

APEM
an IDEC company

A SERIES

Miniature unibody switches



NEW RANGE

ERMEC

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- Suitable for a wide variety of office and factory applications.
- Degree of protection: IP40 and IP65 (IEC 60529)
- UL recognized, CSA certified, EN compliant and CCC approved.

Environmental specifications

Operating Temperature	-25 to +55°C (no freezing)
Storage Temperature	-30 to +80°C (no freezing)
Operating Humidity	45 to 85% RH (no condensation)
Vibration Resistance	Operating extremes: 5 to 55 Hz, amplitude 0.75 mm
Shock Resistance	Damage limits: 500 m/s ² (50G) Operating extremes: 200 m/s ² (20G)
Degree of Protection	IP40, IP65 (IEC 60529)

General specifications

Mechanical Durability (minimum operations)	Momentary: 1,000,000 operations (A6 series) 200.000 (A2, A1, A8 series) Maintained: 100,000 operations Selector Switch: 250,000 operations Key Selector Switch: 250,000 operations
Terminal Style	Solder / tab terminals

Electrical specifications

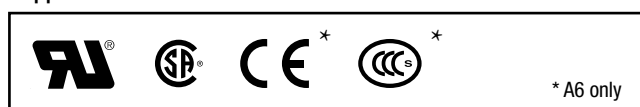
Contact Resistance	50 mΩ maximum (initial value)
Insulation Resistance	100 MΩ minimum (500V DC megger)
Dielectric Strength	Switch Unit Between live and dead metal parts: 2,000V AC, 1 minute Between terminals of different poles: 2,000V AC, 1 minute Between terminals of the same pole: 1,000V AC, 1 minute Between contact and lamp terminals: 1,500V AC, 1 minute
	Illumination Unit Between live part and ground: 2,000V AC, 1 minute
Electrical Durability (minimum operations)	Other than Maintained: 100,000 operations Maintained: 50,000 operations (Switching frequency 1200 operations/h)

Contact Ratings (Contact Block)

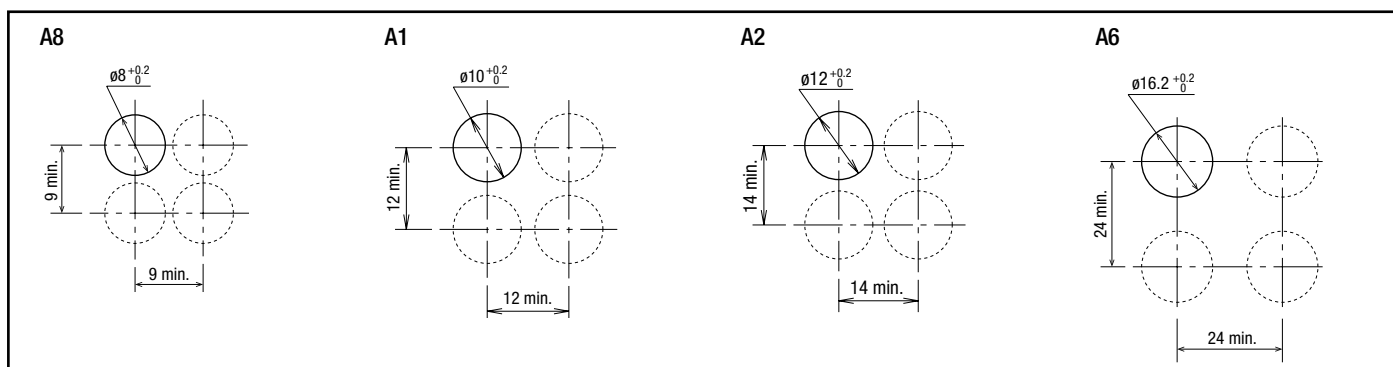
Rated Insulation Voltage	250V			
Rated Thermal Current	3A			
Operating Voltage (AC/DC)	12V	24V	110V	220V
AC 50/60 Hz	Resistive Load	—	—	1.0A 0.5A
	Inductive Load	—	—	0.7A 0.5A
DC	Resistive Load	1.0A	1.0A	0.2A —
	Inductive Load	0.7A	0.7A	0.1A —
Contact Material	Gold plated silver contact (A6 series) Silver contact (A2, A1, A8 series)			

- Minimum applicable load: 5V AC/DC, 1 mA
(applicable range may vary with operating conditions and load types)

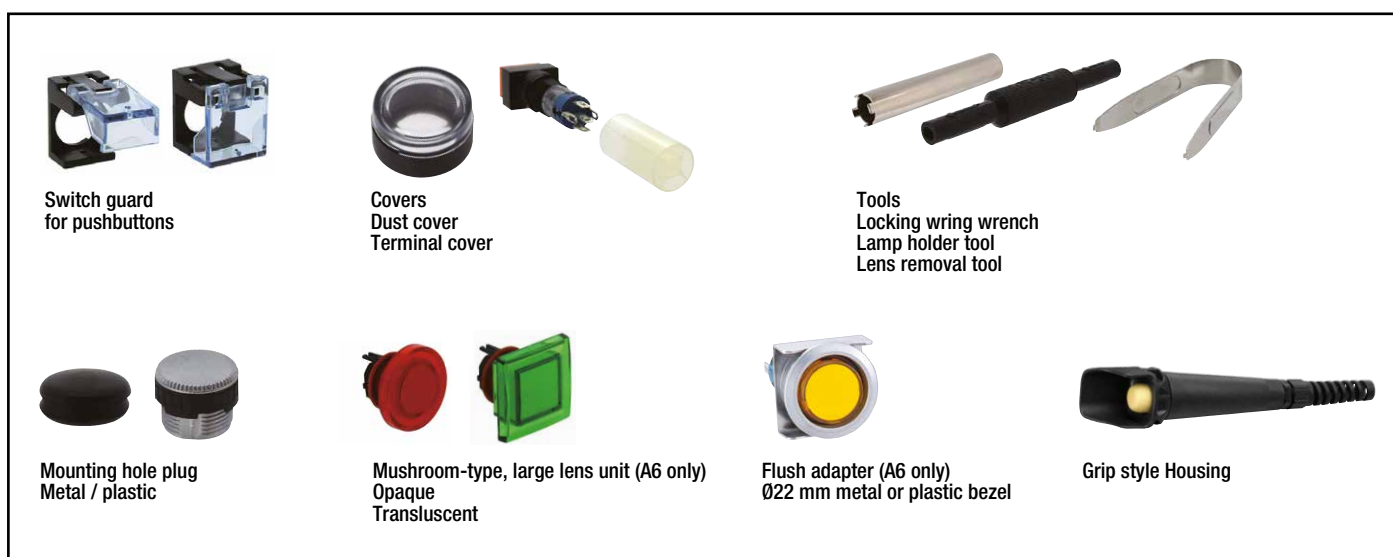
Approvals



Mounting Hole Layout Round/Square Units



Main accessories



PUSHBUTTON

A									
SERIES	FUNCTION	OPERATOR SHAPE			CONTACT CONFIGURATIONS		SEALING LEVEL		
	L – Illuminated pushbutton B – Pushbutton	M – Round Q – Square H – Rectangular G – 3-sided barrier rectangular			Blank – No contact (Pilot light) 1 – SPDT 2 – DPDT		Blank – IP40 P – IP65 (only for Ø16 and 12 mm bushing)		
		BUSHING Ø	OPERATOR FUNCTION		RATED VOLTAGE OF ILLUMINATION*		COLOUR CODE**		
		6 – Ø16 mm 2 – Ø12 mm 1 – Ø10 mm 8 – Ø8 mm	A – Latching/Alternating M – Momentary		Blank – Non-illuminated or add a resistor (A2, A1, A8) 1 – 5 V DC 3 – 12 V AC/DC 4 – 24 V AC/DC		A – Amber B – Black (Non-lit only) JW – Pure white (lit only) G – Green R – Red S – Blue W – White Y – Yellow		

* Only for A6. For A2, A1 and A8, add a current-limiting resistor (value given in the datasheet)

** Option : W (ill only) = white lens type (when light is off), followed by the color of the LED A (amber), G (green), R (red), S (blue), i.e. AL6H-M24WA
L (non-ill only) = Lens to be used with marking plates, followed by the color of the lens (for black : clear lens + a black marking plate), i.e. AB6H-M2LB

PILOT LIGHTS

A									
SERIES	FUNCTION	OPERATOR SHAPE			RATED VOLTAGE OF ILLUMINATION*		COLOUR CODE**		
	L – Illuminated	M – Round Q – Square H – Rectangular G – 3-sided barrier rectangular			Blank – Non-illuminated or add a resistor (A2, A1, A8) 1 – 5 V DC 3 – 12 V AC/DC 4 – 24 V AC/DC		A – Amber JW – Pure white G – Green R – Red S – Blue W – White Y – Yellow		
		BUSHING Ø	OPERATOR FUNCTION		SEALING LEVEL				
		6 – Ø16 mm 2 – Ø12 mm 1 – Ø10 mm 8 – Ø8 mm	P – Pilot light		Blank – IP40 P – IP65 (only for Ø16 and 12 mm bushing)				

* Only for A6. For A2, A1 and A8, add a current-limiting resistor (value given in the datasheet)

** Option : W = white lens type (when light is off), followed by the color of the LED A (amber), G (green), R (red), S (blue), i.e. AL6H-M24WA

SELECTORS

A									
SERIES	FUNCTION	OPERATOR SHAPE		SELECTOR TYPE	KEY TYPE	SEALING LEVEL		KEY NUMBER**	
	S – Selectors	M – Round Q – Square H – Rectangular		Y – Selector K – Key selector	T – Disc tumbler key S – Wave Key	Blank – IP40 P – IP65 (only for Ø16 and 12 mm bushing)		Blank – Standard 1H to 2H : Reversible key 3H to 6H : Non-reversible key	
BUSHING Ø		NO. OF POSITIONS			CONTACT CONFIGURATIONS		KEY REMOVABLE		
6 – Ø16 mm		2 – 2 positions - maintained 21 – 2 positions – spring return from right 3 – 3 positions - maintained 31 – 3 positions – spring return from right 32 – 3 positions – spring return from left 33 – 3 positions – spring return 2-way			1 – SPDT 2 – DPDT		A – All positions B – 2 pos : left 3 pos. left/center C – 2 pos. : right 3 pos. : right/center D* – Center E* – Right end left G* – Left only H* – Right only		

*Only for 3-position key selector
** Only for key selectors with wave keys

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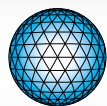


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APEM
an IDEC company



ABOUT IDEC



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70 YEARS OLD



100 000+
REFERENCES

IDEC main product families

-  **LED Machine lighting**
-  **Automation & Sensing**
-  **Safety**
-  **Switch & Control**

IDEC products are essential

Best-in-class products

Field-proven and reliable products

Environment-friendly

Long-lasting and efficient products

Enhanced safety

Original solutions

Standardisation committee

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