

#### PRODUCT INFORMATION



**Explosion Isolation** 

### QUENCH VALVE QV II + QV III





Quench valves QV II and QV III are isolation devices. This protective system prevents an explosion pressure wave and flame propagating via connecting pipes into other equipment sections or plant areas. For this reason the quench valve is connected to a controller (EXKOP® Express or EXKOP® TriCon)\*. In the case of an explosion, the controller receives a trigger signal (e.g. from the signalling unit of the Q-Rohr® or an explosion vent, from a pressure switch or spark detector) and activates the connected quench valves. These close within a few milliseconds and thus prevent the explosion from spreading to adjacent plant components. After being triggered, the quench valves can be put back in operation once again at the touch of a button.

#### Additional functions:

- Spark arrester (e.g. between a mill and the product filter)
- Overpressure limiter (e.g. between a silo vehicle and the silo)

### **Your advantages**

- **Compact design** for flexible integration into the production process.
- · High level of safety due to very rapid closing times.
- · Returns to operation immediately after triggering.
- Fail Safe mechanism automatically closes the valve if the power supply fails or the valve is manipulated.

\*Detailled information concerning controllers can be found in the related product information.



ATEX EC type examination certificate no. FSA 04 ATEX 1537 X FSA 15 ATEX 1659 X



Technical data*		QV II		QV III		
Diameter nominal**		DN 80-DN 200	DN 250	DN 300-DN 600		
Housing material		Alu, painted (RAL 1015)	St 37.2, painted (RAL 1015)			
Flanges		acc. to EN 1092-1 Type 11 (PN 10)***				
	Medium	organic and chemical dusts				
	K <sub>st</sub>	≤ 300 bar × m/s	≤ 200 bar×m/s	≤ 300 bar×m/s		
	P <sub>max</sub>	≤ 10 bar				
Operating limits	MIE	≥ 3 mj				
UITIILS	P <sub>red</sub>	≤ 2.0 bar	≤ 1.0 bar	≤ 2.0 bar		
	Allowable flow rate	≤ 30 m/s				
	ATEX category (indoor/outdoor)	1D/3D				
Suitable for use in food processing industry		Yes				
Ambient ten	nperature	+5 to +60 °C****				
Installation position		Any				
Power supply		24 VDC from EXKOP® II controller				
Compressed air supply		6.0 bar gauge pressure from system network				
Compressed air connection		8 mm (Festo)				
Protection type		IP 65				

<sup>\*</sup>Our specialists will be pleased to assist you in finding a solution that matches your specific operating conditions.

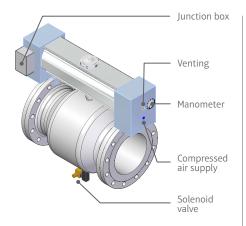
<sup>\*\*</sup>Other nominal diameters available on request.

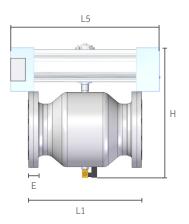
<sup>\*\*\*</sup>Replaces DIN 2632, PN 10

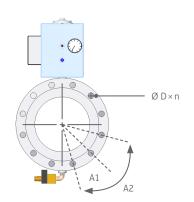
<sup>\*\*\*\*</sup>Other ambient temperature available on request.

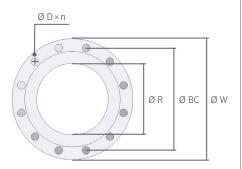
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Flange diameter

Dimensions QV II							
		EXKOP® QV II - 3	EXKOP® QV II - 4	EXKOP® QV II - 5	EXKOP® QV II - 6	EXKOP® QV II - 8	EXKOP® QV II - 10
Diameter nominal	DN	80	100	125	150	200	250
Length L1	[mm]	228	282	350	420	555	610
Length L5	[mm]	400	400	400	400	650	800
Height H	[mm]	520	554	600	652	742	856
E	[mm]	29	35	39	43	60	49
Ø D×n	[mm]	18×8	18×8	18×8	22×8	22×8	22×12
A1		22.5°	22.5°	22.5°	22.5°	22.5°	15°
A2		45°×8	45°×8	45°×8	45°×8	45°×8	30°×12
Ø R	[mm]	80	100	120	145	190	240
Ø BC	[mm]	160	180	210	240	295	350
øw	[mm]	200	220	250	285	340	395
Weight	[kg]	13	18	26	35	56	130

Other dimensions available on request.

Mounting distances for QV II with St1					
Diameter nominal	DN 80-DN 200	DN 250			
Min. mounting distance	6	7			
Max. mounting distance	20	8			

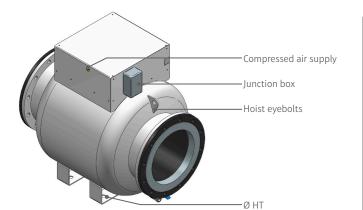
Mounting distances for QV II with St2					
Diameter nominal	DN 80-DN 200	DN 250			
Min. mounting distance	8	on request			
Max. mounting distance	20	on request			

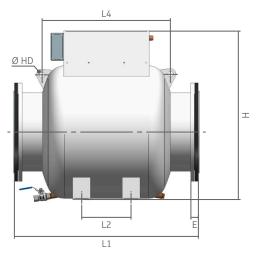


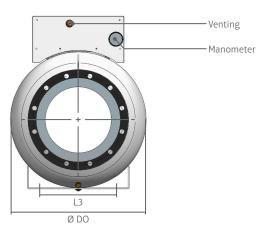


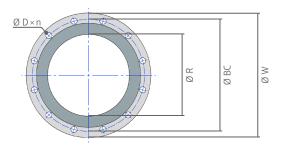
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Flange diameter

Dimensions QV III						
		EXKOP® QV III - 12	EXKOP® QV III - 16	EXKOP® QV III - 20	EXKOP® QV III - 24	
Diameter nominal	DN	300	400	500	600	
Ø HT	[mm]	22	22	22	22	
Ø HD	[mm]	25	25	25	25	
Length L1	[mm]	825	1125	1370	1730	
Length L2	[mm]	224	500	679	971	
Length L3	[mm]	340	400	450	450	
Length L4	[mm]	580	640	1035	1333	
Height H	[mm]	780	930	1080	1180	
E	[mm]	45	45	45	45	
Ø DO	[mm]	600	750	900	1000	
Ø D×n	[mm]	22×12	26×16	26×20	30×20	
Ø R	[mm]	292	392	492	592	
Ø BC	[mm]	400	515	620	725	
øw	[mm]	445	565	670	780	
Weight	[kg]	194	391	605	798	

Other dimensions available on request.

Mounting distances for QV III with St1						
Diameter nominal DN 300 DN 400 – DN 600						
Min. mounting distance	7	8				
Max. mounting distance	20	20				

Mounting distances for QV III with St2					
Diameter nominal DN 300 DN 400 – DN 600					
Min. mounting distance	7	8			
Max. mounting distance	20	12			



