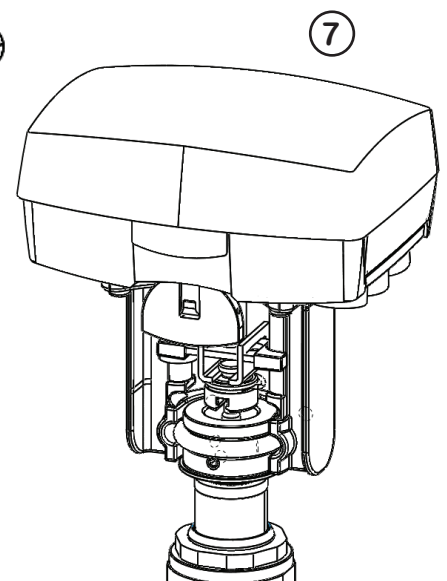
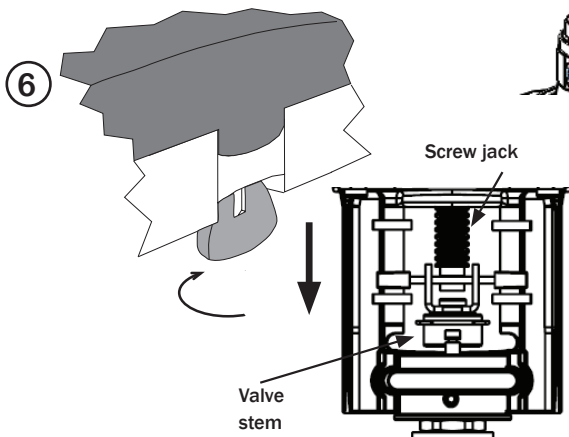
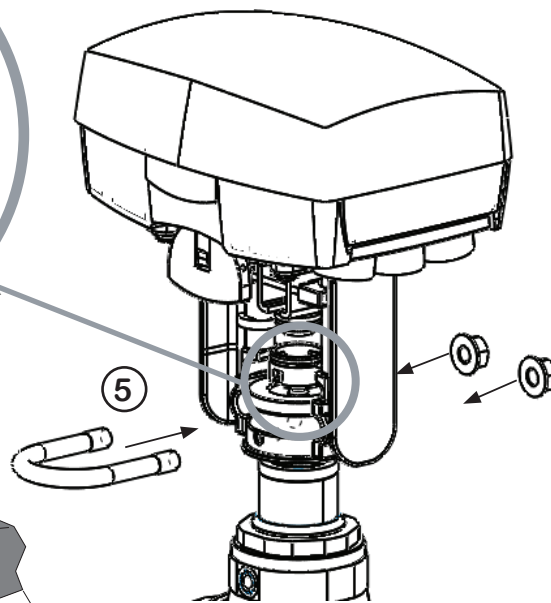
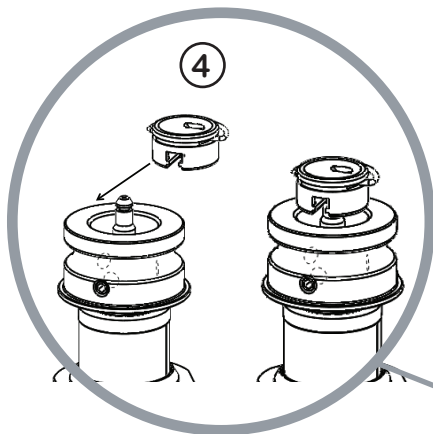
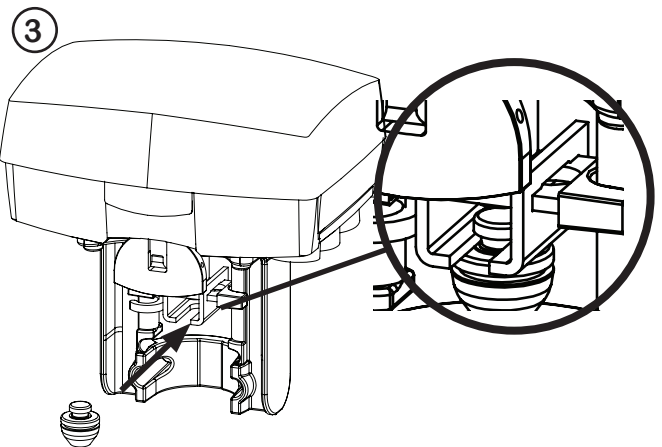
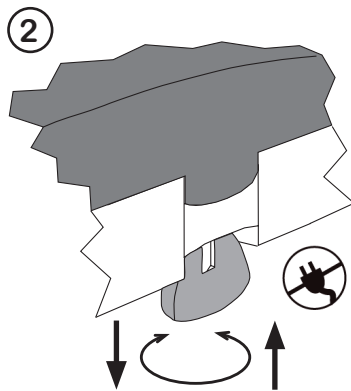
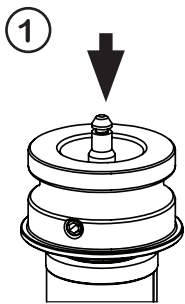
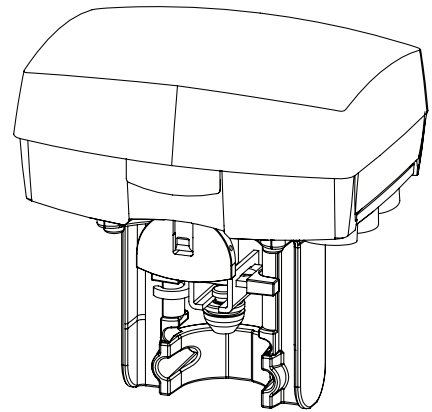


DAIKIN

DKN-MP500C

Installation and Configuration Instructions



Mounting and Installation

Terminal Connections

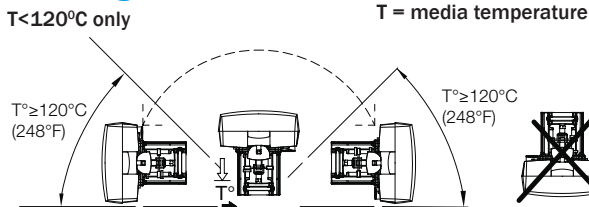


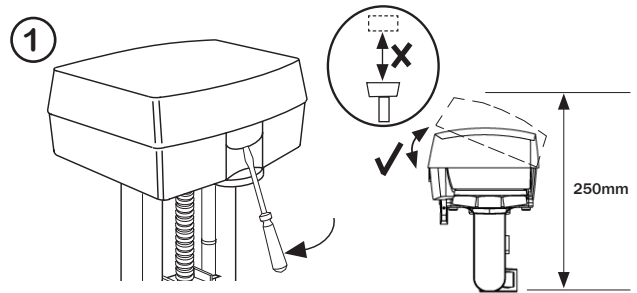
Fig 1 When media T ° exceeds 120° mount the actuator between 45° and the horizontal position.

Terminal	Function	Description
24~	24 Vac	Supply voltage
⊥24	Ground	
Y	Input, proportional	Modulating Control signal
M	Input, neutral, proportional	
Y2	Increase, 3-point	Floating/Digital (Y1, Y2 connected to ⊥24)
Y1	Decrease, 3-point	
U	0...100% (2...10 Vdc)	Feedback signal (reference to ⊥24)

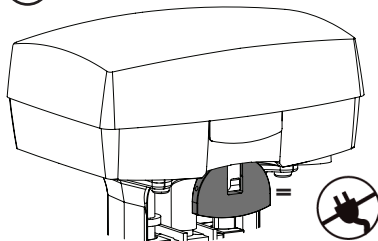
24~, ⊥24= Max 100 m (328ft.), 1.5 mm² (AWG 16)
Other cables: Max 200 m (656 ft.) 0.5 mm² (AWG 20)

Dip Switch Selection and Electrical Connections

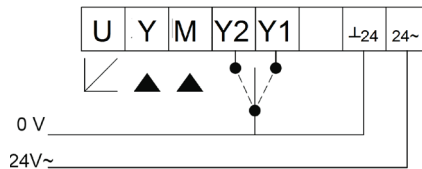
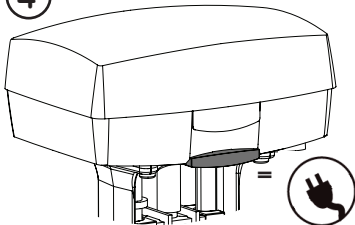
1. Remove cover by levering up the front tab and pivoting backwards. Replace cover by reversing process, locating the rear edge before tilting in to place.
2. Flip down Manual override lever to disengage power and the operating signal to the PCB. Wire actuator accordingly.
3. Make necessary electrical connection and dip switch changes (Switch 1-8).
4. Raise manual override lever; the actuator then verifies valve open position.
5. Operate Dip Switch 9 to calibrate valve.



2

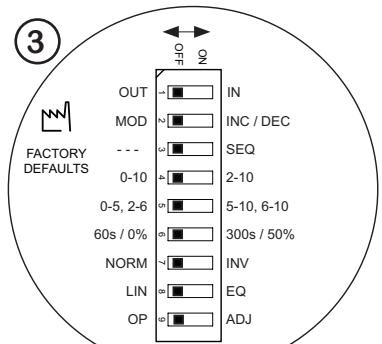


4



Always calibrate the actuator using Dip switch 9 after mounting onto the valve and electrical power has been applied. Momentarily move switch 9 to ON and then back to Off again to start the automatic end stop calibration process.

3



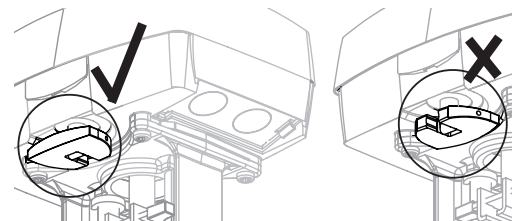
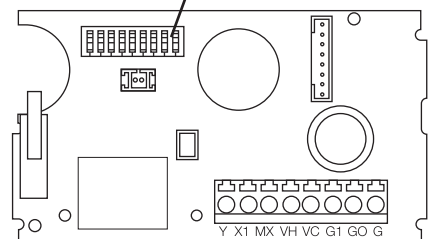
Pg.3 Kalibrera alltid ställdonet med doppskopplare 9 efter monteringen på ventilen och elektrisk ström har anslutits. Flytta momentant omkopplare 9 till ON och sedan tillbaka till Off igen för att starta den automatiska slutstoppkalibreringsprocessen.

S. 3 Kalibrieren Sie den Antrieb immer mit dem Dip-Schalter 9, nachdem Sie ihn am Ventil montiert und mit Strom versorgt haben.

Stellen Sie den Schalter 9 kurz auf ON und dann wieder auf Off, um den automatischen Endstopp-Kalibrierungsprozess zu starten.

Pg. 3 Toujours calibrer l'actionneur à l'aide du commutateur DIP 9 après le montage sur la vanne et l'alimentation électrique a été appliquée.

Déplacez momentanément le commutateur 9 sur ON, puis de nouveau sur Off pour démarrer le processus d'étalonnage de fin de course automatique.



g 3 安裝到閥門上並通電後，請始終使用撥碼開關9校準執行器。暫時將開關9移至ON，然後再次移至Off，以開始自動終止動校準過程。

Pág. 3 Siempre calibre el actuador usando el interruptor DIP 9 después de montarlo en la válvula y de haber aplicado energía eléctrica. Mueva momentáneamente el interruptor 9 a ON y luego de nuevo a Off para iniciar el proceso automático de calibración de parada final.

Pg. 3 Всегда калибруйте привод с помощью микропереключателя 9 после установки на клапан и подачи электроэнергии. На мгновение переведите переключатель 9 в положение ON, а затем снова в положение Off, чтобы начать процесс автоматической калибровки конечного упора.

Note: The DKN-MP500C actuators are very flexible and can be configured to function on a number of valves or applications but in general it is expected the actuator will be operated with all configuration settings in the Off position.

SV. Obs: DKN-MP500C ställdon är mycket flexibla och kan konfigureras för att fungera på ett antal ventiler eller applikationer, men i allmänhet förväntas att ställdonet kommer att användas med alla konfigurationsinställningar i läget Av.

Hinweis: Die DKN-MP500C-Stellantriebe sind sehr flexibel und können so konfiguriert werden, dass sie an einer Reihe von Ventilen oder Anwendungen funktionieren. Im Allgemeinen wird jedoch erwartet, dass der Stellantrieb mit allen Konfigurationseinstellungen in der Position Aus betrieben wird.

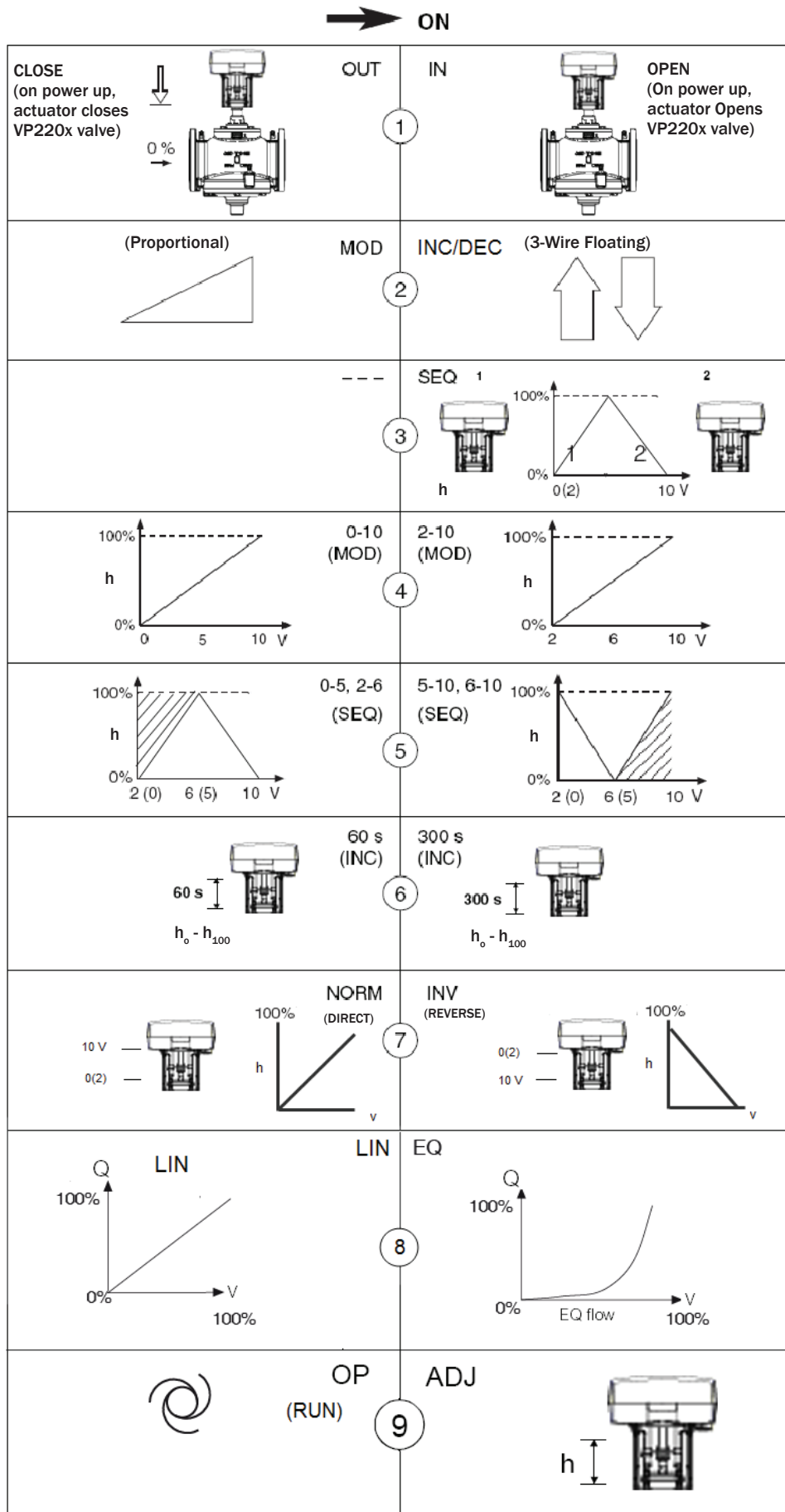
Remarque: Les actionneurs DKN-MP500C sont très flexibles et peuvent être configurés pour fonctionner sur un certain nombre de vannes ou d'applications, mais en général, il est prévu que l'actionneur fonctionnera avec tous les paramètres de configuration en position Off.

Nota: Los actuadores DKN-MP500C son muy flexibles y se pueden configurar para funcionar en varias válvulas o aplicaciones, pero en general se espera que el actuador funcione con todos los ajustes de configuración en la posición de apagado.

CN. 注意: DKN-MGxxx 執行器非常靈活，可以配置為在多種閥門或應用上運行，但是通常，期望執行器在所有配置設置為“關”位置時都可以運行。

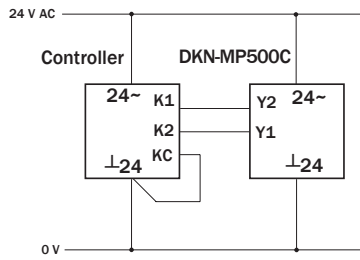
RU. Примечание. Приводы DKN-MGxxx очень гибкие и могут быть настроены для работы с рядом клапанов или приложений, но в целом ожидается, что привод будет работать со всеми настройками конфигурации в положении «Выкл.».

Dip Switch Settings



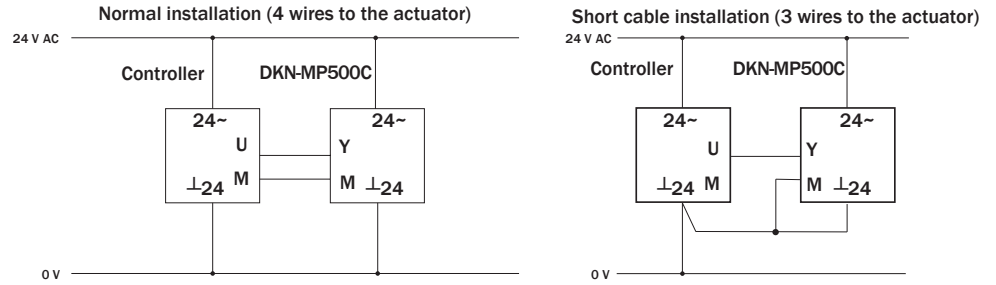
Wiring Diagrams

Increase/Decrease (Floating)



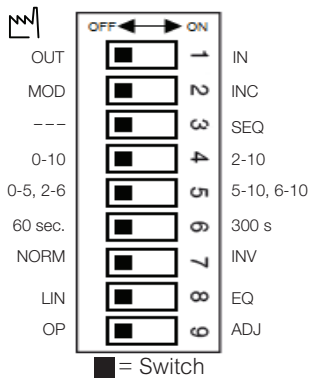
50VA transformer required per actuator.

Modulating (Proportional)



50VA transformer required per actuator.

Dip Switch Settings




There is a 9 switch configuration block on the circuit board. The factory setting is all switches in the “OFF” position. Adjust these settings prior to engaging power and any subsequent changes to the DIP switches will not be registered until the power is interrupted, or when switch No. 9 is initiated for stroke calibration.

- **SW1 Valve closing direction.**
 - OFF: Actuator fully extends to a closing control signal (normal operation for VP220x SmartX PIBCV).
 - ON: Actuator fully retracts on a closing control signal. On power up, the actuator will move to the closed position as set from Switch 1 before becoming under the command of the control signal. The direction of operation from the input control signal and the position feedback signal will also be influenced by switch 7.
- **SW2 Control signal MOD / INC.**
 - DKN-MP500C is either controlled by a variable direct voltage, for a modulating signal (MOD), or by a 3-point increase/decrease signal (INC).
- **SW3 Sequence or parallel control - - /SEQ.**
 - With sequence (or parallel) control (SEQ), two actuators/valves can be controlled by only one control signal. See switch 4 and 5 to select the control signal range
 - If sequence or parallel control is not used, the switch - - /SEQ must be in the OFF position.
- **SW4 Input Voltage range 0...10 / 2...10.**
 - Choose between 0...10 Vdc or 2...10 Vdc control signal range. 0...20mA or 4...20mA is possible with connection of the optional 500 Ohm resistor.
- **SW5 Operational voltage range (0..5, 2..6 / 5...10, 6..10)**
 - When switch 3 (SEQ) is ON choose the operational voltage range.
 - OFF: low: 0...5 V (2...6 V)
 - ON: high: 5...10 V (6...10 V)

The bracketed control voltage is operational with switch 4 ON.

- **SW6 Running time 60 s / 300 s.**
 - On increase/decrease control, this switch selects the running time between 60 s (Off) or 300 s (On). With modulating control, the running time is always 15 s.
- **SW7 Direction of movement NORM / INV.**
 - OFF (NORM): Normal direction of movement. Actuator retracts to provide an open valve on an open control signal.
 - ON (INV): Inverse direction of movement. Actuator extends to provide a closed valve on an open control signal. This operation is reversed with Sw.1 ON but this may be desired if the power up position according to switch 1 needs to be flipped. Feedback is directly linked to switch 7 and is not influenced by switch 1.
- **SW8 Flow Characteristic LIN/EQ. The motorized valve characteristics can be modified.**
 - The setting EQ will change the VP220x valve from a linear flow characteristic to an equal percentage.
- **SW9 Input signal and stroke Calibration OP / ADJ.**
 - This switch is only used to calibrate the stroke end positions.
 - To initiate, momentarily move the switch to the ON position then back to the OFF position. At the end of the adjustment all the other dip switch settings (1 to 8) will be registered again.

Commercial Reference	Range Brand		Product Description				
DKN-MP500C	DKN ACTUATORS		DKN-MP500C PIBCV Valve Actuator				
有害物质 - Hazardous Substances							
部件名称 Part Name	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	
属部件 Metal Parts	X	O	O	O	O	O	
塑料部件 Plastic Parts	O	O	O	O	O	O	
电子件 Electronic	X	O	O	O	O	O	
触点 Contacts	O	O	O	O	O	O	
线缆和线缆附件 Cable & Cabling Accessories	O	O	O	O	O	O	
<p>本表格依据 SJ/T11364 的规定编制。 O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。 X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。 (企业可在此处, 根据实际情况对上表中打 "X" 的技术原因进行进一步说明。)</p> <p>This table is made according to SJ/T 11364. O: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572. X: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572</p>							