 |
| | | -20 ~+60 |
| | | 0 IIC 20 IIIC |

AM1033EX: 114.5mm × 99.0mm × 17.5mm × ×





## AM1041EX

NEPSI

[Ex ia Ga] C [Ex ia Da]IIIC

Um 250V

7 8 10 11

$U_o$=28V $I_o$=93mA $P_o$=651mW

C $C_o$=0.083 F $L_o$=4.2mH

B $C_o$=0.65 F $L_o$=12.6mH

A $C_o$=2.15 F $L_o$=33.6mH

AM1041EX ≤ 75mA AM1043EX

AM1033EX

AM1041EX


AM10

NEPSI

[Ex ia Ga] C [Ex ia Da]IIIC

Um 250V

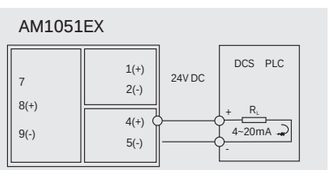
7 8 9

$U_o$=8.5V $I_o$=20mA $P_o$=43mW

C $C_o$=6.5 F $L_o$=3.6mH

B $C_o$=60 F $L_o$=10.8mH

A $C_o$=1000 F $L_o$=28.8mH



AM1051EX.T

NEPSI

[Ex ia Ga] C [Ex ia Da]IIIC

Ġ J˝ ıı ń Ţ- ȯ J ʔ ∃ ıı 2ـ ٧ Um 250V

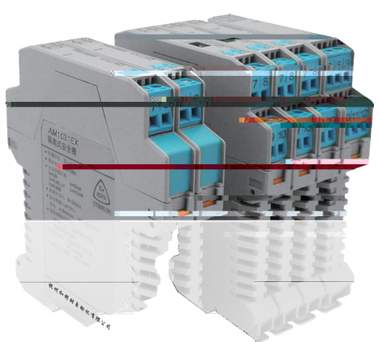
9 10

$U_o$=8.5V $I_o$=4mA $P_o$=8.5mW

C $C_o$=6.5 F $L_o$=1000mH

B $C_o$=60 F $L_o$=1000mH

A $C_o$=1000 F $L_o$=1000mH



AM1063EX

NEPSI

[Ex ia Ga] C [Ex ia Da]IIIC

Um 250V

4~20mA 1~5V

7 8 9 10 11 12

$U_o$=8.5V $I_o$=20mA $P_o$=43mW

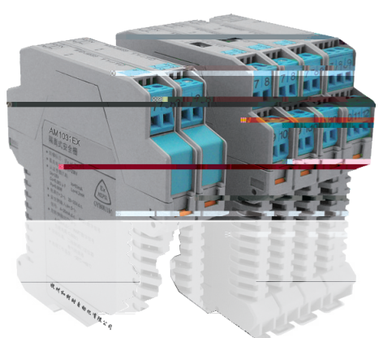
C $C_o$=6.5 F $L_o$=3.6mH

* B $C_o$=60 F $L_o$=10.8mH

A $C_o$=1000 F $L_o$=28.8mH

*IIB [Ex ia Da]IIIC

| | |
|---|---|
| | |
| | P10 |
| | |
| | 0~20mA/4~20mA |
| | $R_L$≤ 300Ω |
| | 0~5V/1~5V |
| | $R_L$≥ 35kΩ |
| | 3.8mA |
| | FΨ |
| | |
| | 20~35V DC |
| | |
| 24V 20mA | ≤ 55mA |
| | 1s 90% |
| 20 4~20mA | P10 |
| -20 ~+60 | 0.01%F.S./ |
| ~ ~ | 2500V AC;1min 500V AC;1min |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | |
| | 0 IIC 20 IIIC |



# AM2000EX

AM2000EX

1

2 2

250V AC

2500V AC;1min

DIN

GB/T 18268

8 AM2000EX

IEC 61326-1

8kV

2kV 1kV

2kV 1kV

10V/m

-20 ~+60

HART

10%~90%

/

-40 ~+80

10%~90%

AM2000

110.0mm × 73.0mm × 12.5mm × ×

AM2000EX

AM2000EX

GYB22.2846X

AM2012EX

## 防爆认证

NEPSI

[Ex ia Ga] C

Um 250V

1 3 2 4

$U_o$=10.5V $I_o$=14mA $P_o$=37mW

C $C_o$=2.4 F $L_o$=165mH

B $C_o$=16.8μF $L_o$=495mH

A $C_o$=75.0μF $L_o$=1000mH

## 主要技术参数

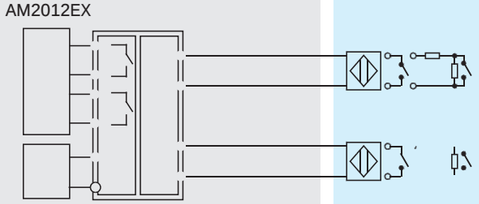
| | |
|---|---|
| | |
| | NANUR |
| | ≈ 8V |
| | ≈ 8mA |
| | |
| | ≤ 10ms |
| | 250V AC,2A 30V AC,2A |
| | 2.1mA |
| | 1.2mA |
| | K1 1 K3 2 ON OFF |
| | K2 1 K4 2 ON OFF |
| | K2 K4 OFF |
| | 22kΩ |
| | 680Ω K2 K4 ON |
| | 20~35VDC |
| | ≤ 45mA 24V |
| | ~ ≥ 2500V AC |
| | ~ ≥ 500V AC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | DIN 19234 NAMUR |
| | 0 1 2 A B C T1~T6 |

## 结构及外形图

AM2000

## 接线图

AM2012EX



AM2031EX

## 防爆认证

NEPSI

[Ex ia Ga] C

Um 250V

1 2 3 4

$U_o$=28V $I_o$=93mA $P_o$=651mW

C $C_o$=0.083μF $L_o$=4.2mH

B $C_o$=0.65μF $L_o$=12.6mH

A $C_o$=2.15μF $L_o$=33.6mH

## 主要技术参数

| | |
|---|---|
| | |
| | 4~20mA HART |
| | ≤ 28V |
| 20mA | ≥ 16V |
| | |
| | 4~20mA HART |
| | $R_L$ ≤ 450Ω |
| HART | $R_L$ ≥ 249Ω |
| | 3ms 90% |
| | |
| | 20~35VDC |
| | ≤ 60mA 24V 20mA |
| 20 4~20mA | 0.1%F.S. 0.05%F.S. |
| -20 ~+60 | 0.01%F.S./ |
| | ~ ≥ 2500V AC |
| | ~ ≥ 500V AC |
| | GB/T18268 IEC 61326-1 |
| | -20 ~+60 |
| | HART |
| | 0 1 2 A B C T1~T6 |

## 结构及外形图

AM2000

## AM2041EX

NEPSI

[Ex ia Ga] C

Um 250V

AM2041EX

4~20mA

HART

1 2

$U_o$=28V $I_o$=93mA $P_o$=651mW

C $C_o$=0.083 F $L_o$=4.2mH

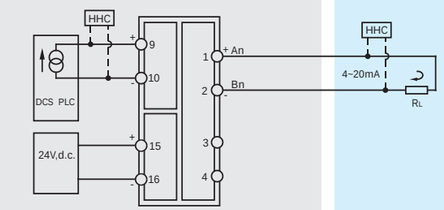
B $C_o$=0.65 F $L_o$=12.6mH

A $C_o$=2.15 F $L_o$=33.6mH

| | |
|---|---|
| | 4~20mA DC HART |
| | $R_L$ ≤ 800Ω |
| HART | $R_L$ ≥ 249Ω |
| | |
| | 4~20mA DC HART |
| | ≤ 2V |
| | 0.5ms 90% |
| | |
| | 20~35V DC |
| | ≤ 45mA 24V 20mA |
| 20 4~20mA | 0.1%F.S. 0.05%F.S. |
| -20 ~+60 | 0.01%F.S./ |
| | ~ ≥ 2500V AC |
| | ~ ≥ 500V AC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | 0 1 2 A B C T1~T6 |

AM2000

AM2041EX






## AM2051EX

NEPSI

[Ex ia Ga] C

Um 250V

AM2051EX

4~20mA

1 2

$U_o$=8.5V $I_o$=20mA $P_o$=43mW

C $C_o$=6.5 F $L_o$=3.6mH

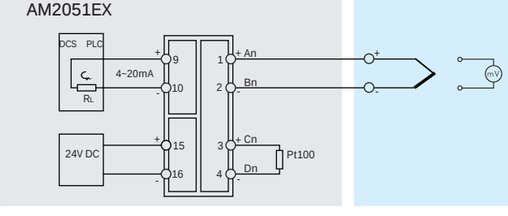
B $C_o$=60 F $L_o$=10.8mH

A $C_o$=1000 F $L_o$=28.8mH

| | |
|---|---|
| | P10 /mV |
| | |
| | 4~20mA DC |
| | $R_L$ ≤ 550Ω |
| | 1s 90% |
| | |
| | L 3.8mA |
| | H 20.8mA |
| | L H 20.8mA |
| | |
| | 20~35V DC |
| | ≤ 40mA 24V 20mA |
| 5 | P10 |
| | 1 -20~+60 |
| -20 ~+60 | 0.01%F.S./ |
| | ~ ≥ 2500V AC |
| | ~ ≥ 500V AC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | T E J K N R S B |
| | 0 1 2 A B C T1~T6 |

AM2000

AM2051EX



## AM2061EX

NEPSI

[Ex ia Ga] C
Um 250V

AM2061EX

4~20mA ,

PC

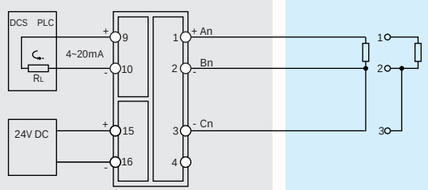
1 2 3

$U_o$=8.5V $I_o$=20mA $P_o$=43mW
C $C_o$=6.5 F $L_o$=3.6mH
B $C_o$=60 F $L_o$=10.8mH
A $C_o$=1000 F $L_o$=28.8mH

| | |
|---|---|
| | P10 |
| | |
| | 4~20mA DC |
| | ≤ 550Ω |
| | 1s 90% |
| | |
| | |
| | L 3.8mA |
| | H 20.8mA |
| | L H 20.8mA |
| | L H 3mA |
| | |
| | 20~35V DC |
| | ≤ 40mA 24V 20mA |
| 25 | P10 |
| | 0.01%F.S./ |
| | ~ ≥ 2500V AC |
| | ~ ≥ 500V AC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~ 60 |
| | 0 1 2 A B C T1~T6 |

AM2000

AM2061EX




1.
2. 2 3

## K-AM200

K-AM200

DB37 K DCS

AM2000EX

FM DCS

FM1381

| | | | | | |
|---|---|---|---|---|---|
| K-AM201-B | | | 8 | AM2031EX<br>AM2041EX<br>AM2061EX | DB37 |
| K-AM202-B | | | 8 | AM2031EX<br>AM2061EX | DB37 |
| K-AM203-B | | | 8 | AM2051EX | DB37 |
| K-AM204-B | | | 8 | AM2051EX | DB37 |
| K-AM205-B | | | 16 | AM2012EX | DB37 |

: , 8 AM2000K

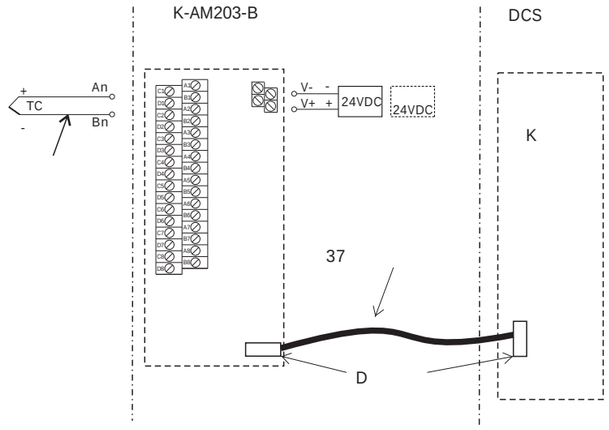
## K-AM203-B

K-AM203-B 8 TC :
DB37 K DCS :
8 TC 8 :
AM2051EX :

FM DCS :

FM1381

TC
20~35V DC
max : 440mA@24V
: ≤0.1%FS typical 0.05%FS
100ppm/K typical 50ppm/K
: -20 ~+60
: 10%~90% Tu=40
: -40 ~+85




× ×

≤ 500g



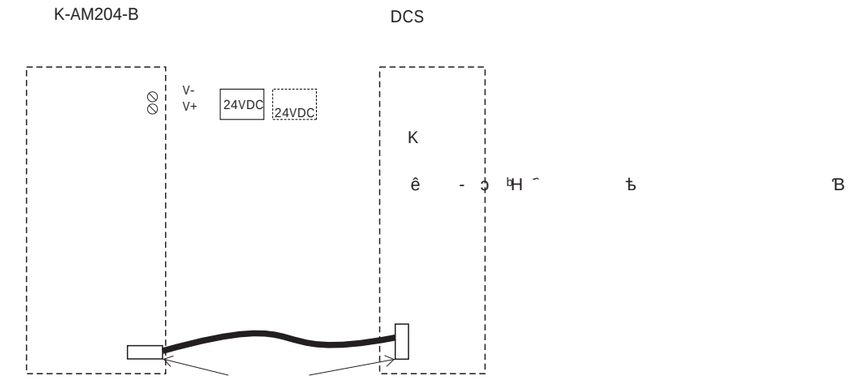
## K-AM204-B

K-AM204-B 8 TC :
DB37 K DCS :
8 TC 8 :
AM2051EX :

FM DCS :

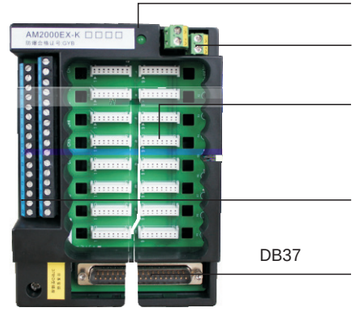
FM1381

TC
20~35V DC
max : 440mA@24V
: ≤0.1%FS typical 0.05%FS
100ppm/K typical 50ppm/K
: -20 ~+60
: 10%~90% Tu=40
: -40 ~+85




× ×

≤ 500g



## K-AM205-B

K-AM205-B 16

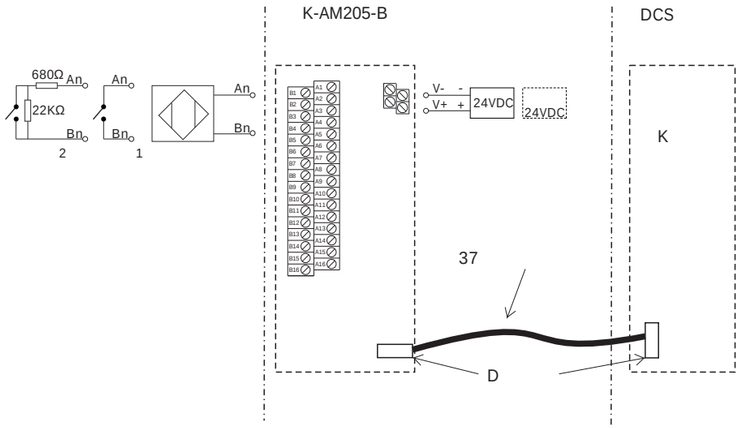
DB37 K DCS

16 16

AM2012EX

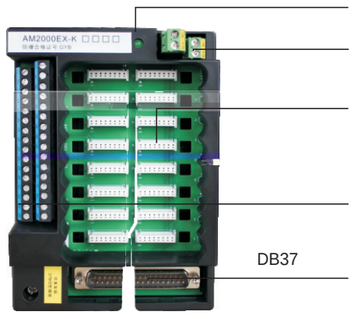
FM DCS

FM1381




× × 47.0mm × 150.0mm × 109.0mm

≤ 500g



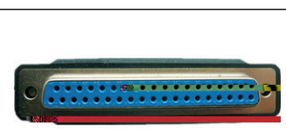

| | |
|---|---|
| : | DI |
| : | 20~35V DC |
| max : | 440mA@24V |
| : | ≤ 0.1%FS typical 0.05%FS |
| : | 100ppm/K typical 50ppm/K |
| : | -20 ~+60 |
| : | 10%~90% Tu=40 |
| : | -40 ~+85 |

## DB37

K-AM200
K DCS

37

0.7~10



AM2000K AM2000EX

# AM3000EX

AM3000EX

2

GB3 Ă E = ƚ ˃ %

GB3 Ă E = ƚ · 250V AC

2500V AC;1min

GB/T 18268

IEC 61326-1

8kV

2kV 1kV

2kV 1kV

10V/m

HART

/

-40 ~+70

10%~90%

-40 ~+85

10%~90%

AM3000

120.0mm × 106.0mm × 12.5mm × ×

CCC

IECEx

AM3071EX

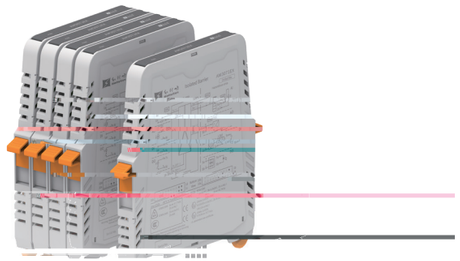
AI AO DI DO

IO

AI AO HART

AM3000

2



**1**

NANUR

≤ 26V

8V

/ 0.7mA~8.2mA 1:1

0.7mA~45mA 1:1

Ue 15~30V

RL Ue-15 /Iin

**2**

≤ 26V

35mA ≥ 12V

0.7~35mA ≤ 0.7mA

21~30V 0~2V

≤ 20ms

**3**

4~20mA HART

≤ 26V

20mA ≥ 15.5V

4~20mA HART

Ue 15~30V

RL Ue-15 / 20mA

HART RL ≥ 250Ω

0.125%F.S. 0.1%F.S.

≤ 20ms

**4**

4~20mA HART

RL ≤ 650Ω

HART RL ≥ 250Ω

0.125%F.S. 0.1%F.S.

≤ 20ms

4~20mA HART

19~30V

150ppm/

~ ≥ 2500V AC

~ / ≥ 1500V AC

GB/T 18268 IEC 61326-1

-40 ~+70

0 1 2 A B C T1~T6

20 21 22 IIIA IIIB IIIC I

SITIIAS

[Ex ia Ga] C [Ex ia Da] C

[Ex ia Ma] Ex nA C T4 Gc

Um 250V

5a 5b

$U_o$=27V $I_o$=127mA $P_o$=857mW

C $C_o$=0.09 F $L_o$=2.2mH

* B $C_o$=0.705 F $L_o$=8.8mH

A $C_o$=2.23 F $L_o$=17.6mH

$C_o$=4.12 F $L_o$=28.9mH

5a 1b

$U_o$=7.14V $I_o$=0 $P_o$=0 $U_i$=28V $I_i$=120mA $C_i$=0 $L_i$=0

C $C_o$=13.5 F

* B $C_o$=240 F

A $C_o$=1000 F

$C_o$=1000 F

5a 1a

$U_o$=9.8V $I_o$=9.9mA $P_o$=24.3mW

C $C_o$=3.3 F $L_o$=362mH

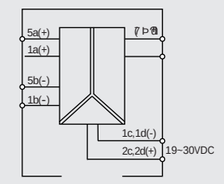
* B $C_o$=23 F $L_o$=1451mH

A $C_o$=135 F $L_o$=2902mH

$C_o$=268 F $L_o$=4761mH

*IIB [Ex ia Da]IIIC

/0



1
2

| | | + |
|---|---|---|
| $U_o$ | ≤ | $U_i$ |
| $I_o$ | ≤ | $I_i$ |
| $P_o$ | ≤ | $P_i$ |
| $C_o$ | ≥ | $C_i+C_c$ |
| $L_o$ | ≥ | $L_i+L_c$ |

$U_m$

$U_o$ ,
$U_m$ $U_i$

$I_o$

$P_o$

$C_o$

$L_o$

$C_c=C_k \times L$
$L_c=L_k \times L$

$C_k$ —
$L_k$ —
L —

$C_k$ 0.1154μF/km
$L_k$ 0.20mH/km



:
GB/T3836.4-2021 1.2V
0.1A 20μJ 25mW
pH
$L_i$=0 $C_i$=0

:
1 GB/T3836.1-2021 GB/T3836.4-2021

2
3 $U_i$ $I_i$ $P_i$ $C_i$ $L_i$
4

5
6

1
2
3
4
5

1 0.5mm²
2 500V
2

$C_c \le C_o-C_i$ $L_c \le L_o-L_i$
$L=C_c/C_k$ $L=L_c/L_k$
L ,
3 KVV $C_k$=0.115μF/km $L_c$=0.20mH/km

1
2
3

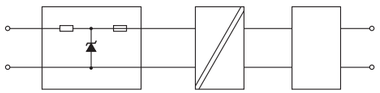
4

5
6

7

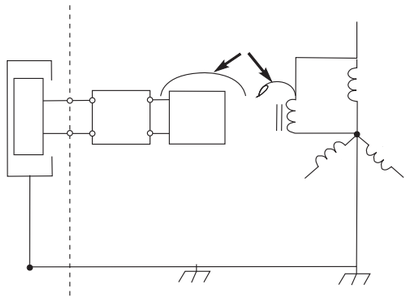
“ ”

2



2

3



3

1

2

3

4

5 mV

Pt100 4~20mA

4

6 DCS ESD

7

24V I/O DCS

1

2 1%

1%

4

3 1%

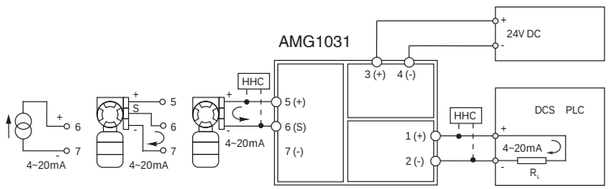
50%

# AMG1000

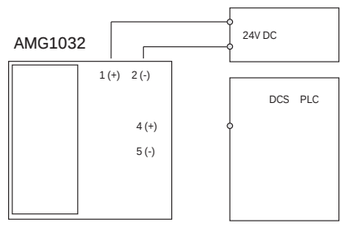


## AMG1031

| | |
|---|---|
| | |
| | 0/4~20mA HART |
| | ≥ 19V |
| | |
| | 0/4~20mA / $R_L$ ≤ 550Ω |
| / | 0/4~20mA HART / $R_L$ ≥ 250Ω |
| / | 0/1~5V / $R_L$ ≥ 330kΩ |
| | |
| | 20~35V DC |
| | |
| 24V 20mA | ≤ 65mA |
| 20 4~20mA | 0.1%F.S. 0.05%F.S. |
| | 0.005%F.S./ |
| | 0.5ms 90% |
| | 1500V AC;1min |
| | ≥ 100MΩ;500V DC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~60 |
| | |



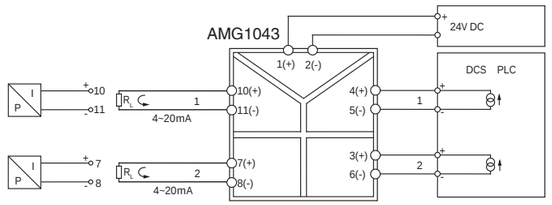
| | |
|---|---|
| | |
| | |
| | |
| | |
| / | |
| / | |
| | |
| | |
| | |
| | |
| 24V | 20mA |
| 20 | 4~20mA |
| | |
| | |
| | |
| | |
| | |
| | |
| | |



## AMG1043

| | |
|---|---|
| | |
| | 0/4~20mA |
| | ≤ 2V |
| | |
| / | 0/4~20mA / $R_L$ ≤ 800Ω |
| / | 0/1~5V / $R_L$ ≥ 330kΩ |
| | |
| | 20~30V DC |
| | |
| 24V 20mA | ≤ 65mA |
| 20 4~20mA | 0.1%F.S. 0.05%F.S. |
| | 0.005%F.S./ |
| | 2ms 90% |
| | 1500V AC;1min |
| | ≥ 100MΩ;500V DC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |

AMG1043: 114.5mm × 99.0mm × 17.5mm × ×



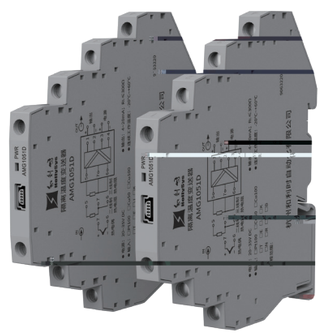



## AMG1051D

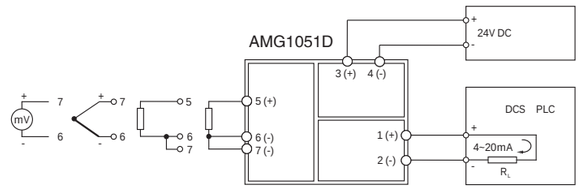
| | |
|---|---|
| | |
| | |
| | -20 ~+60 |
| | ± 1 ± 3 |
| | |
| / | 0~20mA,4~20mA / $R_L$ ≤ 300Ω |
| / | 0~5V,1~5V / $R_L$ ≥ 2kΩ |
| | $I_H$ ≈ 20.8mA $I_L$ ≈ 3.8mA |
| | 20.8mA 3mA |
| | |
| | 20~35V DC |
| | |
| 24V 20mA | ≤ 35mA |
| 20 | |
| | 0.01%F.S./ |
| | 1s 90% |
| | 1500V AC,1min |
| | ≥ 100MΩ,500V DC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |

### 结构及外形图

AMG1051D: 92.4mm × 97.7mm × 7.6mm × ×



### 接线图




1.
2. 6 7
3.

| | | | | | |
|---|---|---|---|---|---|
| | T | -200 ~+400 | 50 | 1 | / 0.2% |
| | E | -200 ~+900 | 50 | 1 | / 0.2% |
| | J | -200 ~+1200 | 50 | 1 | / 0.2% |
| | K | -200 ~+1372 | 50 | 1 | / 0.2% |
| | N | -200 ~+1300 | 50 | 1 | / 0.2% |
| | R | -40 ~+1768 | 500 | 3 | / 0.2% |
| | S | -40 ~+1768 | 500 | 3 | / 0.2% |
| | B | +320 ~+1820 | 500 | 3 | / 0.2% |
| | | -100mV~+100mV | 10mV | 40 | V / 0.2% |
| | Pt100 | -200 ~+850 | 20 | 0.4 | / 0.2% |
| | Cu50 | -50 ~+150 | 20 | 0.4 | / 0.2% |
| | Cu100 | -50 ~+150 | 20 | 0.4 | / 0.2% |

" "

## AMG1063

| | |
|---|---|
| | |
| | |
| | |
| | |
| / | 0~20mA,4~20mA / $R_L \leq 300\Omega$ |
| / | 0~5V,1~5V / $R_L \geq 20k\Omega$ |
| | $I_H \approx 20.8mA$ $I_L \approx 3.8mA$ |
| | 20.8mA 3mA |
| | |
| | 20~35V DC |
| | |
| 24V 20mA | ≤ 70mA |
| 20 | |
| | 0.01%F.S./ |
| | 1s 90% |
| | 1500V AC,1min |
| | ≥ 100MΩ,500V DC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | |

### 结构及外形图

AMG1063: 114.5mm × 99.0mm × 17.5mm × ×

### 接线图

1.
2. 8 9 11 12

| | | | | | |
|---|---|---|---|---|---|
| Pt100 | -200 | ~+850 | 20 | 0.2 | / 0.1% |
| Cu50 | -50 | ~+150 | 20 | 0.2 | / 0.1% |
| Cu100 | -50 | ~+150 | 20 | 0.2 | / 0.1% |

“ ”

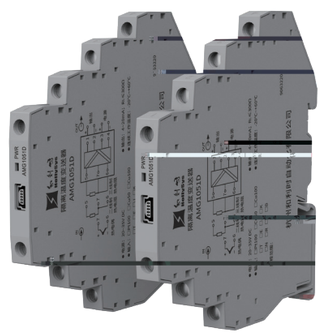


## AMG1051H

| | |
|---|---|
| | |
| | |
| | |
| | -20 ~+60 |
| | ± 1 ± 3 |
| | |
| | 4~20mA |
| | $R_L \leq$ $U_e$-9 /0.021 |
| | $I_H$=20.8mA $I_L$=3.8mA |
| | 20.8mA |
| | |
| Ue | 9~30V DC |
| | |
| 20 | |
| | 0.01%F.S./ |
| | 1s 90% |
| | 1500V AC,1min |
| | ≥ 100MΩ,500V DC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | |

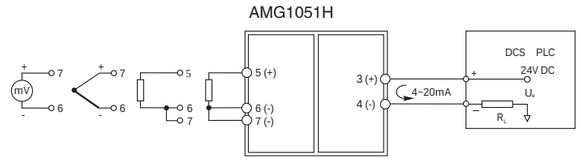
### 结构及外形图

AMG1051H: 92.4mm × 97.7mm × 7.6mm × ×



### 接线图

AMG1051H




1.
2. 6 7
3.

| | | | | | |
|---|---|---|---|---|---|
| T | -200 | ~+400 | 50 | 1 | / 0.2% |
| E | -200 | ~+900 | 50 | 1 | / 0.2% |
| J | -200 | ~+1200 | 50 | 1 | / 0.2% |
| K | -200 | ~+1372 | 50 | 1 | / 0.2% |
| N | -200 | ~+1300 | 50 | 1 | / 0.2% |
| R | -40 | ~+1768 | 500 | 3 | / 0.2% |
| S | -40 | ~+1768 | 500 | 3 | / 0.2% |
| B | +320 | ~+1820 | 500 | 3 | / 0.2% |
| | -100mV~+100mV | | 10mV | 40 | V / 0.2% |
| Pt100 | -200 | ~+850 | 20 | 0.4 | / 0.2% |
| Cu50 | -50 | ~+150 | 20 | 0.4 | / 0.2% |
| Cu100 | -50 | ~+150 | 20 | 0.4 | / 0.2% |

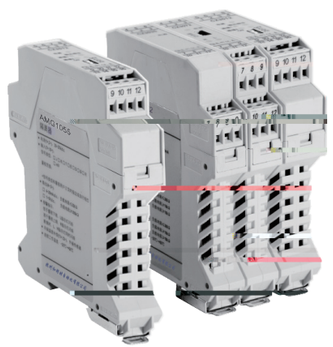
“ ”

## AMG1055

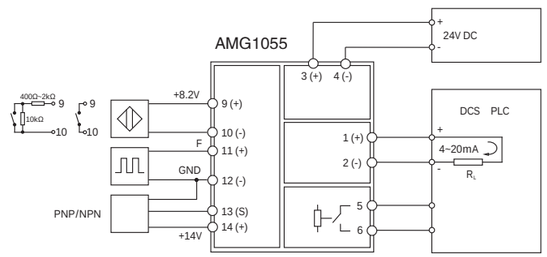
| | |
|---|---|
| | |
| PNP / NPN | |
| | 14V 20mA 0.1Hz~100kHz |
| | 30V$_{P-P}$ 0.1Hz~100kHz |
| | 8V 8mA 0.1Hz~100kHz |
| | ≥ 2μs |
| | |
| / | 0~20mA 4~20mA/$R_L$ ≤ 400Ω |
| / | 0~5V 1~5V/$R_L$ ≥ 300kΩ |
| | |
| | 250V AC,2A 30V DC,2A |
| | ≤ 20ms |
| | |
| | 20~35V DC |
| | |
| 24V 20mA | ≤ 90mA |
| 20 | 0.1%F.S. |
| (-20 +60 ) | 0.01% F.S./ |
| | 1500V AC,1min |
| | ≥ 100MΩ,500V DC |
| | GB/T 18268 IEC 61326-1 |
| | -20 ~+60 |
| | DIN 19234 NAMUR |
| | 3 PNP/NPN |

### 结构及外形图

AMG1055: 114.5mm × 99.0mm × 22.5mm × ×



### 接线图

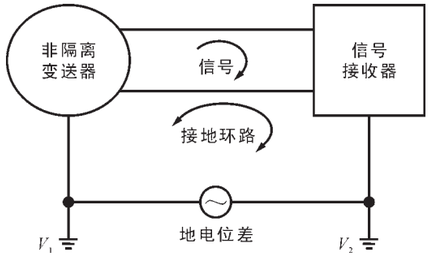





“ ”

“ ”

1

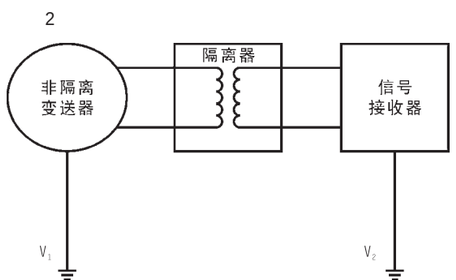



1

“ ”

1 V1=V2

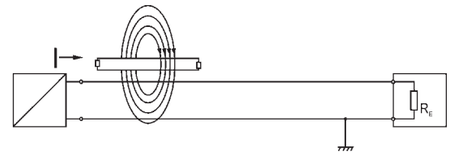
2



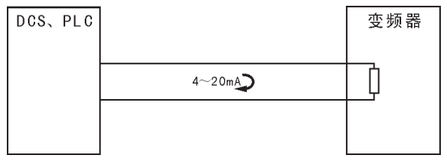

2

3

4

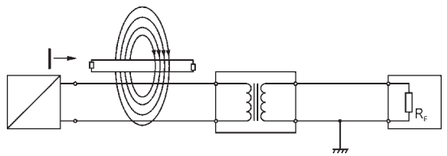



3

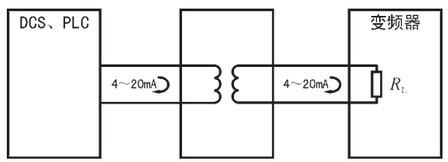



4

5 6




5




6

# AML

surge protective device (SPD)

SPD

SPD

SPD

7.6mm

I/O

20kA 8/20μs

DIN35

Ex ia IIC T4...T6 Ga

40kA 8/20μs

-40 ~+70

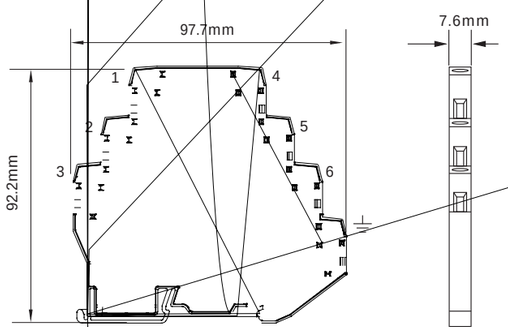
10%~90%

-40 ~+80

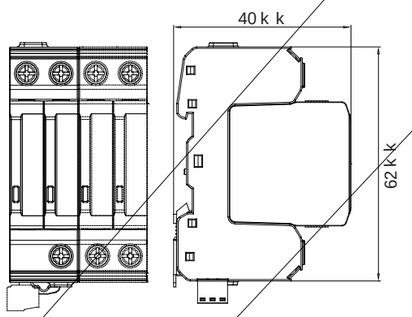
10%~90%

DIN35mm

92.2mm × 97.7mm × 7.6mm




DIN35mm




SPD

| | | Uc | IL | In(8/20μs) | Imax(8/20μs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AML1005A | 2 | 6V DC | 500mA | 10kA | 20kA | | | | | RS-485 | CAN | 63 |
| AML1005B | 3 | 6V DC | 500mA | 10kA | 20kA | | | | | | | 63 |
| AML1021 | 2 | 32V DC | 500mA | 10kA | 20kA | | | | AI | AO | DI DO | 64 |
| AML1021B | 3 | 32V DC | 500mA | 10kA | 20kA | AI | AO | DI | DO | RS-232 | | 64 |

SPD

| | | Uc | In(8/20μs) | Imax(8/20μs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AML1021X | 2 | 48V DC | 10kA | 20kA | 304 | 316 | RTD | RS-485 | AI | AO | DI | DO | 65 |
| AML1021X-3 | 3 | 48V DC | 10kA | 20kA | 304 | 316 | RTD | RS-485 | AI | AO | DI | DO | 65 |
| AML1021X-4 | 4 | 48V DC | 10kA | 20kA | 304 | 316 | RTD | RS-485 | AI | AO | DI | DO | 65 |

SPD

| | | Uc | IL | In(8/20μs) | Imax(8/20μs) | | | |
|---|---|---|---|---|---|---|---|---|
| AML1024 | 2 | 58V DC/40V AC | 10A | 10kA | 20kA | 24VDC | ≤ 10A | 66 |

SPD

| | | Uc | | In(8/20μs) | Imax(8/20μs) | Up(8/20μs) | | | |
|---|---|---|---|---|---|---|---|---|---|
| AML1220A | 320VAC | 40A gG | 10kA | 20kA | 1.2kV | | TN | 67 |
| AML1220B | 320VAC | 40A gG | 10kA | 20kA | 1.2kV | | TT | 67 |
| AML1220C | 320VAC | 40A gG | 10kA | 20kA | 1.2kV | | TN-S | 68 |
| AML1220D | 320VAC | 40A gG | 10kA | 20kA | 1.2kV | IT | TN-C | 68 |
| AML1220A- | 385VAC | 80A gG | 20kA | 40kA | 1.7kV | | TN | 69 |
| AML1220B- | 385VAC | 80A gG | 20kA | 40kA | 1.7kV | | TT | 69 |
| AML1220C- | 385VAC | 80A gG | 20kA | 40kA | 1.7kV | | TN-S | 70 |
| AML1220D- | 385VAC | 80A gG | 20kA | 40kA | 1.7kV | IT | TN-C | 70 |

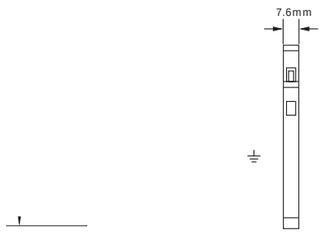
SPD

| | | Uc | In(8/20μs) | | / | | |
|---|---|---|---|---|---|---|---|
| AML10RJ45 | 8V DC | 2kA | 4 | /304 | | | 71 |
| AML10RJ45 | 60V DC | 2kA | 8 | /304 | | | 71 |
| AML10RJ45 | 60V DC | 2kA | 8 | /304 | | PoE | 71 |

## 5V

AML1005A

AML1005B

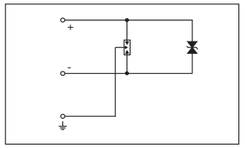



## 24V

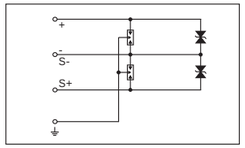
AML1021

AML1021B

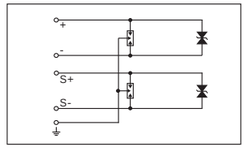
AML1021X



AML1021X-3



AML1021X-4



- C2 20kV/10kA
- D1 2.5kA
-
-
-
- RS-485 AI AO

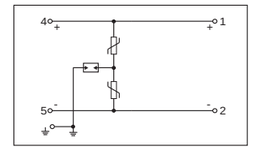
DI DO

| | | | |
|---|---|---|---|
| | | | |
| Uc | 48V DC | 48V DC | 48V DC |
| In ( 8/20μs ) | 10kA | 10kA | 10kA |
| Imax ( 8/20μs ) | 20kA | 20kA | 20kA |
| Iimp ( 10/350μs ) | 2.5kA | 2.5kA | 2.5kA |
| Up ( 8/20μs ) | 85V | 85V | 85V |
| Up ( 1kV/μs ) | 600V | 600V | 600V |
| ( -0.5dB ) | 10MHz | 10MHz | 10MHz |
| | 1ns | 1ns | 1ns |
| ( IEC60529 ) | IP 67 | IP 67 | IP 67 |
| ( ) | 304 316 | 304 316 | 304 316 |
| ( ) | 1/2" NPT 3/4" NPT M20 ×1.5 | 1/2" NPT 3/4" NPT M20 ×1.5 | 1/2" NPT 3/4" NPT M20 ×1.5 |
| | GB/T 18802.21/IEC 61643-21 | GB/T 18802.21/IEC 61643-21 | GB/T 18802.21/IEC 61643-21 |
| | | | |
| | Ex ia C T6 T4 Ga;Ex db IIC T6 T4 Gb Ex ia IIIC $T_{200}$85 $T_{200}$135 Da | Ex ia C T6 T4 Ga;Ex db IIC T6 T4 Gb Ex ia IIIC $T_{200}$85 $T_{200}$135 Da | Ex ia C T6 T4 Ga;Ex db IIC T6 T4 Gb Ex ia IIIC $T_{200}$85 $T_{200}$135 Da |
| | | | |
| | Ui=48V;Ii=500mA; Pi=5.32W; Ci=0nF;Li=0mH | Ui=48V;Ii=500mA; Pi=5.32W; Ci=0nF;Li=0mH | Ui=48V;Ii=500mA; Pi=5.32W; Ci=0nF;Li=0mH |



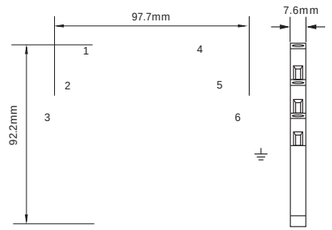


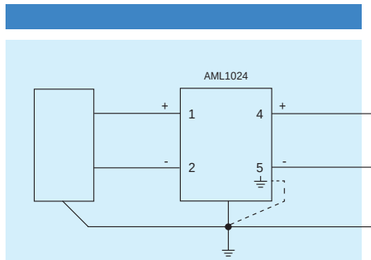
AML1024

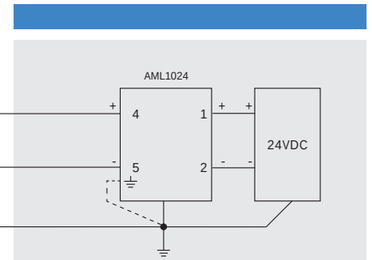



- C2 20kV/10kA
- D1 2.5kA
- 7.6mm
-

| | |
|---|---|
| | 02TBA / . ? |
| Uc | 58VDC/40VAC |
| $I_L$ | 10A |
| In ( 8/20μs ) | 10kA |
| Imax ( 8/20μs ) | 20kA |
| Iimp ( 10/350μs ) | 2.5kA |
| Up | 800V |
| | 2.5mm² |
| | 25ns |
| | <20μA |
| ( IEC60529 ) | IP 20 |
| / ( UL94 ) | PA66/V0 |
| | GB/T 18802.21/IEC 61643-21 |



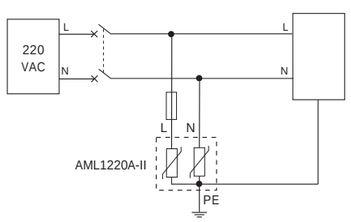
- 12mm/P
-
-
-

| | AML1220A-II | AML1220B-II |
|---|---|---|
| | | ?KJ/00.+E ?KJ/00.+ |
| Uc | 385VAC | 255VAC 385VAC |
| In ( 8/20μs ) | 20kA | 20KA 20kA |
| Imax ( 8/20μs ) | 40kA | 40kA 40kA |
| Up | 1.7kV | 1.5kV 1.7kV |
| | 80A gG | 80A gG |
| $I_{SCCR}$ ( | 1000A | 1000A |
| / | 2.5~25mm²/2.5~16mm² | 2.5~25mm²/2.5~16mm² |
| | 25ns | 25ns |
| | <20μA | <20μA |
| ( ) | 250VAC/0.5A 24VDC/0.5A | 250VAC/0.5A 24VDC/0.5A |
| ( IEC60529 ) | IP 20 | IP 20 |
| / ( UL94 ) | PA66/V0 | PA66/V0 |
| | GB/T 18802.11/IEC 61643-11 | GB/T 18802.11/IEC 61643-11 |
| | TN | TT |

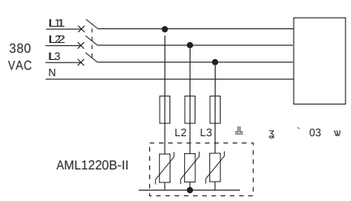
62.0mm × 84.0mm × 24.0mm

62.0mm × 84.0mm × 48.0mm

TN




TT








- 12mm/P
-
-
-

| | AML1220C-II | AML1220D-II |
|---|---|---|
| Uc | 385VAC | 385VAC |
| In ( 8/20μs ) | 20kA | 20kA |
| Imax ( 8/20μs ) | 40kA | 40kA |
| Up | 1.7kV | 1.7kV |
| | 80A gG | 80A gG |
| $I_{SCCR}$ ( | 1000A | 1000A |
| / | 2.5~25mm² | 2.5~25mm² |
| | 25ns | 25ns |
| | <20μA | <20μA |
| ( ) | 250VAC/0.5A 24VDC/0.5A | 250VAC/0.5A 24VDC/0.5A |
| ( IEC60529 ) | IP 20 | IP 20 |
| / ( UL94 ) | PA66/V0 | PA66/V0 |
| | GB/T 18802.11/IEC 61643-11 | GB/T 18802.11/IEC 61643-11 |
| | TN-S | TN-C |
| | | IT |

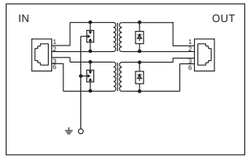
62.0mm × 84.0mm × 48.0mm

62.0mm × 84.0mm × 36.0mm

# SPD

- 
- 
- 

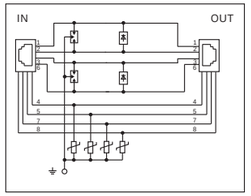
AML10RJ45



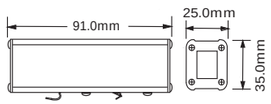

AML10RJ45

AML10RJ45

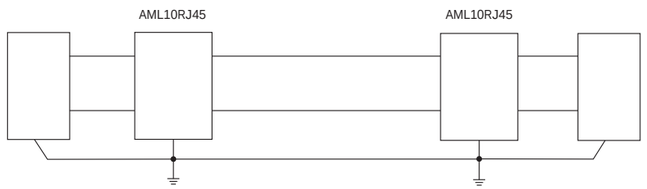
NmC




| | |
|---|---|
| Uc | 8VDC |
| In | 2kA |
| Up ( / ) | 100V/300V |
| | 100MHz |
| 0.1~50MHz | 0.5dB |
| | 1/2,3/6 |
| | RJ45 |
| IEC60529 | IP20 |
| ( / ) | /304 |
| | GB/T 18802.21/IEC 61643-21 |




□ 91.0mm × 35.0mm × 25.0mm 91.0mm × 63.6mm × 25.0mm 91.0mm × 63.6mm × 25.0mm






# Surge Protective Device

Surge Protective Device SPD

SPD

## SPD

SPD SPD SPD SPD SPD UPS

SPD PLC DCS SCADA

## SPD

SPD $10^{-9}$ μs $10^{-6}$

GDT MOV TVS

### ( GDT )

GDT ( ) ( )

GDT KA 100ns GDT

### ( MOV )

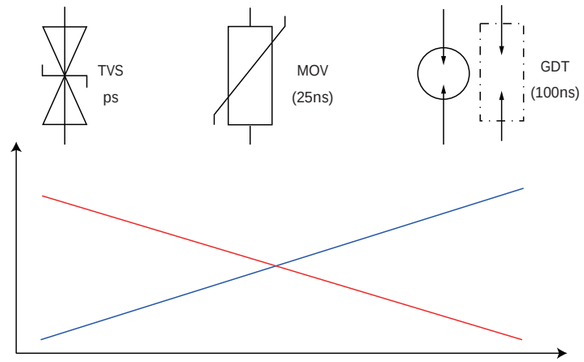
MOV

MOV SPD GDT 25ns A~

kA MOV μA SPD MOV

### ( TVS )

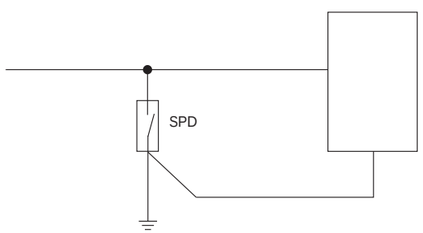
TVS ps ~ A



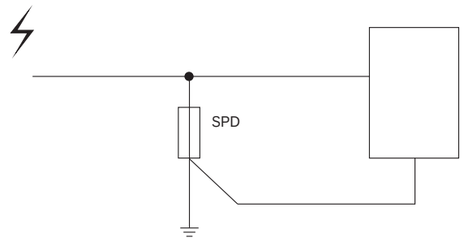

## SPD

SPD ns

SPD :




SPD




SPD

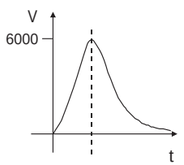
# SPD

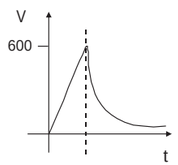
( TVS ) GDT

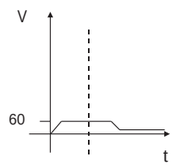
TVS 6KV/3KA SPD GDT 600V TVS

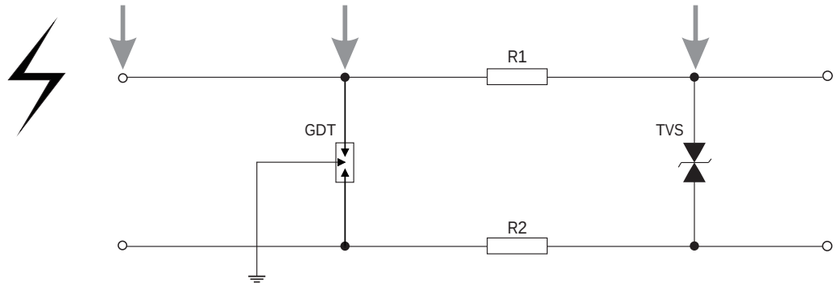
60V 1kV 2kV

SPD




# SPD

SPD

IEC 62305-4 Protection against lightning – Part 1: General principles

IEC 62305-4 Protection against lightning – Part 4: Electrical and electronic systems within structures

IEC 61643-12 Low-voltage surge protective devices – Part 12: Surge protective devices connected to low-voltage power distribution systems – Selection and application principles

GB 50057

GB 50343

GB 50650

SH/T 3164

HG/T 20513



SPD

IEC 61643-11 Low voltage surge protective devices – Part 11: Surge protective devices connected to low-voltage power systems – Requirements and test methods

IEC 61643-21 Low voltage surge protective devices – Part 21: Surge protective devices connected to telecommunications and signalling networks – Performance requirements and testing methods

IEC 61643-31 Low voltage surge protective devices – Part 31: Requirements and test methods for SPDs for photovoltaic installations

IEC 60079-0 Explosive atmosphere – Part 0: Equipment – General requirements

IEC 60079-1 Explosive atmosphere – Part 1: Equipment protection by flameproof enclosures “ d ”

IEC 60079-11 Explosive atmosphere – Part 11: Equipment protection by intrinsic safety “ i ”

GB/T 18802.11 (SPD) 1 :

GB/T 18802.21 21 : (SPD)—

GB/T 18802.31 ( ) 31 : (SPD)

GB/T3836.1 1 :

GB/T3836.2 2 : "d"

GB T15464

GB/T 20438.1-2017 / / 1 IEC 61508-1:2010

GB/T 20438.2-2017 / / 2 IEC 61508-2:2010

GB/T 20438.3-2017 / / 3 IEC 61508-3:2010

GB/T 20438.4-2017 / / 4 IEC 61508-4:2010

GB/T 20438.5-2017 / / 5 IEC 61508-5:2010

GB/T 20438.6-2017 / / 6 GB T 20438.2 GB T 20438.3 IEC 61508-6:2010

GB/T 20438.7-2017 / / 7 IEC 61508-7:2010



( ) 95%

2km [

r=λ/2π=c/2πf=3 × 10⁸/(2 × 3.14 × 25 × 10³) ≈ 2km( 25kHz c=3 × 10⁸m/s λ=c/f λ: f: π: )]

( ) 5%

10%

1 10

20~50kA

100kA

| | 99% | 90% | 50% | 10% | 1% |
|---|---|---|---|---|---|
| | ≥ 3kA | ≥ 8kA | ≥ 28kA | ≥ 80kA | ≥ 200kA |

≤ 20

20 ≤ 40

40 ≤ 60

>60

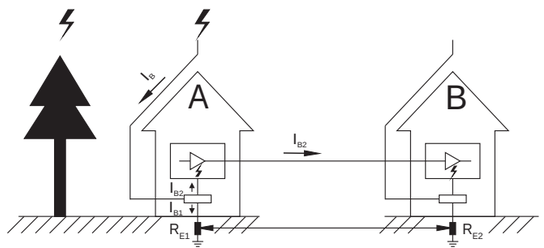
100m 6kV/3kA SPD

1) 2) 3)

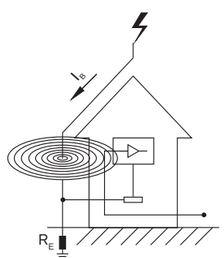
A

A B

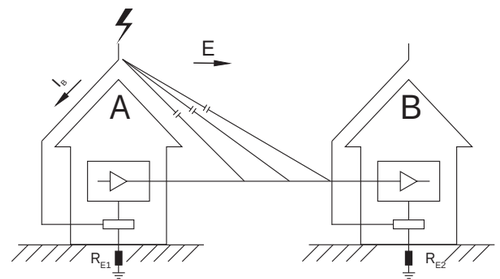
A B




( )






( Lightning Protection System, LPS )

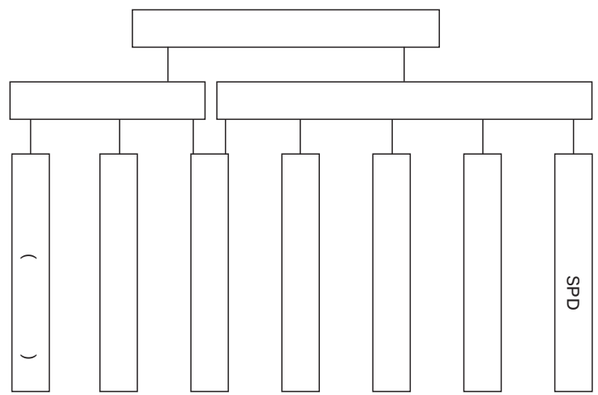
( )

)

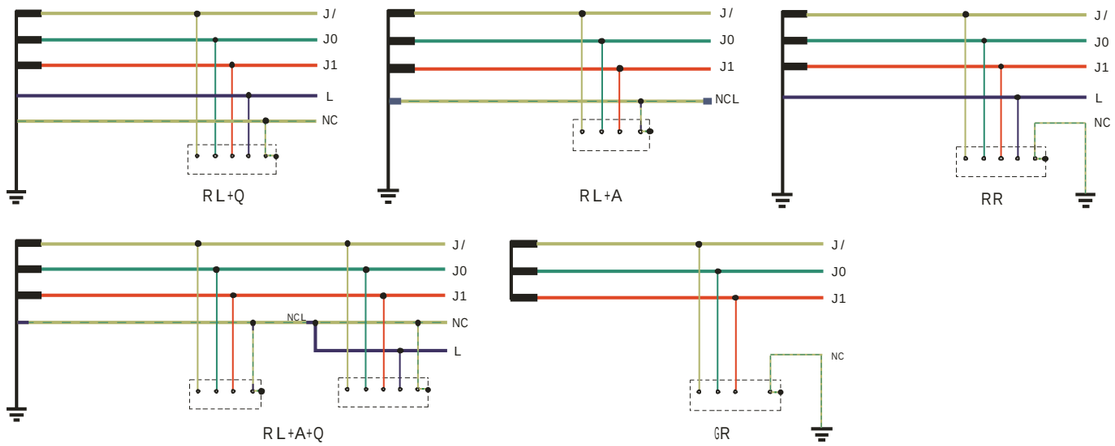
SPD

( ) ( )

SPD



| SPD | 1.2/50us 8/20us | |
|---|---|---|
| | Uoc(kV)/Isc(kA) | |
| | ≥ 10/ ≥ 5 | |
| | ≥ 10/ ≥ 5 | |
| | ≥ 6/ ≥ 3 | |
| | ≥ 6/ ≥ 3 | |




N 3

TN-S N PE N PE TN-S N PE

N PE N-PE SPD TN-S GB50057 GB50343 “

TN TN-S ”

TN-C N PE

TN-C-S TN-C TN-S

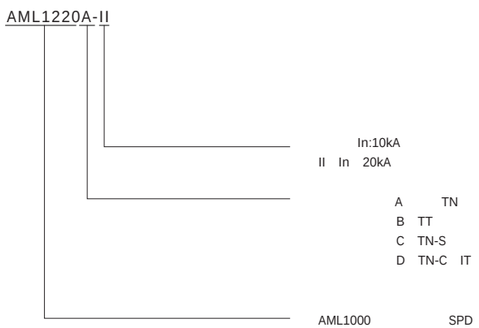
TT TN-S PE TT TN

PE PEN

IT

3

SPD




# SPD

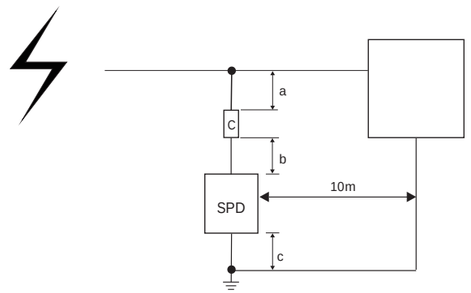
## SPD

SPD SPD SPD

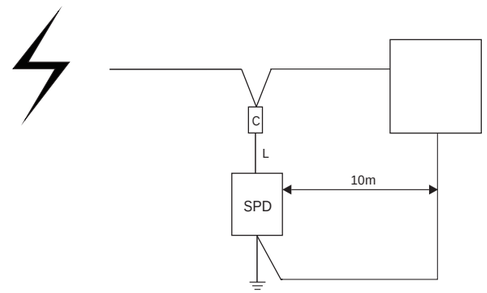
( PE ) SPD

IEC 61643-12 a+b+c 0.5m ( V

) SPD 10m SPD




a+b+c<0.5m




L 0.5m

SPD :

| SPD | SPD | ( mm² ) | |
|---|---|---|---|
| | | SPD | SPD |
| | | 6 | 10 |
| | | 4 | 6 |
| | | 2.5 | 4 |
| | | 2.5 | 4 |

## SPD

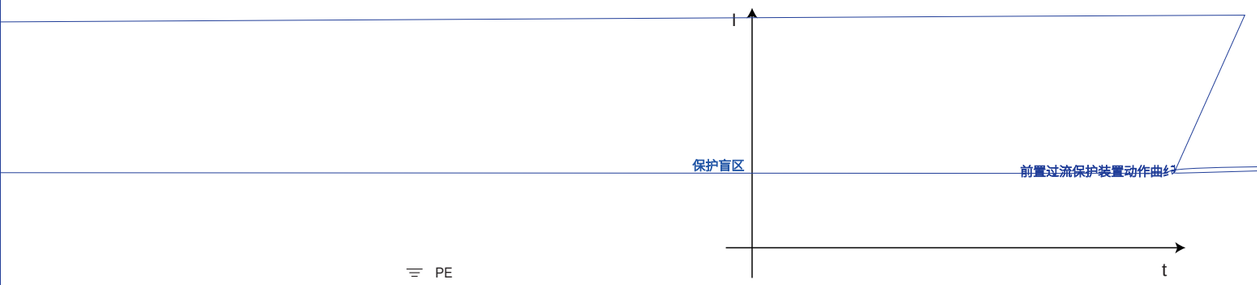
SPD SPD In ( 8/20us ) ( ) 10kA 40A gG

In=20kA 80A gG

SPD ( IEC 61643-12 )

| 8/20us | | 10/350us | | ( A ) gG |
|---|---|---|---|---|
| ( kA ) | ( kA ) | ( kA ) | ( kA ) | |
| 7.6 | 5 | | | 25 |
| 9.6 | 7 | | | 32 |
| 13.4 | 10 | | | 40 |
| 17.3 | 15 | | | 50 |
| 23.1 | 17 | | | 63 |
| 32.2 | 25 | | | 80 |
| 41.4 | 30 | 8.8 | 5 | 100 |
| 53.4 | 40 | 11.3 | 7 | 125 |
| | | 15.3 | 10 | 160 |
| | | 19.75 | 15 | 200 |
| | | 27.93 | 20 | 250 |
| | | 34.21 | 25 | 315 |

SPD SPD SPD SPD




SPD F2

1: SPD

2: SPD F2

3: SPD F2 F1

F2 ( 1) ( 3)

F2 F1 F2 SPD SPD

A F1 F2 ( )

| F1 A | | SPD |
|---|---|---|
| F1 ≥ 1.6A | F2 A | F2 A |
| A ≤ F1 1.6A | F2 F1/1.6 | F2 A |
| F1 A | F2 F1/1.6 | F2 |

F2 SPD ( 2)

SPD SPD

## SPD

1 GB50057

2

3

4 150kA ≥ 2 /

5

## SPD





## SPD

SPD :

## SPD

SPD SPD SPD — SPD

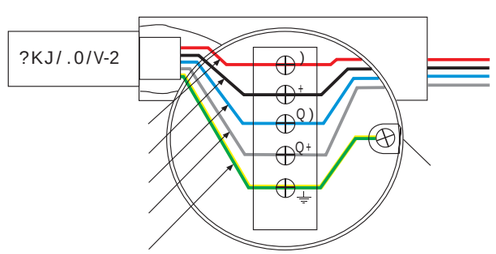
SPD

SPD

SPD SPD

CCC

:

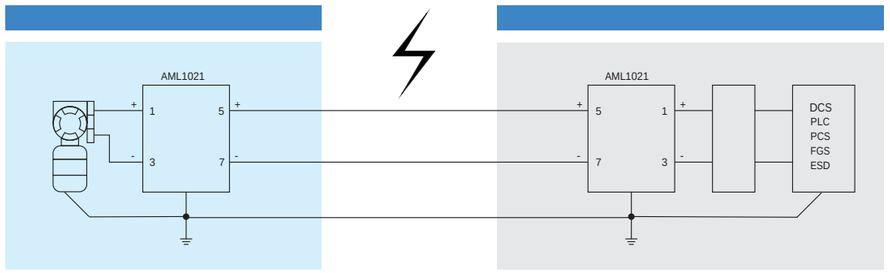



## SPD

SPD DIN 35mm SPD SPD

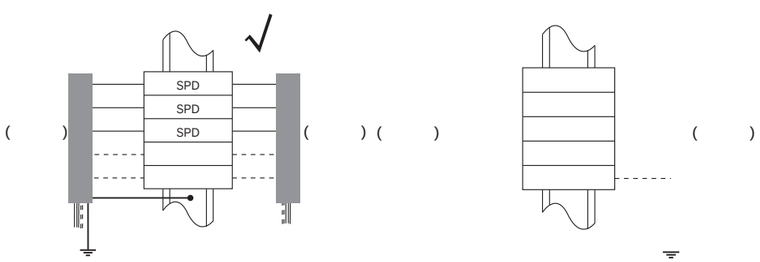
AI AO SPD I/O SPD

SPD




## SPD

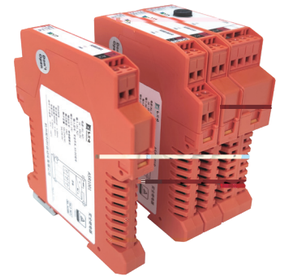
SPD SPD



## ASR1001

ASR1001 SIS DO
1 N/O 3
IEC61508 SIL3

ASR1001: 114.5mm × 99.0mm × 12.5mm × ×

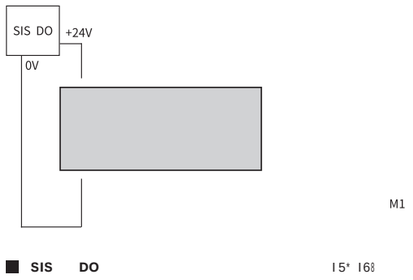


24V DC
16V~35V DC
≤ 35mA (24V DC)

≤ 35mA (24V DC)
≤ 15Ω
SIS DO

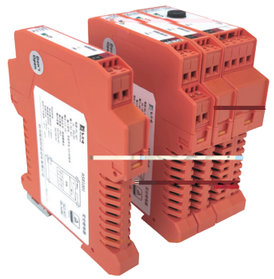
**1N/O**
$AgSnO_2$+Au
5A ( )
5A/250V AC 5A/24V DC
$10^7$

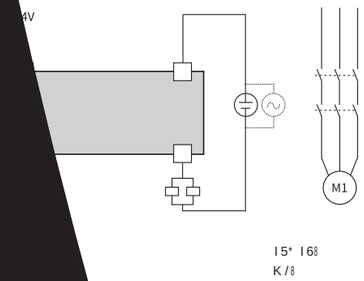
≤ 30ms




■ **SIS DO**

ASR1001R: 114.5mm × 99.0mm × 12.5mm × ×





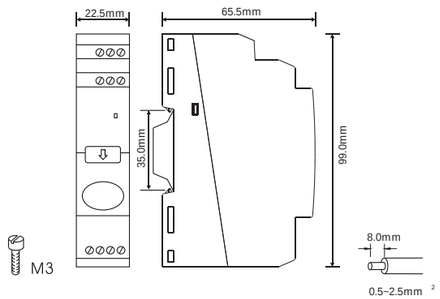
## AD10

| | | | | | |
|---|---|---|---|---|---|
| AD10IA-10 | | 0~1A/5A/10A AC | 0~20mA/4~20mA/1~5V/0~5V/0~10V | 20~30V DC | 96 |
| AD10IA-10A | | 0~1A/5A/10A AC | 0~20mA/4~20mA/1~5V/0~5V/0~10V | 90V~260V AC/120V~300V DC | 96 |
| AD10ID-10 | | 0~1A/2A/5A/10A DC | 0~20mA/4~20mA/1~5V/0~5V/0~10V | 20~30V DC | 97 |
| AD10ID-10A | | 0~1A/2A/5A/10A DC | 0~20mA/4~20mA/1~5V/0~5V/0~10V | 90V~260V AC/120V~300V DC | 97 |
| AD10VA-370 | | 0~30V/50V/120V/250V/500V AC | 0~20mA/4~20mA/1~5V/0~5V/0~10V | 20~30V DC | 98 |
| AD10VA-370A | | 0~30V/50V/120V/250V/500V AC | 0~20mA/4~20mA/1~5V/0~5V/0~10V | 90V~260V AC/120V~300V DC | 98 |
| AD10VD-400 | | 0~100V/0~1000V | 0~20mA/4~20mA/1~5V/0~5V/0~10V | 20~30V DC | 99 |

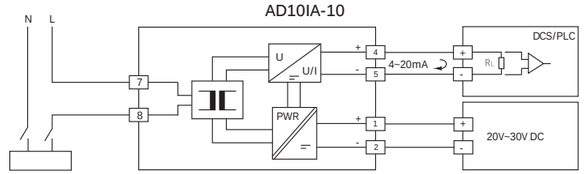


▪
▪35mm
▪

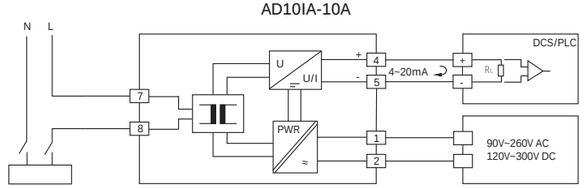
| | | ?B/.ℂ?+/. | ?B/.ℂ?+/.? |
|---|---|---|---|
| | In | 0~1A/5A/10A AC | 0~1A/5A/10A AC |
| | Imax | 1.2 × In 2 × In 1 | 1.2 × In 2 × In 1 |
| | | 40Hz~60Hz | 40Hz~60Hz |
| | | 4~20mA/0~20mA | 4~20mA/0~20mA |
| | | 30mA | 30mA |
| | | ≤ 550Ω | ≤ 550Ω |
| | | 1~5V/0~10V/0~5V | 1~5V/0~10V/0~5V |
| | | 15V | 15V |
| | | ≥ 300kΩ | ≥ 100kΩ |
| | | 20V~30V DC | 120V~300V DC/90V~260V AC |
| | | 1W 40mA 24V | 3VA 1.2W |
| | | 330ms 90% | 330ms 90% |
| | | ≤ 0.5% F.S. | ≤ 0.5% F.S. |
| | | ≤ 0.02%F.S./ | ≤ 0.02%F.S./ |
| | | -20 ~+60 | -20 ~+60 |
| | | -40 ~+80 | -40 ~+80 |
| | | 10%~90% | 10%~90% |
| | | 2 | 2 |
| | | GB/T 18268.1(IEC 61326-1) | GB/T 18268.1(IEC 61326-1) |
| | | 99.0mm × 65.5mm × 22.5mm | 99.0mm × 65.5mm × 22.5mm |
| | | GB4793.1(IEC 61010-1) | GB4793.1(IEC 61010-1) |
| | ~ | 4000V AC 1min | 4000V AC 1min |
| | | 4000V | 4000V |
| | | 100MΩ | 100MΩ |
| | IEC60529 | IP20 | IP20 |



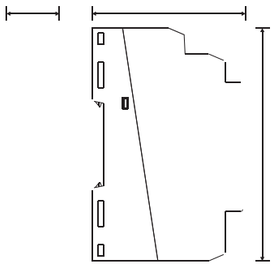

AD10IA-10




AD10IA-10A



| | |
|---|---|
| 0~20mA/4~20mA | 0~20mA/4~20mA |
| 25mA | 30mA |
| ≤ 550Ω | ≤ 550Ω |
| 0~10V/0~5V/1~5V | 0~10V/0~5V/1~5V |
| 12.5V | 15V |
| ≥ 100kΩ | ≥ 100kΩ |
| | |
| 20V~30V DC | 120V~300V DC/90V~260V AC |
| ≤ 1W 40mA 24V | 3VA 1.2W |
| 330ms 90% | 330ms 90% |
| ≤ 0.5% F.S. | ≤ 0.5% F.S. |
| ≤ 0.02%F.S./ | ≤ 0.02%F.S./ |
| -20 ~+60 | -20 ~+60 |
| -40 ~+80 | -40 ~+80 |
| 10%~90% | 10%~90% |
| 2 | 2 |
| GB/T 18268.1(IEC 61326-1) | GB/T 18268.1(IEC 61326-1) |
| 99.0mm × 65.5mm × 22.5mm | 99.0mm × 65.5mm × 22.5mm |
| | |
| GB4793.1(IEC 61010-1) | GB4793.1(IEC 61010-1) |
| 2500V AC 1min | 2500V AC 1min |
| 4000V | 4000V |
| 100MΩ | 100MΩ |
| IP20 | IP20 |



20V~30V DC

4~20mA

0~10V

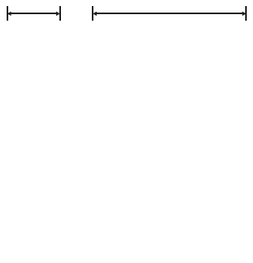
90V~260V AC
120V~300V DC

2

0~20mA/4~20mA
24mA
≤ 550Ω
0~10V/0~5V/1~5V
12V
≥ 300kΩ

20V~30V DC
≤ 1W
200ms 90%
0.2% F.S.
0.01%F.S./
-20 ~+60
-40 ~+80
10%~90%
2
GB/T 18268(IEC 61326-1)
99.0mm × 65.5mm × 22.5mm

GB4793.1(IEC 61010-1)
2500V AC 1min
4000V
100MΩ
IP20



# HOLLiAS Config

HOLLiAS Config AM1000EX/AM2000EX
AMG1000 Windows
USB

3

WnidowsXP
USB
HOLLiAS Config USB
USB RS232

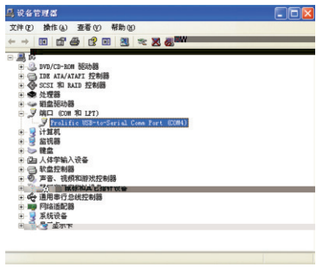
1

1

“ HOLLiAS Config V*.*\ \ PL2303_Prolific_ WDMDriver_v152.exe ”

“ COM LPT ” \ \ \ \ “ Prolific USB-to-Serial Comm Port(com*) ” “ com* ”

2



2 COM

## HOLLiAS Config

, “ HOLLiAS Config \HOLLiAS Config \HOLLiAS Config.exe ”

, “ HOLLiAS Config.exe ” 3

## COM

“ ” COM
“ COM ”

“ ”

4

4

“ ” “ ” “ ” 5

(1)

“ ”

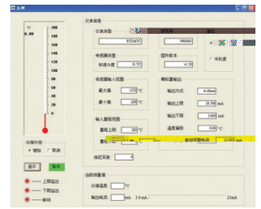
PC

(2)

“ ”

“ ”

“ ”



5

, GB 50257-2014

“

” GB/T3836.15-2017 “ 15

” GB/T3836.13-2021 “ 13

” GB/T3836.16-2017 “

16 ”

800mm × 2100mm × 800mm × ×

114.5mm × 99.0mm × 12.5mm × ×

114.5mm × 99.0mm × 17.5mm × ×

82

96

356

1 24VDC/20A 2

2 220VAC 2

3 24VDC 4 2

4 35mmDIN 1800mm 4

5 8

700~1000

1400 4

0.5mm²~2.5mm²

DCS

DCS I/O DCS

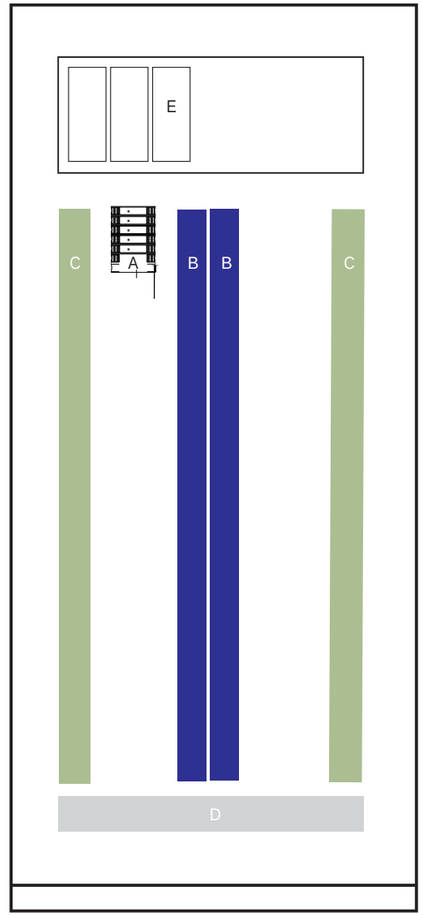
A:

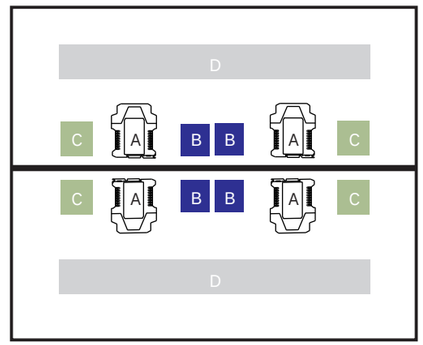
B:

C:

D:

E: DCS I/O



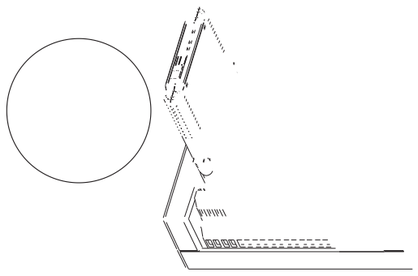



# AM2000EX

AM2000EX ,
, GB 50257-2014 “
”
GB/T3836.15-2017 “ 15
” GB/T3836.13-2021 “ 13
” GB/T3836.16-2017 “ 16
”

AM2000EX AM2000EX

“ Open ”
;



;

# AM1000EX

## AM1000EX

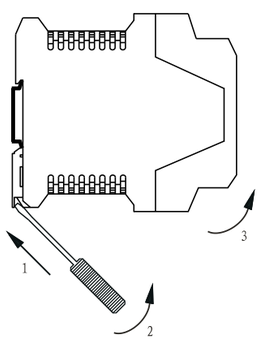
AM1000EX DIN35mm

1)
2)


2

## AM1000EX

1)
2) ,
3)



2.5mm²

16~25A

4~6mm²　　≥ 6mm²