

April 2010

## TROTTLER VALVE - TRANSMISSION

### DESCRIPTION

The **BLE** trottle valve functions as a bypass in transmission pressure reducing stations up to 100 bar.

The **BLX** is equipped with an integral slam shut valve, type OS2, used to cut off pressure flow in the case of outlet over pressure.

### OPERATION

#### • BLE or BLX

The **BLE** trottle valve is a balanced plug type, opened by pressure flow.

The opening control is manually performed by a torque handwheel (approx. 4 N.m).

1 handwheel turn = 2 mm travel

Tight shutoff is achieved by a nitrile disc plug situated on the valve plug.

The disc plug and orifice are easily replaced.

The opening control is progressive at the start and then linear.

A rotation of 1/8 tour after contact with the valve plug / orifice is sufficient to assure tight shutoff.

#### • SLAM SHUT (BLX)

The pressure of the zone to be protected (generally the pipeline outlet side of the regulator and after the slam shut) reacts on the safety manometric box (BMS).

If the pressure rises above the set range, the release relay frees the valve plug. Due to the action of the closing spring and the fluid (trying to close), the valve plug closes on the orifice.

The gas flow is obstructed until the fault has been corrected and the mechanism box manually rearmed.

Equal pressure balance on inlet and outlet sides are necessary to reopen the valve plug.

The mechanism box is rearmed after opening the internal bypass.

Rearming and balancing are achieved at the same time.

The **BLE** and **BLX** are in conformity with the Pressure Equipment Directive PED 97/23/EC and are classified in category IV.



**Type BLX**

### Main Characteristics

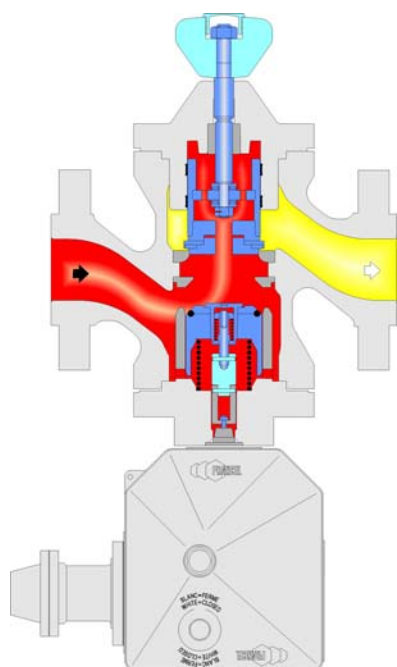
<b>Operating pressure</b>	LCC body	100 bar
	WCB-20 body	96.7 bar
<b>Operating temperature</b>	LCC body	- 30 / 71 °C
	WCB-20 body	- 20 / 71 °C
<b>Inlet / Outlet DN</b>		25, 50, 80
<b>Slam shut accuracy</b>		AG 2.5
		AG 5 (piston)

## CHARACTERISTICS

Throttle Valve Information					OS2 Slam Shut Information						
Type	DN	Qf	Cg	C1	Type	Size	PMS Box (bar)	Spring wire Ø (mm)	Max. only (bar)		
									Max. low pt	Max. high pt	
BLX	25 50 80	230 970 2150	450 1880 4170	35	Diaphragm	162	5	2 - 6.5	4.5 - 6.5	0.015 - 1.2	0.035 - 2.3
						071	16			2 - 8	5.1 - 16
					Piston	027	100	5.5 and 6.5	16 - 22	22 - 40	
						017			40 - 55	55 - 100	
Bellows	236	35	5	11 - 16	22 - 35						
	315	72		35	72						
BLE	25	230	450	35							
	50	970	1880								
	80	2150	4170								

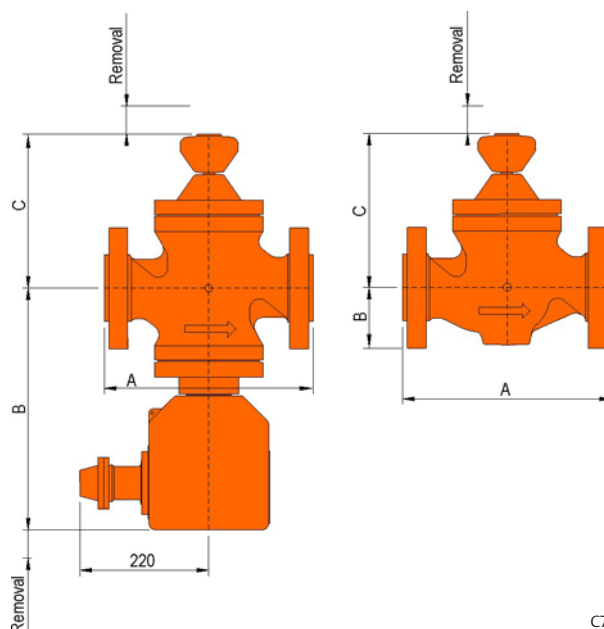
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## OPERATIONAL SCHEMATIC



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## DIMENSIONS AND WEIGHTS



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## MATERIAL

Body	Steel
Bonnet	Steel
Screw holder	Bronze
Orifice	Stainless steel
Valve plug	Steel
Disc plug	Nitrile

Type	DN	Dimensions				Weight (kg)
		A	B	C	Removal	
BLE without slam shut	25	210	62	183	55	14
	50	286	78	196	75	26.5
	80	337	105	223	95	51
BLX with slam shut	25	210	315	196	55	22
	50	286	331	213	75	40
	80	337	366	241	95	65

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### Natural Gas Technologies

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For further information visit [www.emersonprocess.com/regulators](http://www.emersonprocess.com/regulators)

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