

IHP (Plastic) and IHM (Metal) Series Ignition Switches

Description

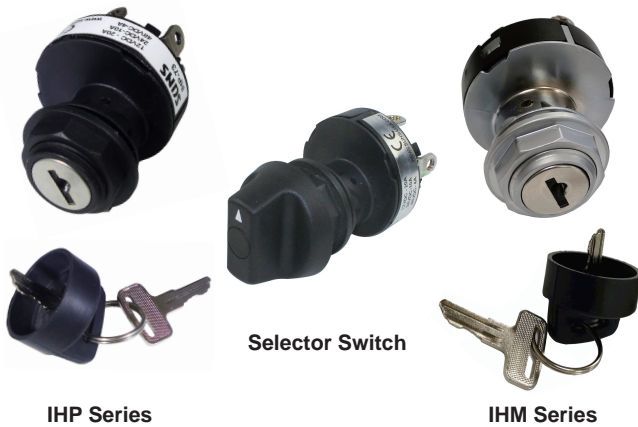
SUNS ignition switches are designed start and stop small internal combustion engines and electric vehicles and to switch accessories on and off by controlling the make and break of up to seven connections. Switch actuation is by a non-coded key.

Features

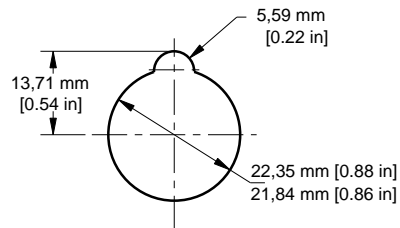
- Nut mount installation
- Zinc die-cast or plastic housing
- Available in 2, 3 or 4 positions
- Variety of standard circuit configuration available
- Anti-restart feature available for selected models
- Add -M for metal nuts for IHP series

Specifications

Rated Current/Voltage	Deutsch 6 type: 10A/12VDC, 5A/24VDC, 3A/36VDC, 2A/48VDC, 1A/64VDC All other types: 20A/12VDC, 10A/24VDC, 4A/48VDC, 1A/64VDC
Key Insertion Force	18 N (4 Lbs)
Operational Key Turn Torque	1.69 N-m (15 IN-Lbs)
Maximum Key Turn Torque	4.5 N-m (40 IN-Lbs)
Housing Materials	Front: Fiber reinforced Nylon, Rear: Polypropylene
Service Life	25,000 (operations) @ Nominal Electric Load
Installation Temperature	13~+38°C (55~100°F)
Operating Temperature	-40~+85°C (-40 ~185°F)
Degree of Protection	IP67(Except Terminals)
Salt Fog	ASTM B117, 96 Hours
Chemical Resistance	ASTM Ref C Fuel, Diesel Fuel, Oil, Antifreeze, Paint, Latex, Gasoline, Gas with 10%ethanol, WD-40, Battery Acid Ammoniated Glass Cleaner, Kerosene, Go Jo, Fertilizer
Min. Steady Current/Voltage	15mA/12VDC

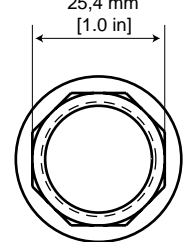


Mounting Hole Cut-Out



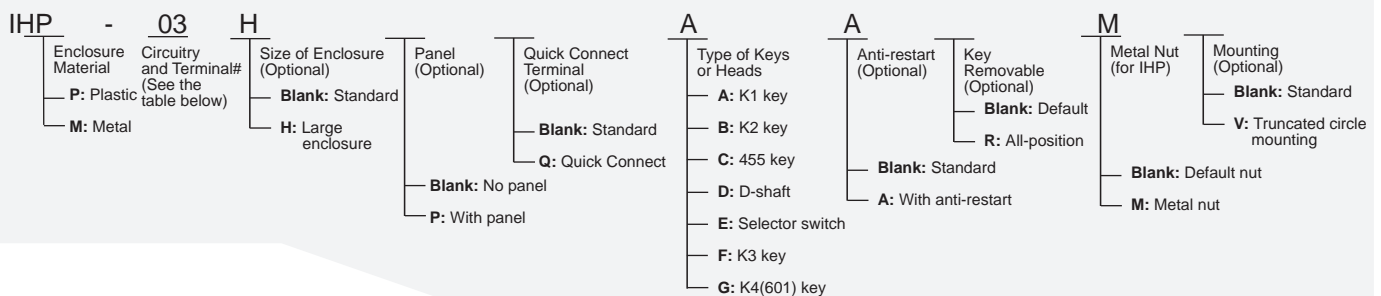
Recommended Mounting Hole
Recommended mounting panel thickness:
3,81 mm [0.15 in] min.
6,35 mm [0.25 in] max.

Mounting Nut



Torque to 0.576 Kg-m
[50 in-lb] max.

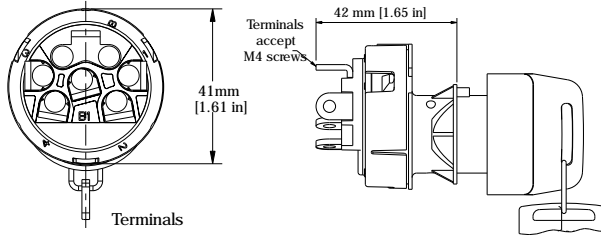
Selection Guide:



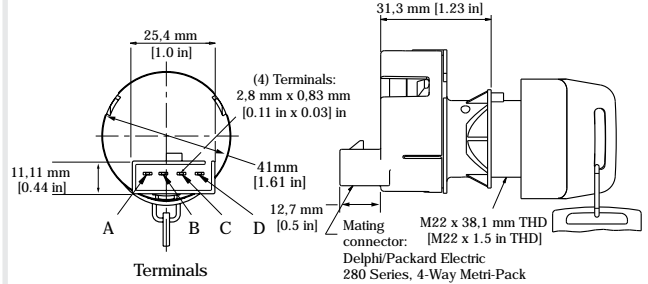
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Body Dimensions

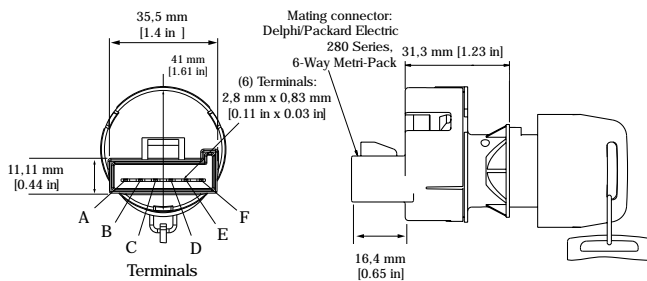
Dimension #1 (Screw Terminals)



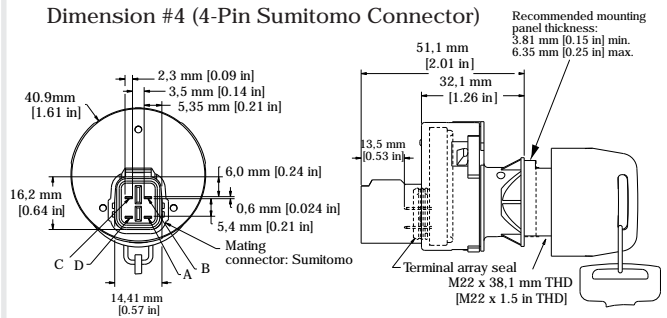
Dimension #2 (4-Pin Delphi Connector)



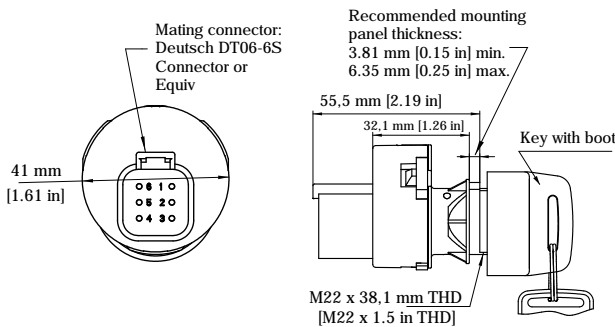
Dimension #3 (6-Pin Delphi Connector)



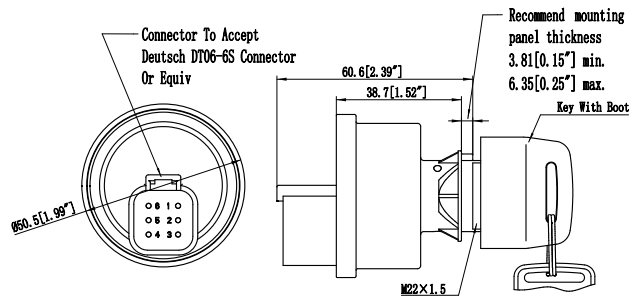
Dimension #4 (4-Pin Sumitomo Connector)



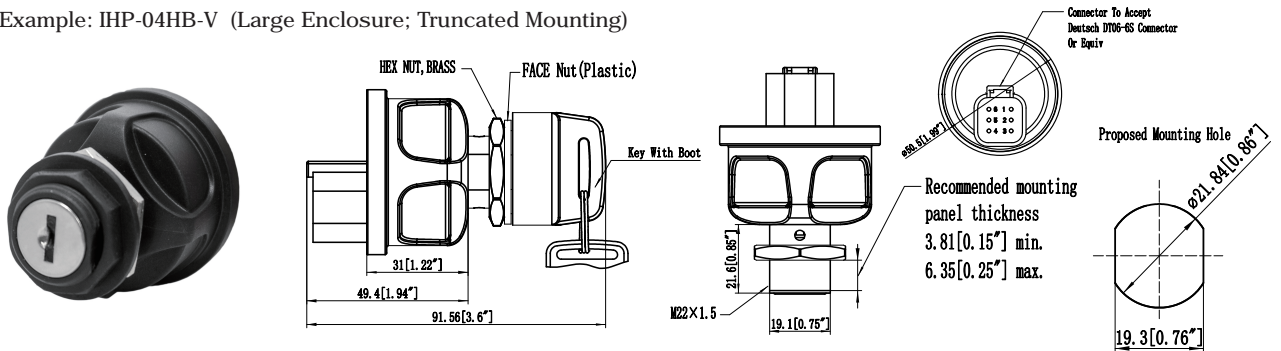
Dimension #5 (6-Pin Deutsch Connector)



Dimension #6 (6-Pin Deutsch Connector)



Example: IHP-04HB-V (Large Enclosure; Truncated Mounting)

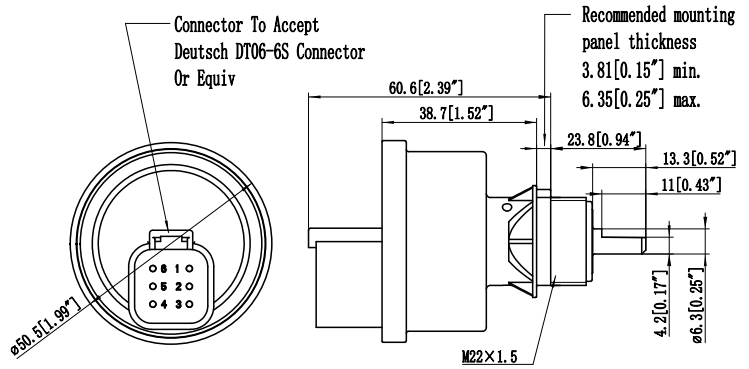


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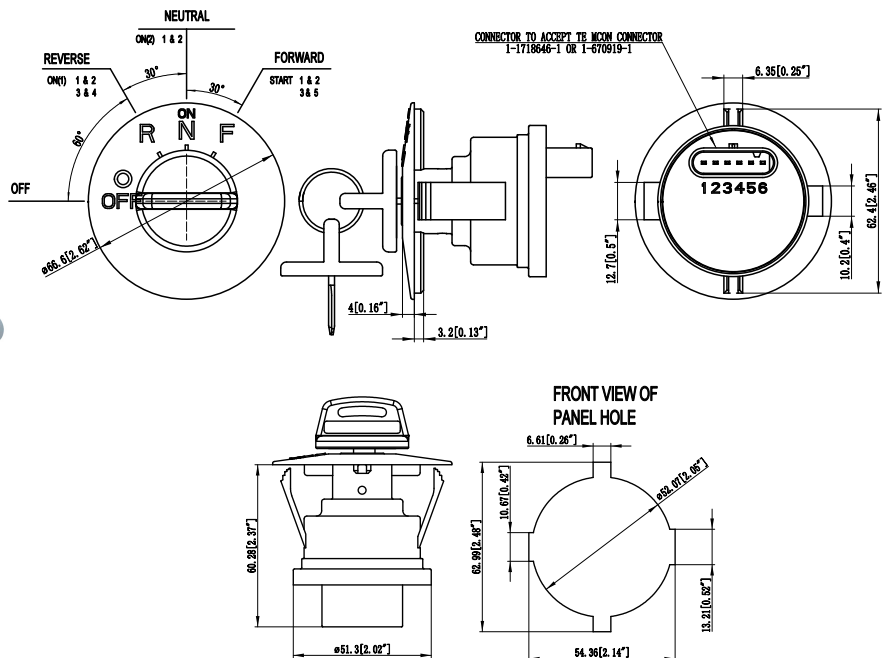
Key Types

K1 (Single Sided Key)	K2 (Double Sided Key)	K3 (Double Sided Key)	K4 (601 Key)	455 (455 Key)
Custom Key				

D-shaft IHP-04HD



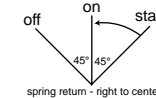
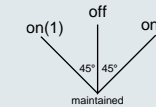
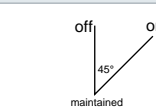
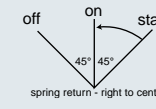
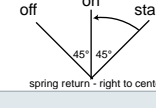
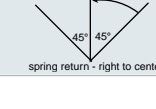
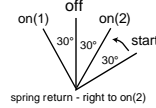
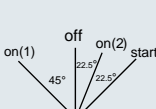
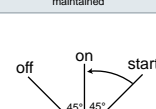
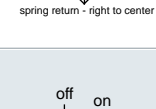
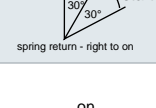
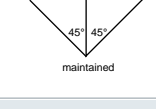
IHP-030PA-X1



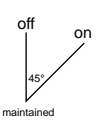

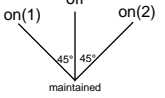

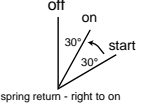
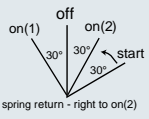
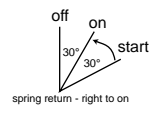
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Catalog Listing	Key Remove-able	Circuitry O = Circuit Open; X = Circuit Closed	Connector #Terminals	Sping Return	Dimensions																				
IHP-17	Off	<table border="1"> <tr><td>A&B</td><td>Off</td><td>On</td><td>Start</td></tr> <tr><td>B&C</td><td>O</td><td>X</td><td>X</td></tr> <tr><td>C&F</td><td>O</td><td>X</td><td>O</td></tr> <tr><td>D&E</td><td>O</td><td>X</td><td>O</td></tr> </table>	A&B	Off	On	Start	B&C	O	X	X	C&F	O	X	O	D&E	O	X	O	Metri-Pack 6	Yes	Dimension #3				
A&B	Off	On	Start																						
B&C	O	X	X																						
C&F	O	X	O																						
D&E	O	X	O																						
IHP-18	Off	<table border="1"> <tr><td>A&B</td><td>Off</td><td>On</td><td>Start</td></tr> <tr><td>B&C</td><td>O</td><td>X</td><td>X</td></tr> <tr><td>C&F</td><td>O</td><td>X</td><td>O</td></tr> <tr><td>D&E</td><td>O</td><td>X</td><td>X</td></tr> </table>	A&B	Off	On	Start	B&C	O	X	X	C&F	O	X	O	D&E	O	X	X	Metri-Pack 6	Yes	Dimension #3				
A&B	Off	On	Start																						
B&C	O	X	X																						
C&F	O	X	O																						
D&E	O	X	X																						
IHP-25	Off	<table border="1"> <tr><td>A&D</td><td>Off</td><td>On</td><td></td></tr> <tr><td>B&C</td><td>O</td><td>X</td><td>O</td></tr> </table>	A&D	Off	On		B&C	O	X	O	Metri-Pack 4	No	Dimension #2												
A&D	Off	On																							
B&C	O	X	O																						
IHP-26	Off	<table border="1"> <tr><td>A&D</td><td>Off</td><td>On</td><td>Start</td></tr> <tr><td>B&C</td><td>O</td><td>X</td><td>X</td></tr> </table>	A&D	Off	On	Start	B&C	O	X	X	Metri-Pack 4	Yes	Dimension #2												
A&D	Off	On	Start																						
B&C	O	X	X																						
IHP-65	Off	<table border="1"> <tr><td>E&F</td><td>Off</td><td>On</td><td>Start</td></tr> <tr><td>A&F</td><td>X</td><td>O</td><td>O</td></tr> <tr><td>C&D</td><td>O</td><td>X</td><td>X</td></tr> <tr><td>A&B</td><td>O</td><td>O</td><td>X</td></tr> </table>	E&F	Off	On	Start	A&F	X	O	O	C&D	O	X	X	A&B	O	O	X	Metri-Pack 6	Yes	Dimension #3				
E&F	Off	On	Start																						
A&F	X	O	O																						
C&D	O	X	X																						
A&B	O	O	X																						
IHP-66	Off	<table border="1"> <tr><td>E&F</td><td>Off</td><td>On(1)</td><td>On(2)</td><td>Start</td></tr> <tr><td>A&E</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>C&D</td><td>O</td><td>X</td><td>O</td><td>O</td></tr> <tr><td>A&B</td><td>O</td><td>X</td><td>X</td><td>X</td></tr> </table>	E&F	Off	On(1)	On(2)	Start	A&E	X	X	X	X	C&D	O	X	O	O	A&B	O	X	X	X	Metri-Pack 6	Yes	Dimension #3
E&F	Off	On(1)	On(2)	Start																					
A&E	X	X	X	X																					
C&D	O	X	O	O																					
A&B	O	X	X	X																					
IHP-77	Off	<table border="1"> <tr><td>A&B</td><td>Off</td><td>On(1)</td><td>On(2)</td><td>Start</td></tr> <tr><td>A&B&D</td><td>O</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>A&B&C&D</td><td>O</td><td>O</td><td>O</td><td>X</td></tr> </table>	A&B	Off	On(1)	On(2)	Start	A&B&D	O	X	X	X	A&B&C&D	O	O	O	X	Metri-Pack 4	Yes	Dimension #2					
A&B	Off	On(1)	On(2)	Start																					
A&B&D	O	X	X	X																					
A&B&C&D	O	O	O	X																					
IHP-58	Off	<table border="1"> <tr><td>A&B</td><td>Off</td><td>On(1)</td><td>On(2)</td><td>Start</td></tr> <tr><td>A,B&D</td><td>O</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>A,B,C&D</td><td>O</td><td>O</td><td>O</td><td>X</td></tr> </table>	A&B	Off	On(1)	On(2)	Start	A,B&D	O	X	X	X	A,B,C&D	O	O	O	X	Metri-Pack 4	Yes	Dimension #2					
A&B	Off	On(1)	On(2)	Start																					
A,B&D	O	X	X	X																					
A,B,C&D	O	O	O	X																					
IHP-80	Off	<table border="1"> <tr><td>E&F</td><td>On</td><td>Off</td><td>On</td></tr> <tr><td>A&F</td><td>X</td><td>O</td><td>O</td></tr> <tr><td>C&D</td><td>O</td><td>X</td><td>X</td></tr> <tr><td>A&B</td><td>O</td><td>O</td><td>X</td></tr> </table>	E&F	On	Off	On	A&F	X	O	O	C&D	O	X	X	A&B	O	O	X	Metri-Pack 6	No	Dimension #3				
E&F	On	Off	On																						
A&F	X	O	O																						
C&D	O	X	X																						
A&B	O	O	X																						
IHP-697	Off, On(1)	<table border="1"> <tr><td>B&C</td><td>Off</td><td>On(1)</td><td>On(2)</td></tr> <tr><td>A&D</td><td>O</td><td>X</td><td>X</td></tr> </table>	B&C	Off	On(1)	On(2)	A&D	O	X	X	Metri-Pack 4	No	Dimension #2												
B&C	Off	On(1)	On(2)																						
A&D	O	X	X																						
IHP-28	Off	<table border="1"> <tr><td>B&B1</td><td>Off</td><td>On</td></tr> <tr><td>B&3</td><td>X</td><td>O</td></tr> <tr><td>B&3</td><td>O</td><td>X</td></tr> </table>	B&B1	Off	On	B&3	X	O	B&3	O	X	Screw 3	No	Dimension #1											
B&B1	Off	On																							
B&3	X	O																							
B&3	O	X																							
IHP-49	Off	<table border="1"> <tr><td>B&3</td><td>Off</td><td>On</td></tr> <tr><td>B1&3</td><td>O</td><td>X</td></tr> </table>	B&3	Off	On	B1&3	O	X	Screw 3	No	Dimension #1														
B&3	Off	On																							
B1&3	O	X																							
IHP-50	Off	<table border="1"> <tr><td>B&B1</td><td>Off</td><td>On</td></tr> <tr><td>B&3</td><td>X</td><td>X</td></tr> <tr><td>B&3</td><td>O</td><td>X</td></tr> </table>	B&B1	Off	On	B&3	X	X	B&3	O	X	Screw 3	No	Dimension #1											
B&B1	Off	On																							
B&3	X	X																							
B&3	O	X																							
IHP-47	Off Add 'R' to PN for All-position	<table border="1"> <tr><td>B&3</td><td>Off</td><td>On</td></tr> <tr><td>B1&4</td><td>O</td><td>X</td></tr> <tr><td>B1&4</td><td>O</td><td>X</td></tr> </table>	B&3	Off	On	B1&4	O	X	B1&4	O	X	Screw 4	No	Dimension #1											
B&3	Off	On																							
B1&4	O	X																							
B1&4	O	X																							

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Catalog Listing	Key Remove-able	Circuitry O = Circuit Open; X = Circuit Closed	Connector #Terminals	Spring Return	Dimensions																														
IHP-29	Off	 <table border="0"> <tr> <td>B&B1</td> <td>Off</td> <td>On</td> <td>Start</td> </tr> <tr> <td>B&3</td> <td>O</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>O</td> <td>O</td> <td>X</td> </tr> </table>	B&B1	Off	On	Start	B&3	O	X	X		O	O	X	Screw 3	Yes	Dimension #1																		
B&B1	Off	On	Start																																
B&3	O	X	X																																
	O	O	X																																
IHP-73	Off Add 'R' to PN for All-position	 <table border="0"> <tr> <td>B&1</td> <td>On(1)</td> <td>Off</td> <td>On(2)</td> </tr> <tr> <td>B1&2</td> <td>X</td> <td>O</td> <td>O</td> </tr> <tr> <td>B&3</td> <td>X</td> <td>O</td> <td>O</td> </tr> <tr> <td>B1&4</td> <td>O</td> <td>O</td> <td>X</td> </tr> <tr> <td></td> <td>O</td> <td>O</td> <td>X</td> </tr> </table>	B&1	On(1)	Off	On(2)	B1&2	X	O	O	B&3	X	O	O	B1&4	O	O	X		O	O	X	Screw 6	No	Dimension #1										
B&1	On(1)	Off	On(2)																																
B1&2	X	O	O																																
B&3	X	O	O																																
B1&4	O	O	X																																
	O	O	X																																
IHP-51	Off	 <table border="0"> <tr> <td>B&C</td> <td>Off</td> <td>On</td> </tr> <tr> <td>A&D</td> <td>X</td> <td>O</td> </tr> <tr> <td></td> <td>O</td> <td>X</td> </tr> </table>	B&C	Off	On	A&D	X	O		O	X	Sumitomo	No	Dimension #4																					
B&C	Off	On																																	
A&D	X	O																																	
	O	X																																	
IHP-82	Off	 <table border="0"> <tr> <td>A&D</td> <td>Off</td> <td>On</td> <td>Start</td> </tr> <tr> <td>B&C</td> <td>O</td> <td>X</td> <td>O</td> </tr> <tr> <td>C&D</td> <td>O</td> <td>O</td> <td>X</td> </tr> <tr> <td></td> <td>O</td> <td>X</td> <td>X</td> </tr> </table>	A&D	Off	On	Start	B&C	O	X	O	C&D	O	O	X		O	X	X	Sumitomo	Yes	Dimension #4														
A&D	Off	On	Start																																
B&C	O	X	O																																
C&D	O	O	X																																
	O	X	X																																
IHP-90	Off	 <table border="0"> <tr> <td>B&C</td> <td>Off</td> <td>On</td> <td>Start</td> </tr> <tr> <td>B&D</td> <td>O</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>O</td> <td>O</td> <td>X</td> </tr> </table>	B&C	Off	On	Start	B&D	O	X	X		O	O	X	Sumitomo	Yes	Dimension #4																		
B&C	Off	On	Start																																
B&D	O	X	X																																
	O	O	X																																
IHP-33	Off	 <table border="0"> <tr> <td>B&C</td> <td>Off</td> <td>On</td> <td>Start</td> </tr> <tr> <td>A&D</td> <td>O</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>O</td> <td>O</td> <td>X</td> </tr> </table>	B&C	Off	On	Start	A&D	O	X	X		O	O	X	Sumitomo	Yes	Dimension #4																		
B&C	Off	On	Start																																
A&D	O	X	X																																
	O	O	X																																
IHP-01H	Off	 <table border="0"> <tr> <td></td> <td>On(1)</td> <td>Off</td> <td>On(2)</td> <td>Start</td> </tr> <tr> <td>1&6</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>4&5</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>1,6&2</td> <td>O</td> <td>O</td> <td>O</td> <td>X</td> </tr> <tr> <td>1,6&3</td> <td>X</td> <td>O</td> <td>X</td> <td>O</td> </tr> <tr> <td>1,6&4,5</td> <td>O</td> <td>O</td> <td>X</td> <td>X</td> </tr> </table>		On(1)	Off	On(2)	Start	1&6	X	X	X	X	4&5	X	X	X	X	1,6&2	O	O	O	X	1,6&3	X	O	X	O	1,6&4,5	O	O	X	X	Deutsch 6	Yes	Dimension #6
	On(1)	Off	On(2)	Start																															
1&6	X	X	X	X																															
4&5	X	X	X	X																															
1,6&2	O	O	O	X																															
1,6&3	X	O	X	O																															
1,6&4,5	O	O	X	X																															
IHP-02	Off	 <table border="0"> <tr> <td></td> <td>On(1)</td> <td>Off</td> <td>On(2)</td> <td>Start</td> </tr> <tr> <td>1&6</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>4&5</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>1,6&2</td> <td>O</td> <td>O</td> <td>O</td> <td>X</td> </tr> <tr> <td>1,6&3</td> <td>X</td> <td>O</td> <td>X</td> <td>O</td> </tr> <tr> <td>1,6&4,5</td> <td>O</td> <td>O</td> <td>X</td> <td>X</td> </tr> </table>		On(1)	Off	On(2)	Start	1&6	X	X	X	X	4&5	X	X	X	X	1,6&2	O	O	O	X	1,6&3	X	O	X	O	1,6&4,5	O	O	X	X	Deutsch 6	No	Dimension #5
	On(1)	Off	On(2)	Start																															
1&6	X	X	X	X																															
4&5	X	X	X	X																															
1,6&2	O	O	O	X																															
1,6&3	X	O	X	O																															
1,6&4,5	O	O	X	X																															
IHP-03	Off	 <table border="0"> <tr> <td>1&6</td> <td>Off</td> <td>On</td> <td>Start</td> </tr> <tr> <td>4&5</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>1,6&2</td> <td>O</td> <td>O</td> <td>X</td> </tr> <tr> <td>1,6&3</td> <td>O</td> <td>X</td> <td>O</td> </tr> <tr> <td>1,6&4,5</td> <td>O</td> <td>X</td> <td>X</td> </tr> </table>	1&6	Off	On	Start	4&5	X	X	X	1,6&2	O	O	X	1,6&3	O	X	O	1,6&4,5	O	X	X	Deutsch 6	Yes	Dimension #5										
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IHP-04H	Off	 <table border="0"> <tr> <td>1&6</td> <td>Off</td> <td>On</td> <td>Start</td> </tr> <tr> <td>1,6&2</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>1,6&4</td> <td>O</td> <td>X</td> <td>X</td> </tr> </table>	1&6	Off	On	Start	1,6&2	X	X	X	1,6&4	O	X	X	Deutsch 6	Yes	Dimension #6																		
1&6	Off	On	Start																																
1,6&2	X	X	X																																
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IHP-05	Off	 <table border="0"> <tr> <td>1&6</td> <td>Off</td> <td>On</td> <td>Start</td> </tr> <tr> <td>4&5</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>1,6&2</td> <td>O</td> <td>O</td> <td>X</td> </tr> <tr> <td>1,6&3</td> <td>O</td> <td>X</td> <td>O</td> </tr> <tr> <td>1,6&4,5</td> <td>O</td> <td>X</td> <td>X</td> </tr> </table>	1&6	Off	On	Start	4&5	X	X	X	1,6&2	O	O	X	1,6&3	O	X	O	1,6&4,5	O	X	X	Deutsch 6	No	Dimension #5										
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IHP-06	Off	 <table border="0"> <tr> <td></td> <td>On(1)</td> <td>Off</td> <td>On(2)</td> </tr> <tr> <td>1&6</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>4&5</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>1,6&3</td> <td>X</td> <td>O</td> <td>O</td> </tr> <tr> <td>1,6&4,5</td> <td>O</td> <td>O</td> <td>X</td> </tr> </table>		On(1)	Off	On(2)	1&6	X	X	X	4&5	X	X	X	1,6&3	X	O	O	1,6&4,5	O	O	X	Deutsch 6	No	Dimension #5										
	On(1)	Off	On(2)																																
1&6	X	X	X																																
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IHP (Plastic) and IHM (Metal) Series Ignition Switches

Catalog Listing	Key Remove-able	Circuitry O = Circuit Open; X = Circuit Closed				Connector #Terminals	Sping Return	Dimensions		
IHP-07	Off		1&6 4&5 1,6&3 1,6&4,5	Off X X O O	On X X X X	Deutsch 6	No	Dimension #5		
IHP-08	Off		1&2 4&3 1&6 4&5	Off X X O O	On O O X X	Deutsch 6	No	Dimension #5		
IHP-09	Off		1&2 4&3 1&6 4&5	On(1) X X O O	Off O O O O	On(2) O O X X	Deutsch 6	No	Dimension #5	
IHP-010	Off		1&6 4&5	Off O O	On X X	Deutsch 6	No	Dimension #5		
IHP-012H_-V	Off		1&2 3&4 5&6	Off O O O	On X X O	Start X X X	Deutsch 6	Yes	Dimension #6	
IHP-01H_A*	Off		1&6 4&5 1,6&2 1,6&3 1,6&4,5	On(1) X X O X O	Off X X O O O	On(2) X X O X X	Start X X O O X	Deutsch 6	Yes	Dimension #6
IHP-03H_A*	Off		1&6 4&5 1,6&2 1,6&3 1,6&4,5	Off X X O O O	On X X O X X	Start X X X O X	Deutsch 6	Yes	Dimension #6	

*Support anti-restart feature