

LCS 500 SMART MODULATING LEVEL CONTROL

In steam boilers LCS 500 Smart Modulating Level Control System is used where unavoidable fluctuations and sudden changes in the consumption of steam and high steam quality. Particularly to be preferred at high steam production capacity.

LCS 500 Smart Modulating Level Control System consists of LP 500 Level Probe, LC 540 Smart Level Controller and LCV Level Control Valve.

Level is maintained within the control band defined by two preset limits. Additionally low and high levels are provided for safety-related requirements.

- Modbus RS 485 communications.
- Advanced safety with Alarm Test and Alarm Reset.
- Different level inputs.
- 2-way or 3-way boiler feed water valve options.



Technical Data

Nominal Pressure	: PN 40
Max. Operating Temperature	: 238 °C
Max. Operating Pressure	: 32 bar
Connection	: 1/2", BSP - Screwed
Length	: 500 mm to 1.500 mm.
Control Signals	: Modulating level control, Low alarm and High alarm
Output	: Three step valve control, 4-20 mA level output, two relays for low & high alarms
Control Types	: PID, Modulating or adjustable on-off
Communications	: Modbus - RS 485
Functions	: Alarm Test and Alarm Reset

Types

LC 540 Controller

Type	Features
LC 540	Three step valve control+ 4-20 mA level output
LC 540-D	Three step valve control+ 4-20 mA level output 4-20 mA PID control output
LC540-DA	Three step valve control+ 4-20 mA level output 4-20 mA PID control output + 4-20 mA level input

LPA Pre Amplifier

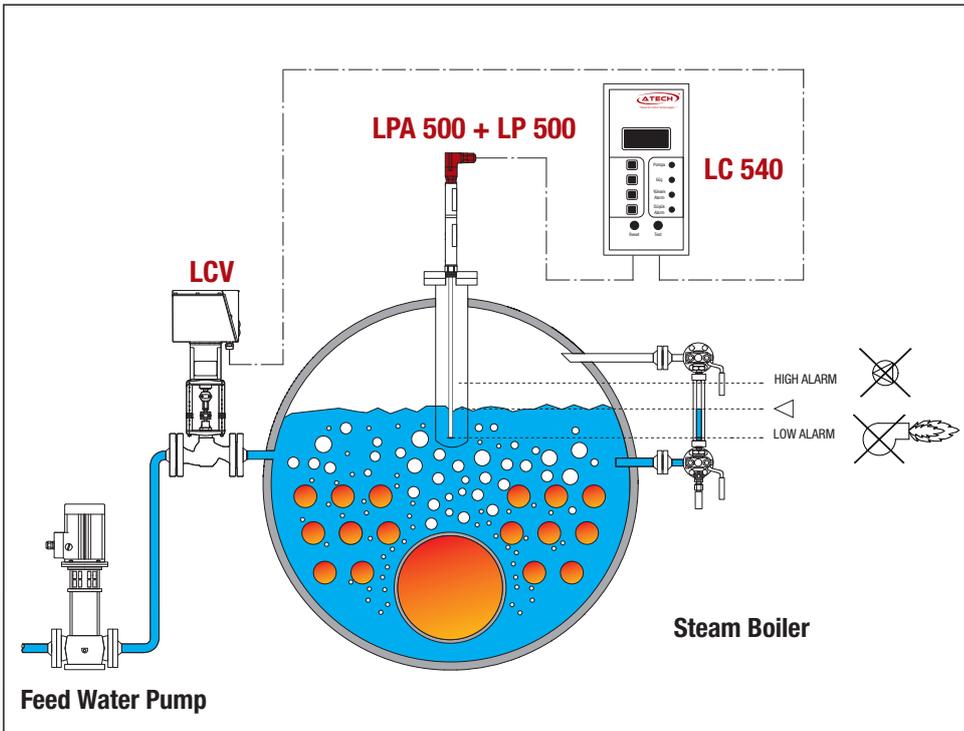
Type	Features
LPA 500	0-6 Vdc level output
LPA 420	4-20 mA level output

LP 500 Level Probe

Type	Length	Connection
LP 550	500 mm	1/2", BSP - Screwed
LP 560	600 mm	1/2", BSP - Screwed
LP 570	700 mm	1/2", BSP - Screwed
LP 580	800 mm	1/2", BSP - Screwed
LP 590	900 mm	1/2", BSP - Screwed
LP 510	1.000 mm	1/2", BSP - Screwed
LP 511	1.100 mm	1/2", BSP - Screwed
LP 512	1.200 mm	1/2", BSP - Screwed
LP 515	1.500 mm	1/2", BSP - Screwed

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Applications



When the boiler water level drops below the set low level alarm point, a low level alarm occurs and the burner safety chain circuit is interrupted.

If the boiler water level rises enough to touch the set high water level alarm point, a high water level alarm occurs, and depending on the boiler control panel setup, the boiler feed water pump or burner supply may be turned off.

Level alarms can be checked at specific time intervals with Alarm Test function to test the operation of the burner protection circuit.

Safer operation of the steam boiler can be ensured with the Alarm Test and Alarm Reset functions.

LCV Boiler Feed Water Control Valve

Valve Type	Pressure Rating	Type	Valve Type	Pressure Rating	Type	Connection	Kvs
2 way	PN 16	LCV 5125	3 way	PN 16	LCV 3125	DN 25, Flanged	2, 4, 6.3, 10
		LCV 5132			LCV 3132	DN 32, Flanged	6.3, 10, 16
		LCV 5140			LCV 3140	DN 40, Flanged	10, 16, 25
		LCV 5150			LCV 3150	DN 50, Flanged	16, 25, 40
		LCV 5165			LCV 3165	DN 65, Flanged	25, 40, 60
		LCV 5225			LCV 3225	DN 25, Flanged	2, 4, 6.3, 10
	PN 25	LCV 5232	LCV 3232	DN 32, Flanged	6.3, 10, 16		
		LCV 5240	LCV 3240	DN 40, Flanged	10, 16, 25		
		LCV 5250	LCV 3250	DN 50, Flanged	16, 25, 40		
		LCV 5265	LCV 3265	DN 65, Flanged	25, 40, 60		
		LCV 5425	LCV 3425	DN 25, Flanged	2, 4, 6.3, 10		
		LCV 5432	LCV 3432	DN 32, Flanged	6.3, 10, 16		
	PN 40	LCV 5440	LCV 3440	DN 40, Flanged	10, 16, 25		
		LCV 5450	LCV 3450	DN 50, Flanged	16, 25, 40		
		LCV 5465	LCV 3465	DN 65, Flanged	25, 40, 60		