

Operator Interface Switches and Indicators

AML Series

005439

Issue 2

Datasheet



DESCRIPTION

Honeywell's AML (Advanced Manual Line) Series of commercial grade operator interface switches offers a variety of pushbutton switches, key lock switches, paddle switches, rocker switches, and indicators. Pushbutton switches are offered as momentary action or alternate action (push-on, push-off). The AML Series switches are available with contacts for controlling logic level or power-duty electrical loads. Up to four poles are available on select AML series for control or signaling applications. When lighted switches are required, incandescent, LED, or neon lamps are available to satisfy the supply voltage requirements for the application. A wide variety of pushbutton lens, paddle switch covers, and rocker switch covers are available for lighted or unlighted applications and with or without legends. The switches and indicators snap into the panel from the front for ease of installation and require less than 44,45 mm [1.75 in] panel depth including termination.

Honeywell AML switches are UL and CSA certified as noted on page 3 of the specifications.

DIFFERENTIATION

- A 4PDT contact option available for most AML switches
- Lamp package options for up to 250 Vac
- Key selector switches

VALUE TO CUSTOMERS

- Well suited for power-duty and logic-level loads
- Rectangular or square front-of-panel pushbutton design
- Standard rectangular design for pushbuttons, paddle, or rocker switches

FEATURES

- Pushbuttons, paddles, rockers, key-actuated, and indicators within AML Series for coordinated panel appearance
- Less than 1.75 inch panel depth
- Pushbuttons, paddles, and rockers furnished lighted or unlighted
- Lighted switches furnished with choice of incandescent, LED, or neon lamps dependent upon supply voltage
- Pushbuttons available with momentary or alternate action (push-on and push-off)
- Paddle, rocker, and key switches with two or three positions and maintained or momentary action
- One-, two-, or four-poles with double throw available for most switches
- Fine silver contacts for switching electrical loads, optional gold contacts for logic level applications
- AML20 Series standard-duty electrical rating or AML30 Series power-duty electrical rating (reference page 4)
- AML40 Series indicators with incandescent or LED displays
- Optional fabricated metal frames (AML61 Series) for strip mounting multiple AML switches
- Wide variety of accessories, including switch guards and panel seals
- UL and CSA certified

POTENTIAL APPLICATIONS

- Agriculture
- Food and beverage
- Medical equipment
- Industrial equipment
- Process controls
- Oil and gas
- Military
- Aerospace
- Transportation

PORTFOLIO

The AML Series of pushbutton switches are a portion of Honeywell's breadth of operator interface controls. Other operator interface controls are rocker switches, an extensive line of toggle switches and specialty operator controls.

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Table 1. AML Series Specifications

Characteristic	Parameter				
Product type	MICRO SWITCH AML Series (Advanced Manual Line) pushbutton switches and indicators				
Certifications	AML20 Series switch	AML30 Series switch	AML41 Series indicator	AML42 Series indicator	AML45 Series indicator
	E12252, UL1054	E12252, UL1054	E58932 UL496	–	–
	File 4442 CSA22.2 #55	File 4442 CSA22.2 #55	File 4442 CSA22.2 #43 & 55	File 4442 CSA22.2 #43 & 55	File 4442 CSA22.2 #43 & 55
Reference standards	UL 496, UL 1054, and CSA 22.2, #43 & 55				
Housing material	Glass reinforced PBT polyester				
Button material	Polycarbonate				
Panel thickness	1,5 mm to 4,75 mm [0.060 in to 0.187 in]				
Panel depth required	Less than 44,45mm (1.75 in), including termination				
Panel cutout	AML20 Series switch	AML30 Series switch	AML41 Series indicator	AML42 Series indicator	AML45 Series indicator
Square housing	19,0 x 19,0 mm [0.75 x 0.75 in]	–	19,0 x 19,0 mm [0.75 x 0.75 in]	19,0 x 19,0 mm [0.75 x 0.75 in]	–
Rectangular housing	19,0 x 29,0 mm [0.75 x 1.14 in]	19,0 x 29,0 mm [0.75 x 1.14 in]	19,0 x 29,0 mm [0.75 x 1.14 in]	6,35 x 19,0 mm [0.25 x 0.75 in]	8,9 x 29,0 mm [1.14 x 0.35 in]
Termination AML20 and AML40 Series	2,79 x 0, 52 mm [0.110 x 0.020 in] quick connect or solder terminals Optional, 0,64 x 0,64 mm [0.025 x 0.025 in] printed circuit board terminals				
Termination AML30 Series	4,75 x 0,52 mm [0.187 x 0.020 in] quick connect or solder terminals				
Contact options	AML20 Series switch	AML30 Series switch	AML41 Series indicator	AML42 Series indicator	AML45 Series indicator
Pushbutton (momentary)	Form C; 1PDT, 2PDT, 4PDT	Form X, 2PST normally open double break	–	–	–
Pushbutton (alternate action)	Form C; 1PDT, 2PDT, 4PDT	Form X, 2PST normally open double break	–	–	–
Paddles	Form C; 1PDT, 2PDT, 4PDT	Form A, 1PST, 2PST	–	–	–
Rockers	Form C; 1PDT, 2PDT, 4PDT	Form A, 1PST, 2PST,	–	–	–
Key operated selectors	Form C, 1PDT, 2PDT	–	–	–	–
Contact material	Silver alloy, optional gold contacts, or optional gold-plated silver contacts				
Lamp options	Incandescent T 1¾ wedge base, Integral LED or neon, LED T 1¾ wedge base				
Operating temperature	0 °C to 55 °C [32 °F to 131 °F]				
Electrical/mechanical life	AML20 Series switch	AML30 Series switch	AML41 Series indicator	AML42 Series indicator	AML45 Series indicator
Pushbutton (momentary)	6,000 cycles	6,000 cycles	–	–	–
Pushbutton (alternate action)	6,000 cycles	6,000 cycles	–	–	–
Paddles	6,000 cycles	6,000 cycles	–	–	–
Rockers	6,000 cycles	6,000 cycles	–	–	–
Key operated selectors	6,000 cycles	–	–	–	–

Table 2. AML20 Series Electrical Ratings (Standard)

Contact Material	Voltage	Current (amps)	Load type
Silver or gold-plated silver	24 Vdc	2	Resistive
	125 Vac	3	Inductive, 0.75 PF
	250 Vac	2	Inductive, 0.75 PF
Gold	125 Vac/Vdc	0.1	Resistive

Table 3. AML30 Series Electrical Ratings (Power Duty)

Switch type (silver contacts)	Voltage	Current (amps)	Load type
Pushbuttons	125/250 Vac	10	Inductive, 0.6 PF
Paddles	125/250 Vac	15	Inductive, 0.6 PF
Rockers	125/250 Vac	15	Inductive, 0.6 PF