

RTA Series

1-4 Poles Coded Rotary Switches



Features/Benefits

- PCB or hand soldering versions
- Bushing mounting
- Multiple poles
- Decimal and hexadecimal codes
- Screwdriver slot or extended actuator
- RoHS Compliant

Typical Applications

- Appliances
- Electronic alarm systems
- Medical
- Building automation
- HVAC air conditioning

Electrical Data

| | Silver | Gold |
|---|-------------------|-------------------|
| SWITCHING MODE: | BBM | BBM |
| MAX. SWITCHING POWER | 5 VA | 0.5 VA |
| MAX. SWITCHING CURRENT: | 150 mA | 20 mA |
| MAX. CARRYING CURRENT: | 5 A | 1 A |
| NOMINAL VOLTAGE AT 50 Hz | 60 V | 25 V |
| CONTACT RESISTANCE: | < 150 mΩ | < 150 mΩ |
| DIELECTRIC STRENGTH AT 50 Hz BETWEEN CONTACTS AND GROUND TERMINALS: | 500 V r | 500 V r |
| INSULATION RESISTANCE BETWEEN CONTACTS OR CONTACTS AND FRAME (500 V ⇒): | 10 ⁹ Ω | 10 ⁹ Ω |
| NO. OF OPERATIONS: | 10,000 | 10,000 |
| BOUNCE: | < 5 ms | < 5 ms |

Mechanical Data

MAX. NO. OF BANKS: 1.
 OPERATING TORQUE: 5 Ncm±20%.
 END STOP TORQUE: < 60 Ncm.
 STOP: With/without or adjustable
 MOUNTING: By fixed index 9.5 mm (0.374) of center, for bushing mount only

Materials

BUSHING/HOUSING: PETP Thermoplastic
 STATIONARY CONTACTS & TERMINALS: Nickel Plated Brass with additional plating of Gold or Silver.
 ROTOR: Gold or Silver plated Brass or PCB.
 CODING PLATE: PA thermoplastic
 ACTUATOR: Polysulfon thermoplastic
 HARDWARE: Stop pin: Aluminum. Ball & Spring: Stainless steel. Washer: PA. Nut: Brass.

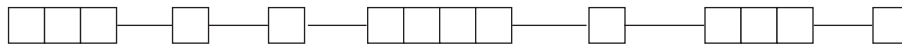
Environmental Data

OPERATING TEMPERATURE: -20°C to + 70°C -20°C to + 70°C
 STORAGE TEMPERATURE: -40°C to + 85°C -40°C to + 85°C

NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages K-9 thru K-12. For additional options not shown in catalog, consult Customer Service Center.



Designation

RTA

Termination

- P** With PC Thru-hole
- C** With Solder Lugs
- H** Horizontal with PC Thru-hole

Switch Function

- 1W12** SP, 30° Index, 12 pos. no stop
- 1W10** SP, 36° Index, 10 pos. no stop
- 1S02** SP, 30° /36° Index, 2 pos.
- 1S03** SP, 30° /36° Index, 3 pos.
- 1S04** SP, 30° /36° Index, 4 pos.
- 1S05** SP, 30° /36° Index, 5 pos.
- 1S06** SP, 30° /36° Index, 6 pos.
- 1S07** SP, 30° /36° Index, 7 pos.
- 1S08** SP, 30° /36° Index, 8 pos.
- 1S09** SP, 30° /36° Index, 9 pos.
- 1S10** SP, 30° /36° Index, 10 pos.
- 1S11** SP, 30° Index, 11 pos.
- 1S12** SP, 30° Index, 12 pos.
- 2S02** DP, 30° /36° Index, 2 pos.
- 2S03** DP, 30° /36° Index, 3 pos.
- 2S04** DP, 30° /36° Index, 4 pos.
- 2S05** DP, 30° /36° Index, 5 pos.
- 2S06** DP, 30° Index, 6 pos.
- 3S02** 3P, 30° /36° Index, 2 pos.

Indexing

- 2** 22.5 index (coded only)
- 3** 30° index (12 positions max.)
- 4** 36° index (10 positions max.)

- 3S03** 3P, 30° /36° Index, 3 pos.
- 4S02** 4P, 30° /36° Index, 2 pos.
- EW10** Direct + complement, 36° Index, no stop
- EW12** Direct + complement, 30° Index, no stop
- DW16** Direct, 22.5° Index, no stop
- ES__** Direct + complement, 30°/36° Index, with stop (specify stop position)
- DS__** Direct, 22.5° Index, with stop (specify stop position)

Mounting Style

- W** Without bushing
- R** 3/8-32 Threaded Bushing
- M** M10x.75 Metric Threaded Bushing
- A** 3/8-32 Threaded Bushing with Offset Bracket
- B** M10x.75 Metric Threaded Bushing with Offset Bracket

Contact Material

- S** Silver plated, matte-tin terminal
- P** Gold plated, matte-tin terminal

Actuator (max.)

- 25N** .984 (25,0) with screwdriver slot
- 50N** 1.97 (50,0) with screwdriver slot
- FLS** Flush shaft with screwdriver slot and position indicator
- 25F** .984 (25,0) Shaft with flat
- 06F** .236 (6,0) Shaft with flat

- C** 3/8-32 Threaded Bushing with Straight Bracket
- D** M10x.75 Metric Threaded Bushing with Straight Bracket

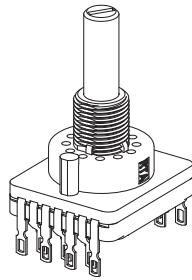


Dimensions are shown: Inch (mm)
 Specifications and dimensions subject to change

RTA Series 1-4 Poles Coded Rotary Switches

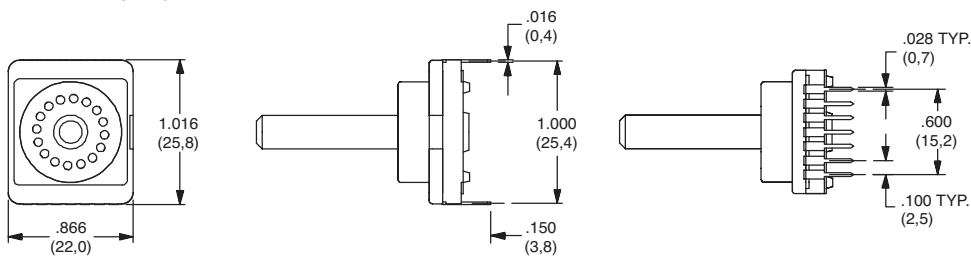
DESIGNATION

RTA

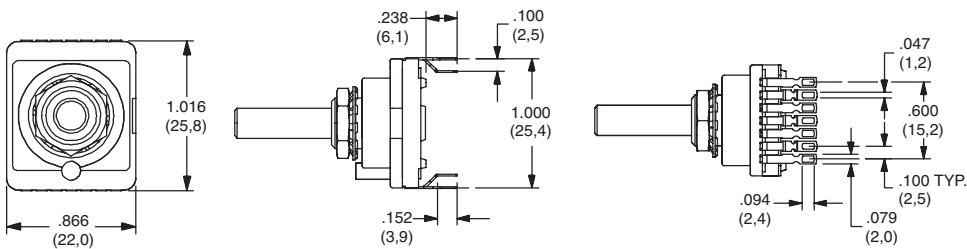


TERMINATION

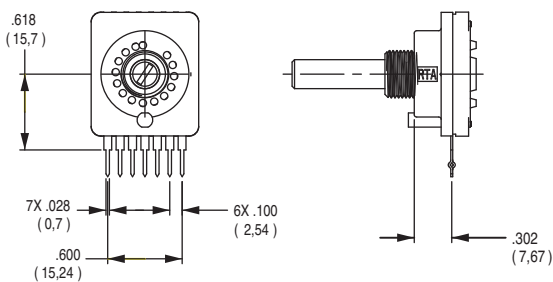
P WITH PC PINS



C WITH SOLDER LUGS



H Horizontal with PC Thru-hole



Note: "H" termination only available with the following options:
 1. With A or B mounting styles
 2. 36° degree indexing
 3. Up to 5 positions max

INDEXING

- 2** 22.5 index, 16 positions max.
- 3** 30 index, 12 positions max.
- 4** 36 index, 10 positions max.

Both commons must be connected by user to ground.



Dimensions are shown: mm
 Specifications and dimensions subject to change



K

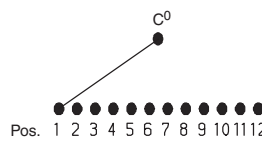
Rotary

RTA Series 1-4 Poles Coded Rotary Switches

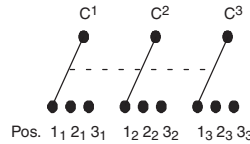
SWITCH FUNCTION

| NO. POLES | MODEL NO. | SWITCH FUNCTION | INDEX |
|-----------|--------------|----------------------|---------|
| SP | 1W12 | 12 Positions No Stop | 30° |
| | 1W10 | 10 Positions No Stop | 36° |
| | 1S02 | 2 Positions | 30°/36° |
| | 1S03 | 3 Positions | 30°/36° |
| | 1S05 | 5 Positions | 30°/36° |
| | 1S06 | 6 Positions | 30°/36° |
| | 1S08 | 8 Positions | 30°/36° |
| | 1S09 | 9 Positions | 30°/36° |
| | 1S10 | 10 Positions | 30°/36° |
| | 1S11 | 11 Positions | 30° |
| 1S12 | 12 Positions | 30° | |

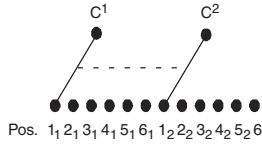
SP MODELS SCHEMATIC



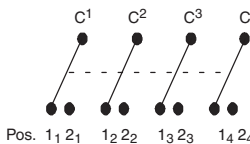
3P MODELS SCHEMATIC



DP MODELS SCHEMATIC



4P MODELS SCHEMATIC



| NO. POLES | MODEL NO. | SWITCH FUNCTION | INDEX |
|-----------|-----------|---------------------|---------|
| DP | 2W05 | 5 Positions No Stop | 30°/36° |
| | 2W06 | 6 Positions No Stop | 30° |
| | 2S02 | 2 Positions | 30°/36° |
| | 2S03 | 3 Positions | 30°/36° |
| | 2S04 | 4 Positions | 30°/36° |
| | 2S05 | 5 Positions | 30°/36° |
| 3P | 3S02 | 2 Positions | 30°/36° |
| | 3S03 | 3 Positions | 30°/36° |
| 4P | 4S02 | 2 Positions | 30°/36° |

| MODEL NO. | SWITCH FUNCTION | INDEX |
|-----------|--|-----------|
| EW10 | Direct + complement, No stop | 36° |
| EW12 | Direct + complement, No stop | 30° |
| DW16 | Direct, No stop | 22.5° |
| ES__ | Direct + complement, with stop (specify stop position) | 30° & 36° |
| DS__ | Direct, with stop (specify stop position) | 22.5° |

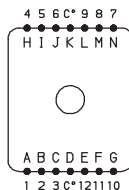
| 22.5° | 30° | 36° | | Pos. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
|-------|-----|-----|---|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|---|
| E,J | M,N | L,N | C | | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| F,I | H | D | 1 | | | • | | • | | • | | • | | • | | • | | • | | • | |
| D,K | D | B | 2 | | | | • | • | | | • | • | | | • | • | | | • | • | |
| A,N | A | I | 4 | | | | | | • | • | • | • | | | | | • | • | • | • | |
| B | J | J | 8 | | | | | | | | | | • | • | • | • | • | • | • | • | |
| - | C | K | 1 | | • | | • | | | • | | • | | • | | • | | • | | • | |
| - | K | H | 2 | | • | • | | | • | • | | | | • | • | | • | • | | | |
| - | B | A | 4 | | • | • | • | • | | | | | | • | • | • | | | | | |
| - | I | C | 8 | | • | • | • | • | • | • | • | • | | | | | | | | | |

Indexing Option Code 2, 22.5 INDEXING ANGLE PCB LAYOUT

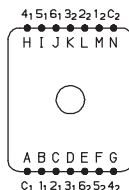


BCD ONLY

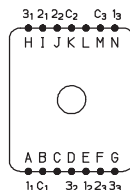
Indexing Option Code 3, 30 INDEXING ANGLE PCB LAYOUT



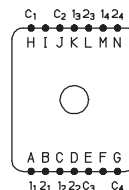
1 POLE



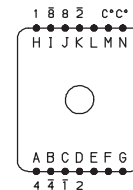
2 POLES



3 POLES

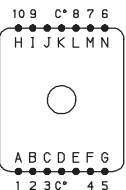


4 POLES

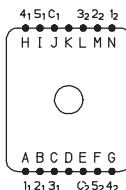


BCD + COMPLEMENTS

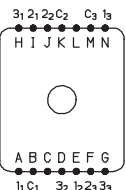
Indexing Option Code 4, 36 INDEXING ANGLE PCB LAYOUT



1 POLE



2 POLES



3 POLES



4 POLES



BCD + COMPLEMENTS

NOTE: Layout view from component side.

Common terminals that are in locations A-G are not connected to common terminals that are in locations H-N. For 7-12 position output customer must tie these commons together.



Third Angle Projection

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change



RTA Series 1-4 Poles Coded Rotary Switches

MOUNTING STYLE

W WITHOUT BUSHING



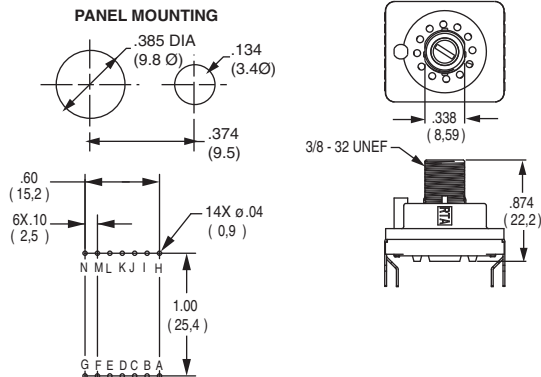
Note: W mounting style not available with H termination.

M M10 x .75 METRIC THREADED BUSHING



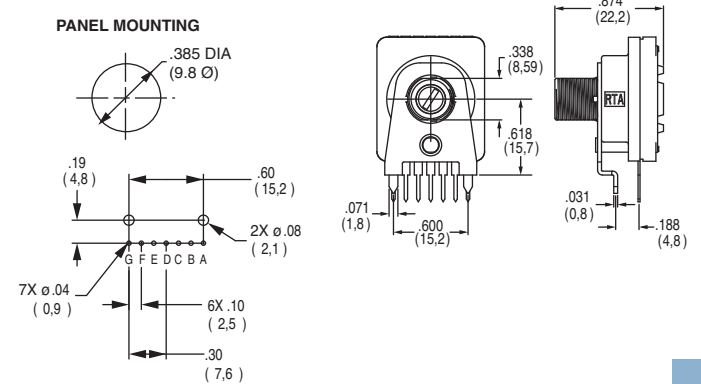
Note: M mounting style not available with H termination.

R 3/8-32 THREADED BUSHING



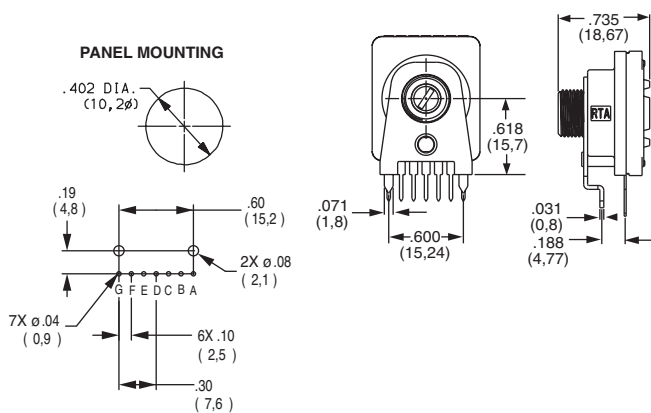
Note: R mounting style not available with H termination.

A 3/8-32 THREADED BUSHING WITH BRACKET



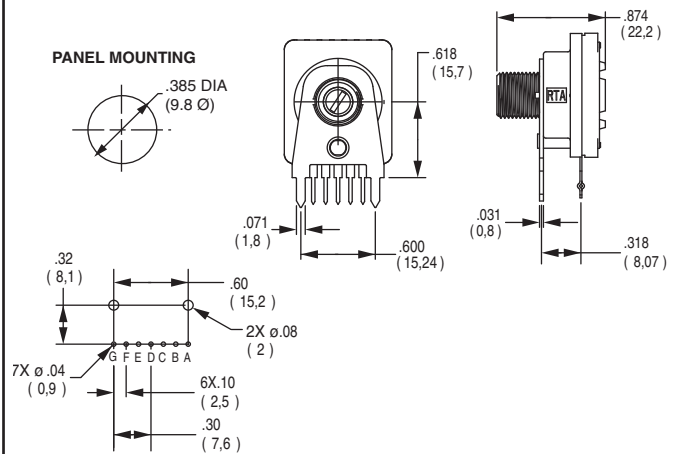
Note: A mounting style only available with H termination.

B M10 x .75 METRIC THREADED BUSHING WITH BRACKET

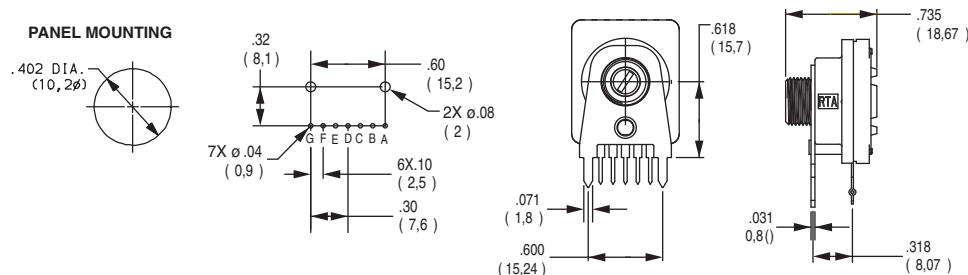


Note: B mounting style only available with H termination.

C 3/8-32 THREADED BUSHING WITH STRAIGHT BRACKET



D M10 x .75 METRIC THREADED BUSHING WITH STRAIGHT BRACKET



Third Angle Projection
Dimensions are shown: mm
Specifications and dimensions subject to change



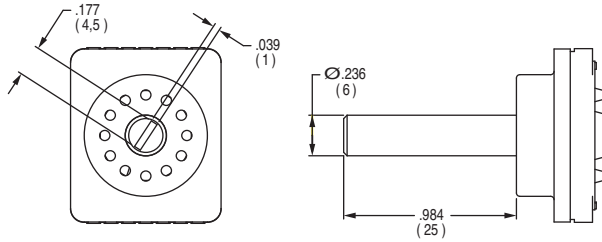
K

Rotary

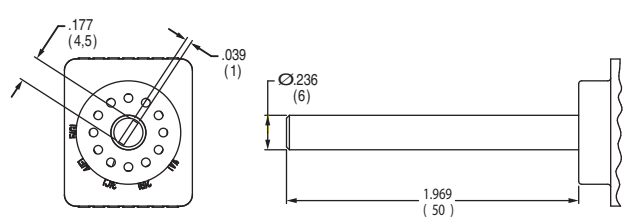
RTA Series 1-4 Poles Coded Rotary Switches

ACTUATOR

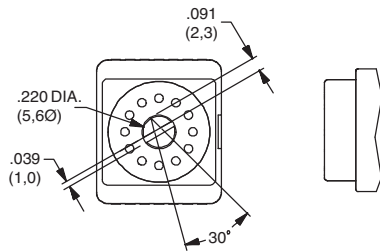
25N .984 (25,0) WITH SCREWDRIVER SLOT



50N 1.97 (50,0) WITH SCREWDRIVER SLOT

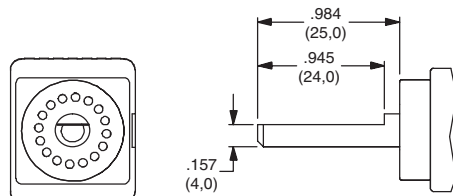


FLS FLUSH SHAFT WITH SCREWDRIVER SLOT AND POSITION INDICATOR



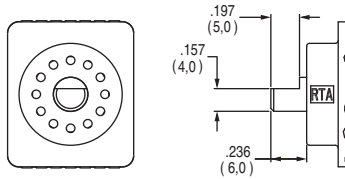
Note: only available with "W" Mounting Style

25F .984 (25,0) SHAFT WITH FLAT



Note: only available with "W" Mounting Style

06F .236 (6,0) SHAFT WITH FLAT



Note: only available with "W" Mounting Style

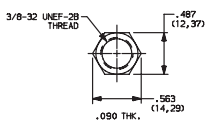
CONTACT MATERIAL

| OPTION CODE | CONTACT AND TERMINAL MATERIAL | RATING | |
|-------------|-------------------------------|--------------------------------|--|
| S | SILVER | LOW LEVEL/DRY CIRCUIT | SWITCH: 150 mA MAXIMUM, 60 V NOMINAL. POWER: 5 VA MAXIMUM. CARRY-5 AMPS MAXIMUM. |
| P | GOLD | LOW LEVEL/DRY CIRCUIT OR POWER | SWITCH: 20 mA MAXIMUM, 25 V NOMINAL. POWER: 0.5 VA MAXIMUM. CARRY: 1 AMP MAXIMUM. |

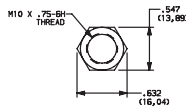
* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.

AVAILABLE HARDWARE

Mounting Nuts



PART NO.
472706201
Standard



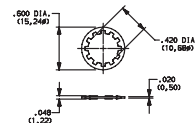
PART NO.
495100201
Metric

Stop pins



PART NO.
Y200300200P

Lockwasher



PART NO.
472800202

NOTE: Additional nuts and lockwashers available separately, see section "Technical Data and Additional Hardware".



Third Angle
Projection

C&K

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change



K

Rotary

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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