

# Inductive proximity switch SI30/HT/100

Short circuit protected proximity switch for  
10 – 55 V DC with 3-wire technology.

PNP – normally open

The Sensor is suitable for higher ambient  
temperature by the increased temperature  
range.

## Technical Data

Type

SI30/HT/100

### Connection

2 m silicone cable (SIK)

5 m silicone cable (SIK)

10 m silicone cable (SIK)

15 m silicone cable (SIK)

20 m silicone cable (SIK)

Rated operating distance ( $S_n$ )

15 mm

Output

PNP n. o.

Operating distance adjustable

no

Target steel St37, 1 mm thick

45 x 45 mm

Location at metal

non flush

Supply voltage ( $U_B$ )

10 - 55 V DC

Ripple voltage

max. 15 %

Load current max.

0 - 400 mA

Short- time load current

0,8 A / 100 ms

2 A / 10 ms

Short circuit protection

yes, pulsing

No load current ( $I_0$ )

< 10 mA

Voltage drop ( $U_d$ )

1,5 V / 50 mA

Operating frequency (f)

200 Hz

Switching hysteresis (H)

1 - 15 %

Ambient temperature

-20 ... +100 °C

Protection class

IP 67

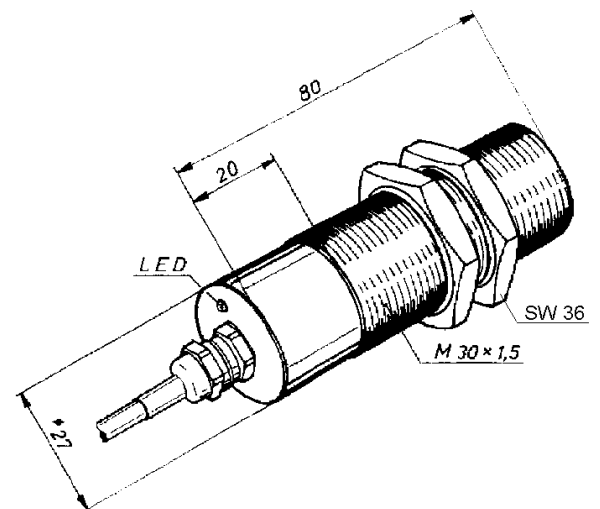
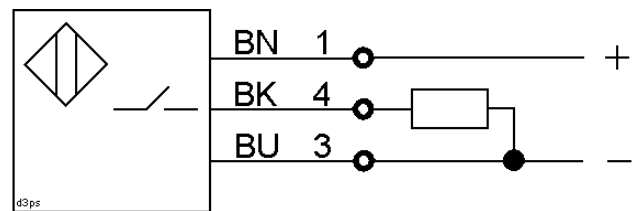
Function display

LED

Housing material

plastic PBT

## Diagram of Connections



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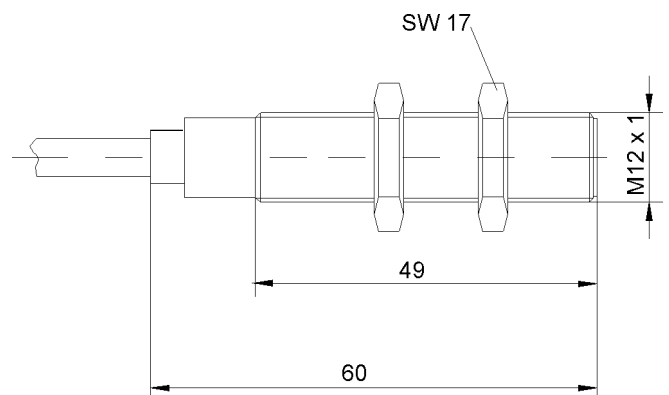
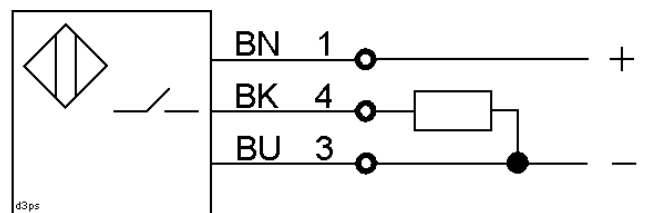
# Inductive proximity switch SI12/HT/150

Short circuit protected proximity switch with increased temperature range and M12 metal-housing.

## Technical Data

Rated operating distance (Sn)	3 mm
Operating distance adjustable	no
Output	PNP n. o.
Target steel St37, 1 mm thick	12 x 12 mm
Location at metal	flush
Supply voltage (UB)	10 - 30 V DC
Ripple voltage	< 15 %
Load current max.	120 mA / +100 °C 70 mA / +150 °C
Short circuit protection	yes
Voltage drop (Ud)	2 V
Operating frequency (f)	200 Hz
Switching hysteresis (H)	max. 15 %
Ambient temperature	-25 ... +150 °C
Protection class	IP 67
Connection	2 m silicone cable
Function display	no
Housing material	stainless steel

## Diagram of Connections



# Inductive proximity switch SI18/HT/150

Proximity switch with M18 metal-housing for lower operating distances.

The Sensor is suitable for higher ambient temperature by the increased temperature range.

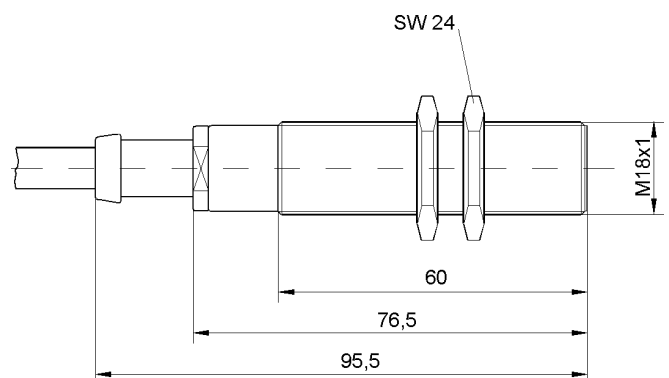
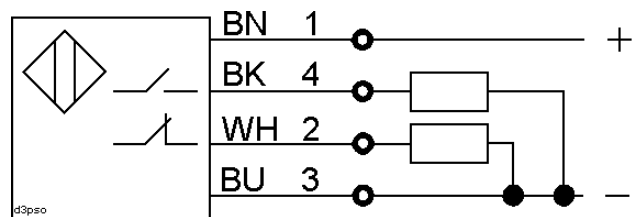
## Technical Data

### Connection

5 m silicone cable

Rated operating distance (Sn)	5 mm
Output	PNP n. o. + n. c.
Target steel St37, 1 mm thick	18 x 18 mm
Location at metal	flush
Supply voltage (UB)	10 - 30 V DC
Ripple voltage	< 15 %
Load current max.	0 - 400 mA <70 °C 0 - 150 mA >70 °C
Short circuit protection	no
No load current (I0)	≤ 25 mA
Voltage drop (Ud)	≤ 1,5 V
Operating frequency (f)	200 Hz
Switching hysteresis (H)	max. 15 %
Ambient temperature	-25 ... +120 °C
Protection class	IP 67 on active surface
Function display	no
Housing material	brass, nickel plated

### Diagram of Connections



# Inductive proximity switch SI18/HT/175

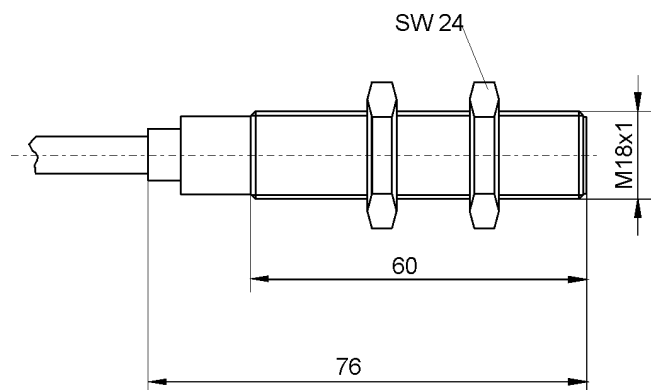
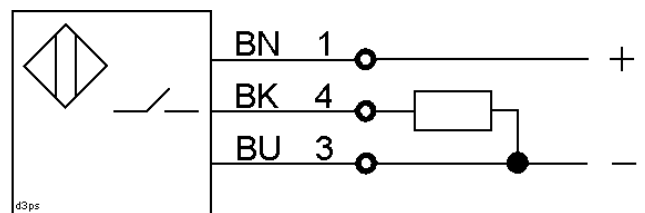
Short circuit protected proximity switch with M18 metal-housing for lower operating distances.

The Sensor is suitable for higher ambient temperature by the increased temperature range.

## Technical Data

Rated operating distance ( $S_n$ )	5 mm
Output	PNP n. o.
Target steel St37, 1 mm thick	18 x 18 mm
Location at metal	flush mount
Supply voltage ( $U_B$ )	10 - 30 V DC
Ripple voltage	< 10 %
Load current max.	0 - 150 mA
Short circuit protection	yes, pulsing
Voltage drop ( $U_d$ )	2 V
Operating frequency (f)	400 Hz
Switching hysteresis (H)	max. 15 %
Ambient temperature	-40 ... +175 °C
Protection class	IP 67
Connection	2m silicone cable
Function display	no
Housing material	stainless steel

## Diagram of Connections



# Inductive proximity switch SI30/HT/120

Proximity switch with M30 metal-housing for lower operating distances.

The Sensor is suitable for higher ambient temperature by the increased temperature range.

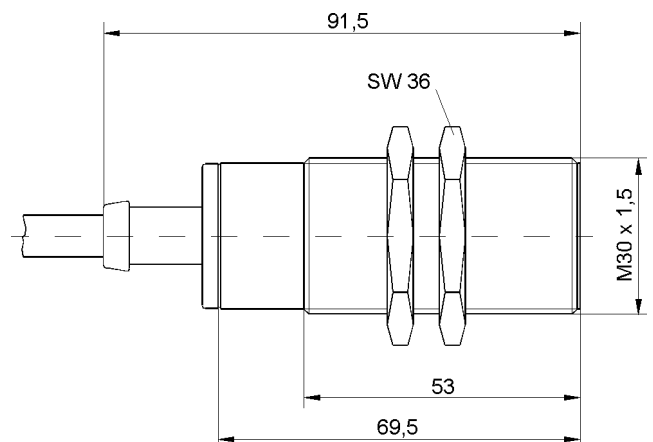
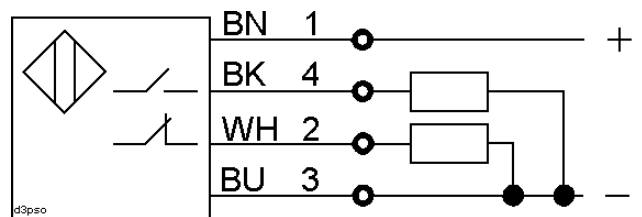
## Technical Data

### Connection

5 m silicone cable

Rated operating distance (Sn)	10 mm
Output	PNP n. o. + n. c.
Target steel St37, 1 mm thick	30 x 30 mm
Location at metal	flush
Supply voltage (UB)	10 - 30 V DC
Ripple voltage	< 15 %
Load current max.	0 - 400 mA <70 °C 0 - 150 mA >70 °C
Short circuit protection	no
No load current (I <sub>0</sub> )	≤ 15 mA
Voltage drop (U <sub>d</sub> )	≤ 1,5 V
Operating frequency (f)	300 Hz
Switching hysteresis (H)	max. 15 %
Ambient temperature	-25 ... +120 °C
Protection class	IP 67 on active surface
Function display	no
Housing material	brass, nickel plated

### Diagram of Connections



# Inductive proximity switch SI30/HT/175

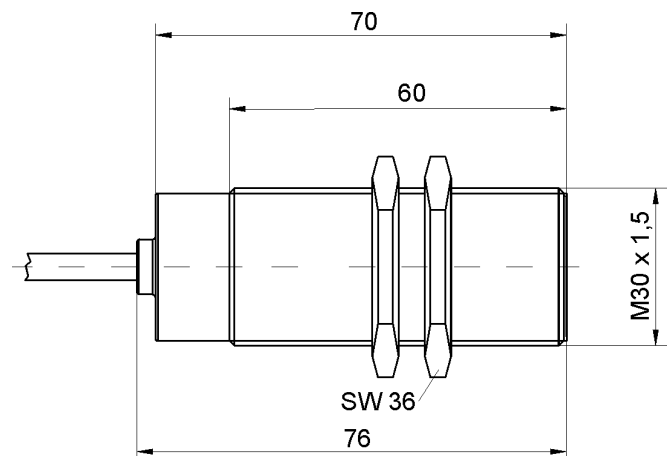
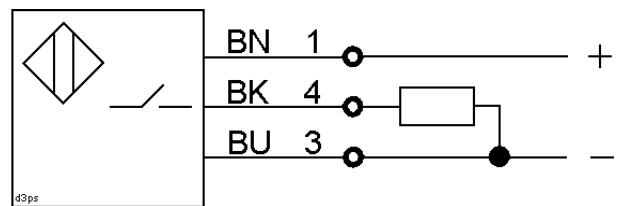
Short circuit protected proximity switch with M30 metal-housing for lower operating distances.

The Sensor is suitable for higher ambient temperature by the increased temperature range.

## Technical Data

Rated operating distance (Sn)	10 mm
Output	PNP n. o.
Operating distance adjustable	no
Target steel St37, 1 mm thick	30 x 30 mm
Location at metal	shielded
Supply voltage (UB)	10 - 30 V DC
Ripple voltage	< 15 %
Load current max.	0 - 150 mA
Short circuit protection	yes, pulsing
Voltage drop (Ud)	2 V
Operating frequency (f)	200 Hz
Switching hysteresis (H)	max. 15 %
Ambient temperature	-40 ... +175 °C
Protection class	IP 67
Connection	2 m silicone cable
Function display	no
Housing material	stainless steel

## Diagram of Connections

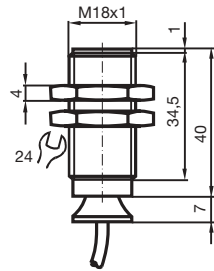


# Inductive proximity switches SI5/18/150/C10

Temperature rang

-40 ... 150 °C

5 mm embeddable

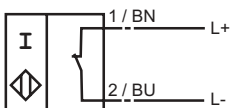


CE 0102

Switching element function	NAMUR NC
Rated operating distance $s_n$	5 mm
Installation	embeddable
Assured operating distance $s_a$	0 ... 4,05 mm
Reduction factor $r_{AI}$	0,4
Reduction factor $r_{Cu}$	0,3
Reduction factor $r_{V2A}$	0,85
Nominal voltage $U_o$	8 V
Switching frequency $f$	0 ... 500 Hz
Current consumption	
Measuring plate not detected	≤ 3 mA
Measuring plate detected	≤ 1 mA
EMC in accordance with	EN 60947-5-2
Standards	DIN EN 60947-5-6 (NAMUR)
Ambient temperature	-40 ... 150 °C (233 ... 423 K)
Connection type	2 m, SIHF-cable
Core cross-section	0.34 mm <sup>2</sup>
Housing material	PPS
Sensing face	PPS
Protection degree	IP65
Use in the hazardous area	see instruction manuals
Category	2G

## Connection\_type:

N / NO



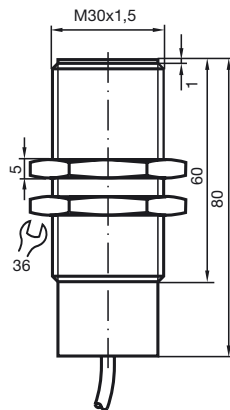
# Inductive proximity switch

SI-30-100-C10

Temperature range

-25 ... 100 °C

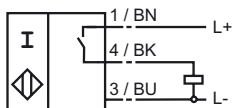
10 mm embeddable



Switching element function	PNP	Make function
Rated operating distance $s_n$	10 mm	
Installation	embeddable	
Assured operating distance $s_a$	0 ... 8,1 mm	
Reduction factor $r_{AI}$	0,4	
Reduction factor $r_{Cu}$	0,3	
Reduction factor $r_{V2A}$	0,85	
Operating voltage $U_B$	10 ... 30 V	
Switching frequency $f$	0 ... 300 Hz	
Hysteresis $H$	0 ... 10 typ. %	
Reverse polarity protection	Protected against reverse polarity	
Short circuit protection	pulsing	
Voltage drop $U_d$	$\leq 3$ V	
Operating current $I_L$	0 ... 200 mA	
No-load supply current $I_0$	$\leq 20$ mA	
Standards	EN 60947-5-2	
Ambient temperature	-25 ... 100 °C (248 ... 373 K)	
Connection type	2 m, PUR cable	
Core cross-section	0.75 mm <sup>2</sup>	
Housing material	PBT	
Sensing face	PBT	
Protection degree	IP68	

## Connection\_type:

E2



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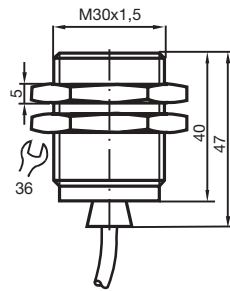


# Inductive proximity switches SI15/30/150/C10

Temperature range

-25 ... 150 °C

15 mm not embeddable



CE 0102

Switching element function

NAMUR NC

Rated operating distance  $s_n$

15 mm

Installation

not embeddable

Assured operating distance  $s_a$

0 ... 12,15 mm

Reduction factor  $r_{AI}$

0,4

Reduction factor  $r_{Cu}$

0,3

Reduction factor  $r_{V2A}$

0,85

Nominal voltage  $U_o$

8 V

Switching frequency  $f$

0 ... 100 Hz

Current consumption

Measuring plate not detected

3 mA

Measuring plate detected

1 mA

EMC in accordance with

Ambient temperature

-25 ... 150 °C (248 ... 423 K)

Connection type

2 m, SIHF-cable

Core cross-section

0.34 mm<sup>2</sup>

Housing material

PPS

Sensing face

PPS

Protection degree

IP65

Use in the hazardous area

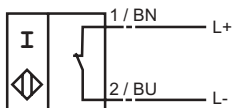
see instruction manuals

Category

2G

## Connection\_type:

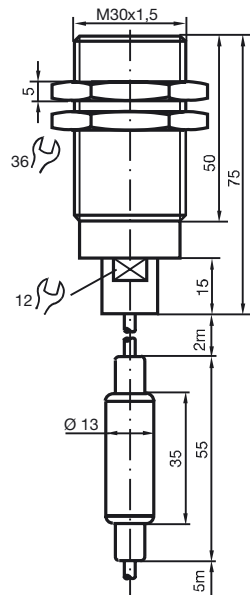
N / NO



# Inductive proximity switches

SI4/30/200

Temperature range  
0 ... 200 °C  
4 mm embeddable



CE 0102

## General specifications

Switching element function	NAMUR NC
Rated operating distance $s_n$	4 mm
Installation	embeddable
Assured operating distance $s_a$	0 ... 3,04 mm
Reduction factor $r_{Al}$	0,4
Reduction factor $r_{Cu}$	0,3
Reduction factor $r_{V2A}$	0,85

## Nominal ratings

Nominal voltage $U_o$	8 V
Switching frequency $f$	0 ... 1000 Hz
Hysteresis $H$	typ. %
Current consumption	
Measuring plate not detected	■ 3 mA
Measuring plate detected	■ 1 mA

## Standard conformity

EMC in accordance with

## Ambient conditions

Ambient temperature	0 ... 200 °C (273 ... 473 K)
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## Mechanical specifications

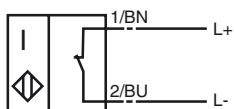
Connection type	5 m, SIHF-cable
Core cross-section	0.34 mm <sup>2</sup>
Housing material	Stainless steel
Sensing face	PPS
Protection degree	IP65
Note	amplifier -25°C...70°C 2 m Teflon cable between amplifier and oscillator

## General information

Use in the hazardous area	see instruction manuals
Category	1G; 2G

## Connection type:

N / NO



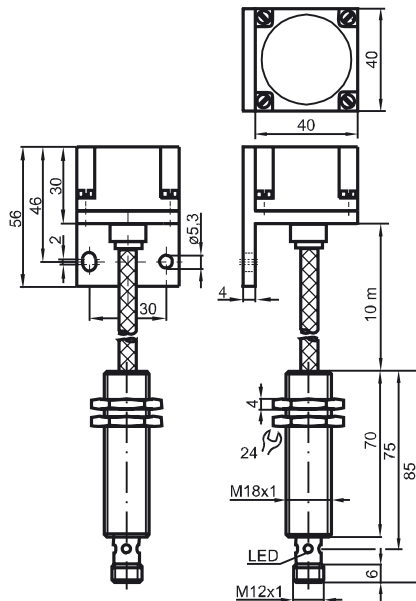
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# Inductive proximity switches

SI25/35/250

25 mm embeddable mountable

Temperature range of sensor component, 0 ... 250 °C  
10 m cable between sensor and amplifier with metal case



## General specifications

Switching element function  
Rated operating distance  $s_n$

PNP Antivalent

Assured operating distance  $s_a$   
Reduction factor  $r_{Al}$   
Reduction factor  $r_{Cu}$   
Reduction factor  $r_{V2A}$   
Mounting angle  
Amplifier housing

0 ... 20 mm  
0,5  
0,5  
0.6 ... 1  
Al  
Stainless steel

## Nominal ratings

Operating voltage  $U_B$   
Switching frequency  $f$   
Hysteresis  $H$   
Reverse polarity protection  
Short-circuit protection  
Voltage drop  $U_d$   
Operating current  $I_L$   
No-load supply current  $I_0$   
Indication of the switching state

10 ... 30 V  
0 ... 20 Hz  
0,3 ... 5 typ. 2 %  
Protected against reverse polarity pulsing  
■ 3 V  
0 ... 200 mA  
■ 25 mA  
Multihole-LED, yellow

## Standard conformity

## Ambient conditions

Ambient temperature

0 ... 250 °C (273 ... 523 K)

## Mechanical specifications

Connection type  
Housing material  
Sensing face  
Protection degree

V1-connector  
PTFE / Al / V2A  
PTFE (Teflon)  
amplifier IP67  
sensor IP40

Note

- amplifier 0 °C ... 70 °C  
-  $r_{V2A}$  dep. on thickness of measurement plate  $d$ :  
 $r_{V2A} = 1$  for  $d < 1$  mm Additional accessory:  
Protective cover is available for use in areas where there is moisture and as a means of mechanical protection.

## Data for application in conjunction with hazardous areas

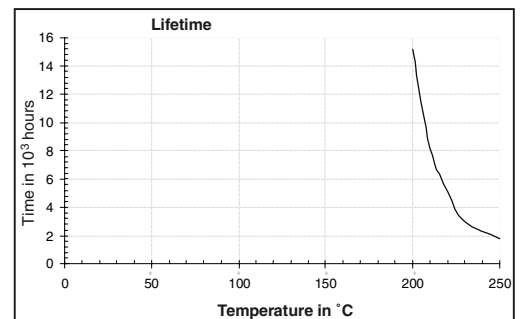
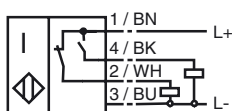
UL-approval, General Purpose



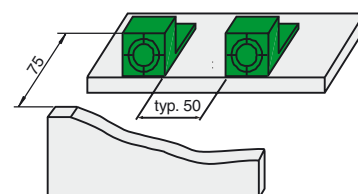
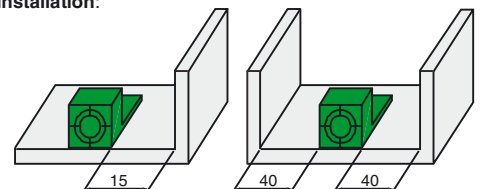
Power from Class 2 Power Source

## Connection type:

A2

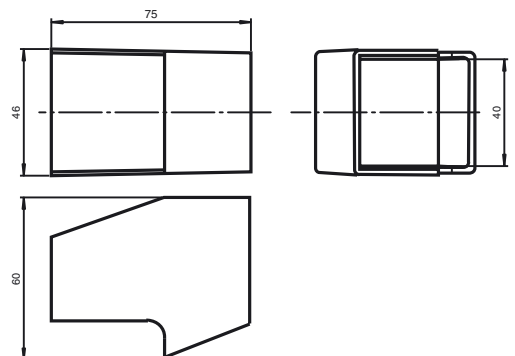


## Installation:



## Accessories:

Protective Cover SH-F35



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