



P01	P02	P03	P04	P05	P07	P08	M_06	WE_01	WE_02
Feed in Pump	Base Pump	Inoculum Pump	Feed out Pump	Sampling Pump	Fill Pump	Drain Pump	Agitator	Weight base bag	Weight Bioreactor
0-360 RPM	0-360 RPM	0-360 RPM	0-360 RPM	0-360 RPM	0-160 RPM	0-160 RPM	0-450 RPM	0-60 kg	0-180 kg
48VDC	48VDC	48VDC	48VDC	48VDC	230VAC/208VAC	230VAC/208VAC	48VDC		
156W	156W	156W	156W	156W	250VA	250VA	400W		
3.25A	3.25A	3.25A	3.25A	3.25A	1.1A/1.2A	1.1A/1.2A	8.33A		

FILL PUMP IS AN OPTION

DRAIN PUMP IS AN OPTION

- NOTES:
- 1) SENSOR SELECTION FOR PROCESS VALUE.
  - 2) TEMPERATURE BEFORE FIXED BED 2 - FEEDBACK POLESTAR.
  - 3) MIDDLE ASSEMBLY - GAS LINE BOX.
  - 4) RESETABLE THERMOSWITCHES.
  - 5) TEMPERATURE CONTROL UNIT - EXTERNAL UNIT.
  - 6) PH/DO MEASUREMENT.

**SYMBOL LEGEND**

FLEX HOSE	GENERAL PIPING LINE	ELECTRICAL SIGNAL	SOFTWARE LINE	ELECTROMAGNETIC SIGNAL AND FIBER OPTIC	OPTIONAL ITEM	PINCH VALVE	SAFETY VALVE	CONTROL VALVE	EMERGENCY SHUT DOWN	SOFTWARE INTERLOCK	PANEL MOUNTED	NORMALLY ACCESSIBLE TO OPERATOR	FIELD MOUNTED	NORMALLY INACCESSIBLE TO OPERATOR	SENSOR	TRANSMITTER	PERISTALTIC PUMP	MOTOR	HEATER	NON RETURN VALVE	LOAD CELL	SCALE	HEAT EXCHANGER	SELECTION (NORMALLY ACCESSIBLE TO OPERATOR)	HARD WIRED INTERLOCK SEE NOTE 4	RELIEF VALVE
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				CHECKED BY		22/06/2018		DRAWING No.	
				APPROVED BY		22/06/2018		SHEET ISS.	
								ICL500CSSSIP_P&ID 1/1 1.01	
								Description: Change to commercial name	