

VKP40

robust proportional control valve for gas.

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VKP40 is our proportional flow control valve

within the Siemens gas controls range. It is designed to adjust the gas flow of any gas burning appliance. Even at heat treatment applications which require robust solutions with high turn down rates and high cycling rates the device can be used..

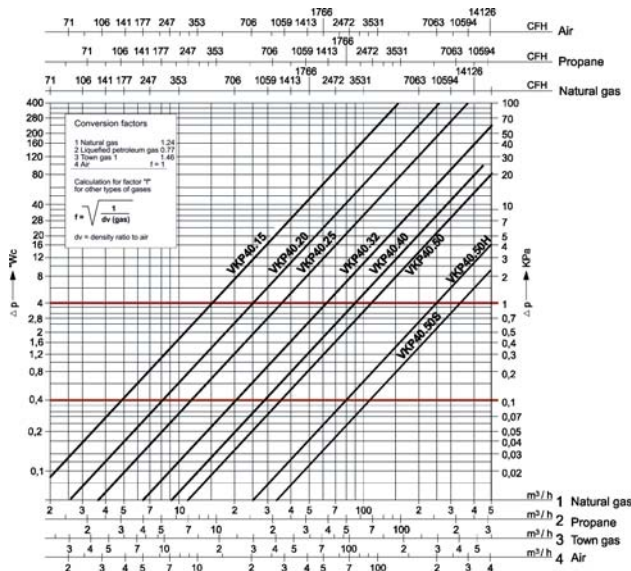
VKP40 is an integrated control suited to be combined with the wide range of Siemens damper actuators.

For example: Synchronous actuators operating via floating control or 4...20mA signals. In combination with stepper motor actuators the VKP40 becomes an integral component of an electronic linkageless system.

VKP40 offers traditional the pipe mounting but also the possibility to be mounted directly to a VGD20 gas valve body.

HIGHLIGHTS

- 1 housing, 8 flow characteristics
- 6 flange sizes 1/2" ... 2"
- High turn down range >1:25; low min. flow
- Proportional flow Increase 0...90°
- High cycling rate 500 000 full cycles
- Gas families EN437...0.1% H₂S and air
- Gas burners for heating appliances EN676; gas burners for heat treatment applications EN746-2EN267



Application range

The gas flow control rate depends on the selected VKP40 type code. Based on the same housing size 8 scaled flow control profiles could be selected according to the intended load range.

Even specific flow control characteristics could be realized creating special flow profiles.

VKP40 – robust and uncomplicated

VKP40 flow control and SQx actuators - harmonized components

VKP40 includes a specific coupling which enables to connect SQN actuators with an \varnothing 8mm D-shaft and SQM actuators with a \varnothing 10mm D-shaft.



Example: Floating control VKP40 with damper actuators

VKP40 concept

The complete flow control solution is an assembly combining the flow control device VKP40, AGF10 flanges for pipe connection, and a SQx actuator.

Available basic motor types:	SQM50...	SQN13...	SQN72...	SQM...	SQ...												
	shaft AGA58.5 D 8.5/10	shaft D 7/8	shaft D 7/8	shaft D 8.5/10	+												
	ASK33.3	ASK33.2	Default adaption on VKP40 no extra plate required	ASK33.1	ASK33...												
	Same housing size, 8 different built in flow determining cylinders				+												
	 VKP40.15 VKP40.20 VKP40.25 VKP40.32 VKP40.40 VKP40.50 VKP40.50H VKP40.50S				VKP40... 8 type-codes												
	Flanges to be ordered as individual unit (as used for VGD20) <table border="1"> <tr> <td>AGF10.15(U)</td> <td>AGF10.20(U)</td> <td>AGF10.25(U)</td> <td>AGF10.32(U)</td> <td>AGF10.40(U)</td> <td>AGF10.50(U)</td> </tr> <tr> <td>1/2"</td> <td>3/4"</td> <td>1"</td> <td>1 1/4"</td> <td>1 1/2"</td> <td>2"</td> </tr> </table>				AGF10.15(U)	AGF10.20(U)	AGF10.25(U)	AGF10.32(U)	AGF10.40(U)	AGF10.50(U)	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	AGF... 12 type-codes
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Example: Floating control VKP40/SQN72 mounted to VGD20

Suitable actuators	Required adapter plate ASK33.1 ASK33.2 ASK33.3	Running time in s / 90°	Cam switch no.	Mains voltage	Potentiometer	Degree of protection	Data sheet
SQN13...	ASK33.2	stepper	---	---	---	IP54	N7803
SQM33...	ASK33.1	stepper	---	---	---	IP54	N7813
SQM40.025A21	ASK33.1	5	5	AC 230 V	included	IP66	N7817
SQM40.245A11	ASK33.1	30	5	AC 120 V	included	IP66	N7817
SQM40.145A21	ASK33.1	15	5	AC 230 V	included	IP66	N7817
SQM40.245A21	ASK33.1	30	5	AC 230 V	included	IP66	N7817
SQM45.295A9	ASK33.1	stepper	---	---	---	IP54	N7814
SQN72.2C4A21	---	4	4	AC 230 V	ASZ12.30	IP54	N7804
SQN72.4C4A21	---	12	4	AC 230 V	ASZ12.30	IP54	N7804
SQN72.6C4A11	---	30	4	AC 120 V	ASZ12.30	IP54	N7804
SQN72.6C4A21	---	30	4	AC 230 V	ASZ12.30	IP54	N7804
SQN72.6E5A21	---	30	5	AC 230 V	ASZ12.30	IP54	N7804
SQM50.../AGA58.5	ASK33.3	10...60s	8	AC 24 V AC 120 V AC 230 V	ASZ12.30	IP54	N7815

Table: Type overview, further information see data sheet CC1N7646

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