

600H-600NH series

Toggle switches • high amperage



DISTINCTIVE FEATURES

- Robust mechanism
- High current/voltage rating
- Insulated or metal lever
- UL, CSA and NF-VDE (EN 61058-1) approved



ELECTRICAL SPECIFICATIONS

- Max. current/voltage ratings : see tables below
- Peak current : 30 A max. during 1/2 sine, 250 VAC
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1,000 MΩ min. at 500 VDC
- Dielectric strength :
2,000 Vrms 50 Hz min. between terminals
2,500 Vrms 50 Hz min. between terminals and frame
- Electrical life : 10,000 cycles at full load

| APPROVED RATINGS | | | | |
|------------------------|-------------------------------|----------------------------|----------|---------------------|
| Models | Functions | 600H - 600NH | | |
| | | UL | CSA | NF-VDE |
| | | UL 1054 | CSA 22-2 | EN 61058-1 |
| Single and double pole | ON - OFF (1) | 15 A 1/2 HP 125-250 VAC | | 10(4) A 400 VAC |
| | ON - ON (6) | | | |
| | Other (4-5-7-8-9) | 10 A 1/2 HP 125-250 VAC | | T 85/55 (600H) |
| Three pole | ON - OFF (1) & ON - ON (6) | 15 A 1/2 HP 125-250 VAC | | T 125/55 (600NH) |
| | Other (4-5-7-8-9) | 10 A 1/2 HP 125-250 VAC | | |

| FOR INFORMATION Max. current/voltage rating w. resistive load | | |
|--|--|-------------------------------|
| Functions | Ratings | Electrical life |
| ON - OFF ON - ON | 15 A 250 VAC 10 A 24 VDC 15 A 12 VDC | 10,000 cycles |
| ON OFF ON | 15 A 250 VAC 5 A 24 VDC | 6,000 cycles 10,000 cycles |
| Other | 15 A 125 VAC 12 A 250 VAC 5 A 24 VDC | 10,000 cycles |

The company reserves the right to change specifications without notice.



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GENERAL SPECIFICATIONS

- Torque : 1.50 Nm (1.10 Ft.lb) max. applied to nut
- Panel thickness : 4.5 mm (.177) max. between 2 nuts
- Operating temperature : -20 °C to +55 °C (-4 °F to +131 °F)



MATERIALS

- Case : polyester UL94-V0
- Actuator :
 - 600H : brass, nickel plated
 - 600NH : black polyamide
- Bushing : brass, nickel plated or zinc die-cast (zamak)
- Contacts : silver/nickel alloy

APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

AGENCY APPROVALS

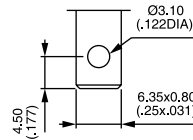


EN 61058-1 EN 61058-1

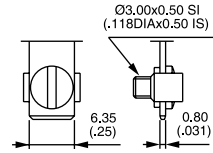
Availability : see chart on previous page.
Marking : approved models are standard marked.



TERMINALS



600H/2 & 600NH/2

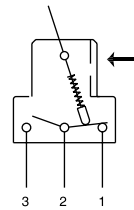


600H & 600NH

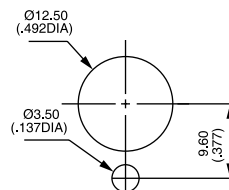
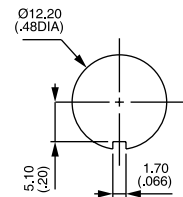
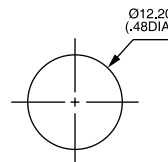


ELECTRICAL FUNCTIONS

→ KEYWAY



PANEL CUT-OUT



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BUILD YOUR PART NUMBER

BASIC PART NUMBER

| SERIES | NUMBER OF POLES | ELECTRICAL FUNCTIONS | ACTUATOR AND TERMINALS | MOMENTARY |
|--------|--|--|---|---|
| 6 | | | | |
| | 3 Single pole 4 Double pole 5 Three pole For 4 pole, see 660 series. | 1 ON - OFF 5 MOM - ON 6 ON - ON 7 MOM OFF MOM 8 ON OFF MOM 9 ON OFF ON 4 ON ON ON MOM Δ MOM ON MOM Δ | H Metal lever, screw terminals H/2 Metal lever, solder lug/quick-connect terminals * H/3 Metal lever, normalized quick-connect terminals NH Insulated lever, screw terminals NH/2 Insulated lever, solder lug/quick-connect terminals NH/3 Insulated lever, normalized quick-connect terminals * | -1R ON ON MOM -2R MOM ON MOM |

Δ Must not have blank in "momentary" box. * On request.

OPTIONS FOR 600H SERIES ONLY

| OPTIONS | LOCKING LEVERS | ACTUATOR OPTIONS |
|--|--|--|
| For models with metal lever only T Tropicalized case K Front panel sealing L Bushing 16 mm (.629) LUXE Chrome finish TKLUXE Front panel sealing + T and LUXE G Black finish GK Black finish + front panel sealing G-038 Black finish + luminous tip on lever | -1V 1 locked position -2V 2 locked positions -3V 3 locked positions | -4 30 mm (1.181) long actuator -5 40 mm (1.574) long actuator -6 Retro style actuator X2595 Ergonomic flat plastic actuator |



ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

- ⚠ **Notice** : please note that not all combinations of above numbers are available. Refer to following pages for further information.
- 🛡 **Switch guards** are available to prevent inadvertent lever operation. See "Switch Guards" section on website.
- 🌧 **Sealing boots** are available on 600H series to protect the switches against dust and water. See "Sealing Boots" section of website.
- 🔧 **Mounting accessories** : standard hardware supplied with all models :
 - 600H series : 1 hex nut U166 and 1 knurled nut U411
 - 600NH series : 1 hex nut U166 and 1 knurled nut U522

600H-600NH series

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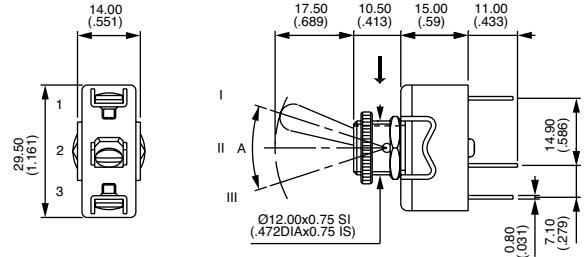
METAL LEVER - SINGLE POLE



| Solder lug | Screw | A | III 2-1 | II | I 2-3 |
|------------|-------|---------|------------|-----|----------|
| 631H/2 | 631H | 30° ON | - | OFF | |
| 635H/2 | 635H | 26° MOM | - | ON | |
| 636H/2 | 636H | 30° ON | - | ON | |
| 637H/2 | 637H | 30° MOM | OFF | MOM | |
| 638H/2 | 638H | 36° ON | OFF | MOM | |
| 639H/2 | 639H | 36° ON | OFF | ON | |

→ KEYWAY

A = Angle of throw



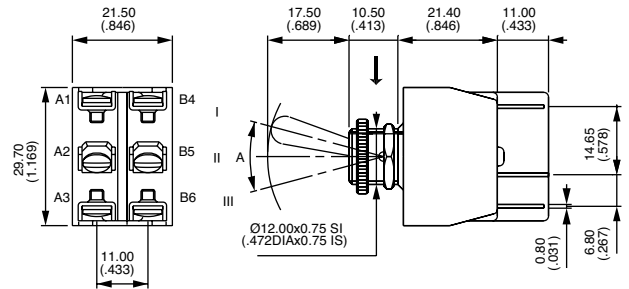
Angle of throw with K sealing option :
functions 1, 5, 6, 7 : 26° - functions 8, 9 : 32°

→ KEYWAY

METAL LEVER - DOUBLE POLE



| Solder lug | Screw | A | III 2-1 5-4 | II | I 2-3 5-6 |
|------------|----------|---------|-------------------|-----|-----------------|
| 641H/2 | 641H | 26° ON | - | OFF | |
| 644H/2 | 644H* | 33° ON | ON | ON | |
| 644H/2-1R | 644H-1R* | 33° ON | ON | MOM | |
| 644H/2-2R | 644H-2R* | 33° MOM | ON | MOM | |
| 645H/2 | 645H | 26° MOM | - | ON | |
| 646H/2 | 646H | 26° ON | - | ON | |
| 647H/2 | 647H | 26° MOM | OFF | MOM | |
| 648H/2 | 648H | 26° ON | OFF | MOM | |
| 649H/2 | 649H | 32° ON | OFF | ON | |



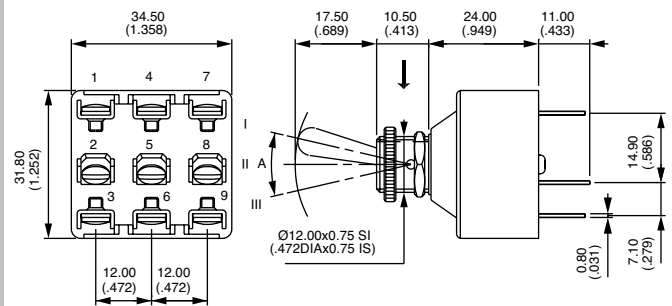
* Function 4 : SP in DP case - see "Technical information" on website

→ KEYWAY

METAL LEVER - THREE POLE



| Solder lug | Screw | A | III 2-1 5-4 8-7 | II | I 2-3 5-6 8-9 |
|------------|-------|---------|--------------------------|-----|------------------------|
| 651H/2 | 651H | 24° ON | - | OFF | |
| 655H/2 | 655H | 15° MOM | - | ON | |
| 656H/2 | 656H | 24° ON | - | ON | |
| 657H/2 | 657H | 24° MOM | OFF | MOM | |
| 658H/2 | 658H | 24° ON | OFF | MOM | |
| 659H/2 | 659H | 28° ON | OFF | ON | |

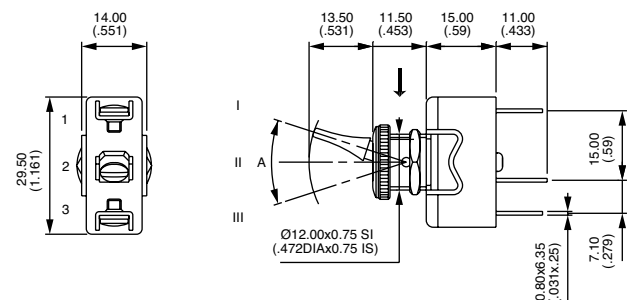


→ KEYWAY

INSULATED LEVER - SINGLE POLE



| Solder lug | Screw | A | III 2-1 | II | I 2-3 |
|------------|-------|---------|------------|-----|----------|
| 631NH/2 | 631NH | 28° ON | - | OFF | |
| 635NH/2 | 635NH | 24° MOM | - | ON | |
| 636NH/2 | 636NH | 28° ON | - | ON | |
| 637NH/2 | 637NH | 33° MOM | OFF | MOM | |
| 638NH/2 | 638NH | 33° ON | OFF | MOM | |
| 639NH/2 | 639NH | 33° ON | OFF | ON | |



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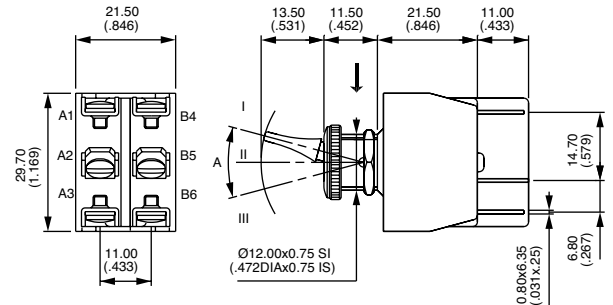
INSULATED LEVER - DOUBLE POLE



| Solder lug | Screw | A | | |
|------------|-----------|---------|-----|-----|
| 641NH/2 | 641NH | 26° ON | - | OFF |
| 644NH/2 | 644NH* | 30° ON | ON | ON |
| 644NH/2-1R | 644NH-1R* | 26° ON | ON | MOM |
| 644NH/2-2R | 644NH-2R* | 26° MOM | ON | MOM |
| 645NH/2 | 645NH | 26° MOM | - | ON |
| 646NH/2 | 646NH | 26° ON | - | ON |
| 647NH/2 | 647NH | 26° MOM | OFF | MOM |
| 648NH/2 | 648NH | 30° ON | OFF | MOM |
| 649NH/2 | 649NH | 30° ON | OFF | ON |

III 2-1
5-4
II
I 2-3
5-6

KEYWAY



* Function 4 : SP in DP case - see "Technical information" on website

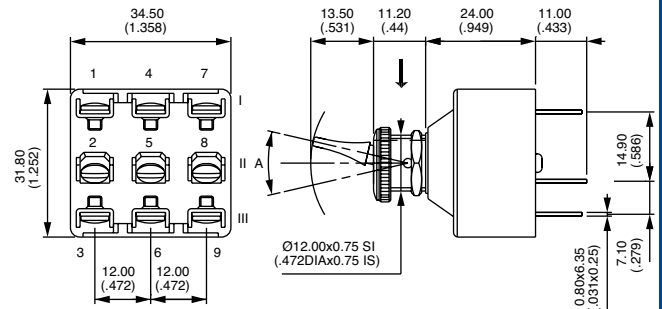
INSULATED LEVER - THREE POLE



| Solder lug | Screw | A | | |
|------------|-------|---------|-----|-----|
| 651NH/2 | 651NH | 24° ON | - | OFF |
| 655NH/2 | 655NH | 15° MOM | - | ON |
| 656NH/2 | 656NH | 24° ON | - | ON |
| 657NH/2 | 657NH | 24° MOM | OFF | MOM |
| 658NH/2 | 658NH | 24° ON | OFF | MOM |
| 659NH/2 | 659NH | 28° ON | OFF | ON |

III 2-1
5-4
8-7
II
I 2-3
5-6
8-9

KEYWAY



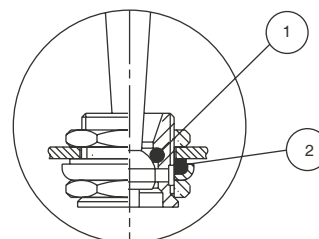
All models also available with normalized quick-connect terminals H/3 or NH/3.

OPTIONS

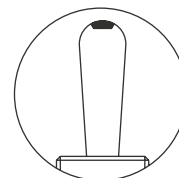


For 600H series only

- T** Tropicalized diallylphthalate case (-40 °C to +85 °C) (-40 °F to +185 °F)
- K** Front panel sealing by 1 O-ring and sealing washer. Protects the switch against water and dust. Panel seal withstands 1 bar pressure and remains sealed even when switch is operated
- L** Special threaded bushing, length 16 mm (.629)
- LUXE** Chrome plated lever and cap nut U117
- TK LUXE** Options T, K and LUXE.
- G** Black finish on bushing, lever and nuts. Includes tropicalization (option T) and locking ring U12.
- GK** Option G + front panel sealing by O-ring and sealing washer (as described in option K)
- G-038** Option G + fluorescent tip on lever. White fluorescent tip becomes luminous when submitted to ultra violet rays.



- ① O-ring
- ② Sealing washer

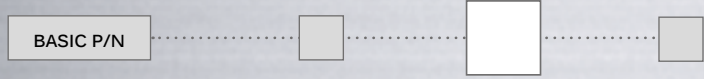


G-038

600H-600NH series

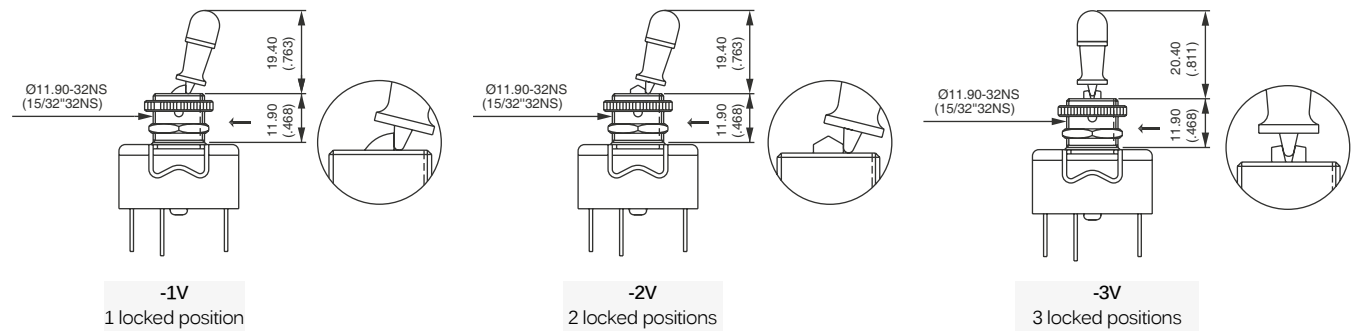
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LOCKING LEVERS

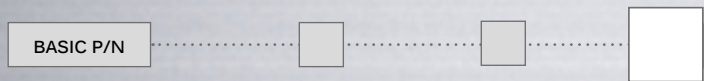


For 600H series only
 For 1 and 2 pole models.
 For 3-pole models, refer to 6000 series.

→ KEYWAY

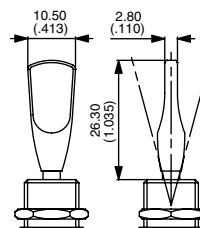
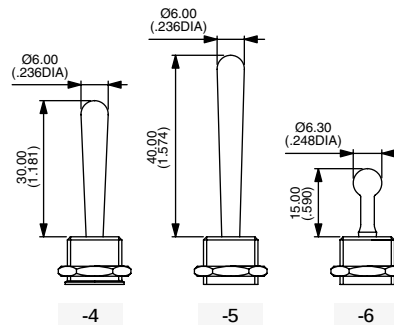


ACTUATOR OPTIONS



For 600H series only
 For 1 and 2 pole models.

- 4 30 mm (1.181) long actuator
- 5 40 mm (1.574) long actuator
- 6 Retro style actuator (gold plated or chrome plated : on request)
- X2595 Ergonomic flat plastic actuator



X2595