HF420 MINIATURE INTERMEDIATE POWER RELAY

c UL us
File No.:E43203

File No.:0110 Gr,A

Features

- Life expectancy greater than 100 million operations
- DC coils to 115V
- Dry circuit,2 Amp,3 Amp or 7.5 Amp contacts
- Rugged construction for high reliability
- Printed circuit or solder/plug-in terminals
- Sealed version available (2 and 4 pole)

CONTACT DATA

Contact Arrangement	2C,4C,6C
Initial Contact Resistance Max.	100mΩ(1A 24VDC)
Contact Material	AgCe
Contact Rating (Res. Load)	A:2A 26VDC/115VAC B:3A 28VDC/115VAC C:5A 26VDC/115VAC D:7.5A 28VDC/115VAC
Max. Switching voltage	300VAC/150VDC
Max. Switching Power	870VA/225W
Ambient temperature	Standard: 2 to 4 pole -55°C to 80°C 6 pole -55°C to 65°C Sensitive: 2 to 6 pole -55°C to 95°C
Vibration Resistance	DA: 1.5mm,10 to 55Hz
Shock Resistance	196m/s^2(20g)
Initial Insulation Resistance	10000M(100VDC)
Dielectric Strength	Between coil and Contacts:1500Vrms Between Contacts Sets:1000Vrms Between open contacts: 500Vrms
Operate time (at nomi. Volt.)	16ms
Release time (at nomi. Volt.)	4ms
Unit weight	23 to 35g
Mechanical life	1 x 10^{7}OPS
Electrical life	1 x 10^{5}OPS

COIL DATA

Unsealed standard (2,4 Pole)

Nominal Voltage VDC	Coil Resistance Ω(±10%)	Pick-up Voltage VDC(max.)	Drop-out Voltage VDC(min.)
3	14	2.25	0.15
6	52	4.5	0.3
12	185	9.0	0.6
18	430	13.0	0.9
24	700	18.0	1.2
48	2500	36.0	2.4
72	5800	54.0	3.6
115	15000	86.0	5.8

COIL DATA

Unsealed standard (6 Pole)

Nominal Voltage VDC	Coil Resistance Ω(±10%)	Pick-up Voltage VDC(max.)	Drop-out Voltage VDC(min.)
3	11	2.25	0.15
6	25	4.5	0.3
12	90	9.0	0.6
18	230	13.0	0.9
24	430	18.0	1.2
48	1800	36.0	2.4
72	3600	54.0	3.6
115	9000	86.0	5.8

Unsealed sensitive (2 Pole)

Nominal Voltage VDC	Coil Resistance Ω(±10%)	Pick-up Voltage VDC(max.)	Drop-out Voltage VDC(min.)
3	50	2.25	0.15
6	200	4.5	0.3
12	800	9.0	0.6
24	3200	18.0	1.2
48	13000	36.0	2.4

Unsealed sensitive (4 Pole)

Nominal Voltage VDC	Coil Resistance Ω(±10%)	Pick-up Voltage VDC(max.)	Drop-out Voltage VDC(min.)
3	30	2.25	0.15
6	110	4.5	0.3
12	450	9.0	0.6
24	1800	18.0	1.2
48	7500	36.0	2.4

COIL DATA

Unsealed sensitive (6 Pole)

Nominal Voltage VDC	Coil Resistance Ω(±10%)	Pick-up Voltage VDC(max.)	Drop-out Voltage VDC(min.)
3	20	2.25	0.15
6	80	4.5	0.3
12	320	9.0	0.6
24	1200	18.0	1.2
48	5200	36.0	2.4

Sealed sensitive (2 Pole)

Nominal Voltage VDC	Coil Resistance Ω(±10%)	Pick-up Voltage VDC(max.)	Drop-out Voltage VDC(min.)
6	200	4.5	0.3
12	800	9.0	0.6
24	3200	18.0	1.2
48	13000	36.0	2.4

Sealed standard (2,4 Pole)

Nominal Voltage VDC	Coil Resistance Ω(±10%)	Pick-up Voltage VDC(max.)	Drop-out Voltage VDC(min.)
6	52	4.5	0.3
12	185	9.0	0.6
24	700	18.0	1.2
48	2500	36.0	2.4
115	15000	86.0	5.8

Sealed sensitive (4 Pole)

Nominal Voltage VDC	Coil Resistance Ω(±10%)	Pick-up Voltage VDC(max.)	Drop-out Voltage VDC(min.)
6	110	4.5	0.3
12	450	9.0	0.6
24	1800	18.0	1.2
48	7500	36.0	2.4

ORDERING INFORMATION

HF420 / S 012 A

Type
HF420: Unsealed,2C, Soldering, Plug-in
HF428: Unsealed,2C, PCB
HF421: Unsealed,4C, Soldering, Plug-in
HF429: Unsealed,4C, PCB
HF431: Unsealed,6C, Soldering, Plug-in
HF439: Unsealed,6C, PCB
HF2428: Sealed,2C, PCB
HF2429: Sealed,4C, PCB

Coil Power **N:** Standard **S:** Sensitivity

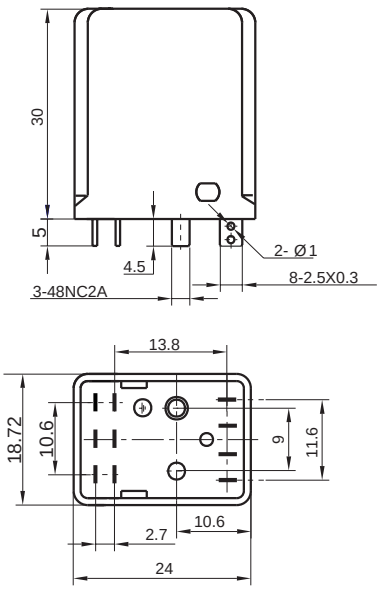
Coil voltage Sea coil data

Conact Rating: A:2A 26VDC/115VAC
B:3A 28VDC/115VAC
C:5A 26VDC/115VAC
D:7.5A 28VDC/115VAC

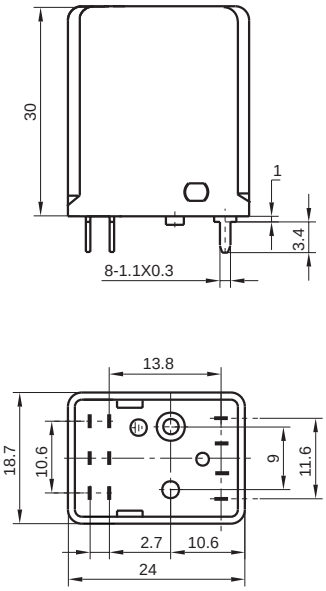
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Outline Dimensions (2C Unseled Type)

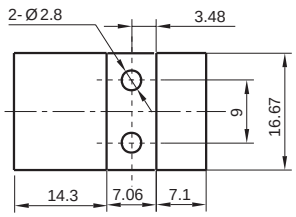
Plug-in Terminal TYPE



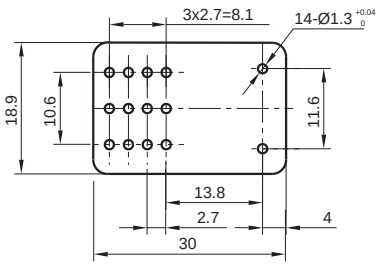
PCB Terminal TYPE



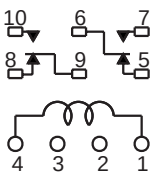
Suggested Panel Layout



PCB layout



Wiring Diagram

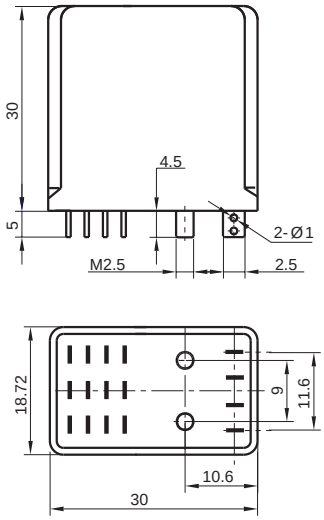


(Bottom view)

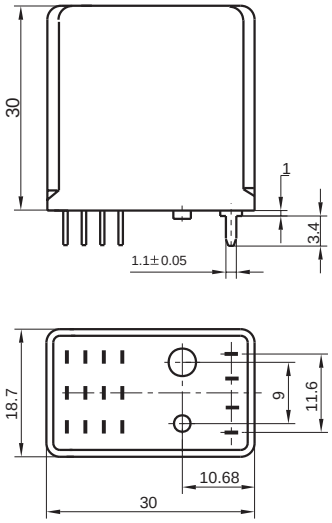
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Outline Dimensions (4C Unsealed TYPE)

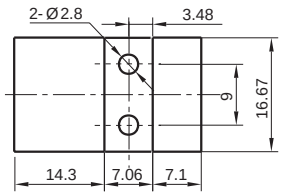
Soldering/Plug-in Terminal TYPE



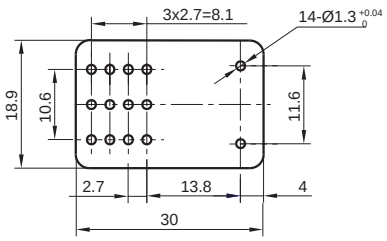
PCB Terminal TYPE



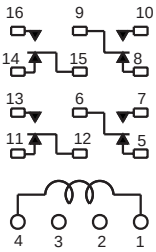
Suggested Panel Layout



PCB layout



Wiring Diagram(6C)

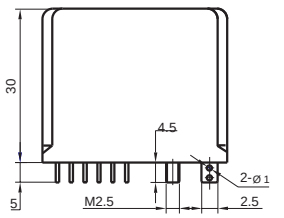


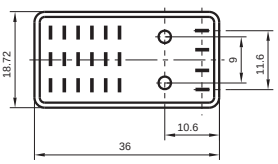
(Bottom view)

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

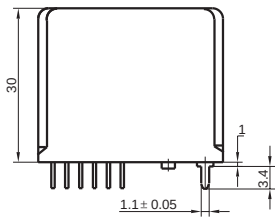
Outline Dimensions (6C Unsealed TYPE)

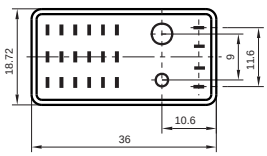
Soldering/Plug-in Terminal TYPE





PCB Terminal TYPE





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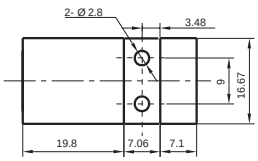
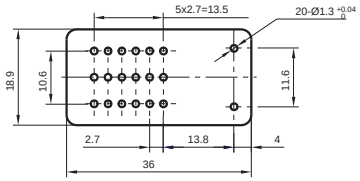
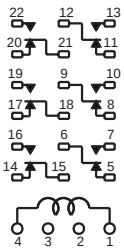


PCB layout



Wiring Diagram(6C)



(Bottom view)