

# E.T.C

[WWW.AZARSAM.CO](http://WWW.AZARSAM.CO)

Products Specification



Azarsam Instrument Co. (ETC brand name) has established in 1993. It is one of the pioneer Iranian companies in the field of manufacturer of control valves, level controllers, and steam-line automatic control equipment. Azarsam Instrument Co. produces around 30 types of products in different models and sizes comprising. Control valves (temperature control, pressure, debi and valve bellows). Level controllers (magnetic level gauge, level switch, level transmitter, pressure switch, and flow switch). Steam traps (floater thermostatic, thermodynamic, air-trap, air-vent, and vacuum breaker). Gradually, we are developing our technology and technical infrastructure investment as well as production capacity, both for the quality of enterprising and full of initial purposes and take a crucial step toward our country's self-sufficiency in producing the equipment.

Our company has employed more than 100 personnel and owns an overall amount of 10000 square meter of land. For more information, you can see this site: [WWW.AZARSAM.CO](http://WWW.AZARSAM.CO)

Azarsam Instrument Co. has got different certificates like:

- 1- Iranian Petroleum Industries equipment manufacturers association.
- 2- Iranian Society of Instrument and Control Engineering.
- 3- Energy Petroleum Institute.
- 4- Certificate of compliance. (CE) from Ente certification machine company.
- 5- ISO 9001-2015
- 6- Certificate of standard incentives from the institute of standards and industrial research of Iran for Bellows Valves the number of 668465699 in 1399 year.
- 7- Certificate of standard incentives from the institute of standards and industrial research of Iran for Pneumatic control valves the number of 669340401 in 1401 year.
- 8- The member of Tehran Chamber of commerce, industries, mines and agriculture.
- 9- The member of Vendor List like National Iranian Gas Company, National Petrochemical Compnay, National Iranian Oil refining and Distribution Company.
- 10- Received The legal confirmation from government parts like national Iranian Gas company, Iranian offshore oil company, Shazand oil refinery, Kermanshah oil refining company, Machine Sazi Arak, Arak Petrochemical Corporation, Razi Petrochemical Corporation, and ....
- 11- Incentive standard certification from Iran national standards organization (INSO) for Manual Globe Valve the No: M668465699 in 1399 Year.
- 12- To register the products in Iran Code.

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Magnetic Level Switch			Magnetic Level Gauge		
<b><u>MLS 20-06 / MLS 20-08</u></b>			<b><u>MLG 20-33 / MLG 20-44 / MLG 20-55</u></b>		
Max working pressure	16 bar		Max working pressure	200 bar	
Max working temperature	150 °C		Max working temperature	555 °C	
Length of product	0.3 ~ 6m		Length of product	0.3 ~ 18m	
Installation	Screwed/Flange	Installation	Screwed/Flange		
Body and floater material	SS304 / SS316	Body and floater material	SS304/SS316/Ti/PP/UPVC		
<p><b>Function:</b> The level switch is useful device to control level of liquids. This device is used in water, fuel, acid, De aerator tanks and condensate, under pressure caldrons, water treatment systems etc. This device can produce like EX. It is mounted from side or above of reservoirs.</p>		<p><b>Function:</b> Magnetic Level gauge is a useful device to illustrate and control of liquids. This device is used in water, fuel, acid, chemical, tanks and in steam, hot water caldrons, oil, gas, petrochemical and pharmaceutical industry. We can present dry contact like SPDT or EX. The level transmitter can be installed on this device and sending out put current (4 .... 20 mA). This level gauge may be manufactured for interface level reading. The magnetic level gauge has various types of installation. (Side-side, side-bottom, top-side, top-bottom, top-mounted).</p>			
Magnetic Level Transmitter			Level Switch Probe		
<b><u>MLT 20-21 / MLT 20-22</u></b>			<b><u>LSP 20-24</u></b>		
Max working pressure	25 bar		Max working pressure	40 bar	
Max working temperature	150 °C		Max working temperature	239 °C	
Length of product	0.3 ~ 4m		Length of product	2 m	
Installation	Screwed/Flange	Installation	Screwed/Flange		
Body and floater material	SS304/SS316	Body and rod material	SS 304		
<p><b>Function:</b> MLT 20-21 level transmitter is used for controlling the liquid level in a tank. MLT 20-21 may be used in petrochemical industry, refineries, power plants, industrial projects, and water treatment facilities, particularly in Acid tanks, pressure vessels, condensate tanks, deaerators, and fuel/water tanks. Inside the tube generate a (4 ... 20mA) amperage or (0 ... 10V) voltage in the output. This device can produce like EX. It is mounted from side or above of reservoirs.</p>		<p><b>Function:</b> LSP 20-24 is used for alarm and on/off liquid level control applications in boilers, pressure vessels, and other types of tanks. LSP 20-24 is connected to a boiler or tank by means of a threaded or flanged connection.</p>			

Magnetic Level Switch		Magnetic Level Switch	
<u>MLS-20-04</u>		<u>MLS 20-14</u>	
			
Max working pressure	10 bar	Max working pressure	25 bar
Max working temperature	150 °C	Max working temperature	250 °C
Installation	Special Flange	Installation	Special Flange
Body and rod material	SS 304	Body and rod material	SS304
<p><b>Function:</b> Level switch type MLS 20-04 is useful to control device level of liquids. This device is used in water, fuel, acid, De aerator tanks and also condensate, under pressure caldrons, water treatment systems and etc. The switch of MLS 20-04 is SPDT. MLS 20-04 has 2 types stainless steel and carbon steel. The MLS 20-04 is provided with flange.</p>		<p><b>Function:</b> Level switch type MLS 20-14 is useful device to control level of liquids. This device is used in water, fuel, acid, De aerator tanks and also condensate, under pressure caldrons, water treatment systems. The switch of MLS 20-14 is SPDT. MLS 20-14 has two types stainless steel and carbon steel. The MLS 20-14 is provided with flange.</p>	
Mercury Level Switch		Mechanical Level Switch	
<u>MLS 20-12</u>		<u>MLS 20-02</u>	
			
Max working pressure	16bar	Max working pressure	6bar
Max working temperature	220 °C	Max working temperature	100 °C
Installation	Screwed	Installation	Screwed
Body and rod material	GGG40.3	Body and rod material	SS304/MS58
<p><b>Function:</b> Level switch type MLS 20-12 is useful device to control level of liquids. This device is used in water, fuel, acid, De aerator tanks and also condensate, water treatment systems. The switch of this model is Mercury.</p>		<p><b>Function:</b> Mechanical Level switch type MLS 20-02 is useful device to control level of liquids. This device is used in water, fuel, acid, De aerator tanks and condensate and water treatment systems. The switch of this model is SPDT.</p>	



Liquid Flow Switch			Pear Level Switch		
<b><u>LFS 20-71 / LFS 20-72</u></b>			<b><u>PLS 20-10</u></b>		
Max working pressure	16 bar		Max working pressure	4 bar	
Max working temperature	100/150°C		Max working temperature	50 °C	
Installation	Screwed		Length	3 m	
Blade	SS 304	Body and cable material	PVC		

**Function:**

Liquid flow switch type LFS is useful device to switch in liquid line. This device is used in heating and cooling system, water supply systems pipelines, cooling systems generator, cooling chiller output etc. The switch of this model is SPDT.

**Function:**

Level switch type PLS 20-10 is useful device to control level of liquids. This device is used in water, acid, chemical tanks and also in water-pump station, concrete reservoir, sinkhole and water wells. The switch of this model is SPDT. The length of level switch is between 3 to 50 meter.

Control Pressure Switch		Control Pressure Switch	
<b><u>CPS 20-62</u></b>		<b><u>CPS 20-61</u></b>	
			



Max. pressure working range	15 ... 145 psi	Max. pressure working range	15 ... 145 / 20 ... 300 psi
Max. .... P	15 ... 60 psi	Max. .... P	10 ... 22 / 20 ... 50 psi
Max. working temperature without loop	70 °C	Max. working temperature without loop	110 °C
Connection type	Screwed	Connection type	Screwed

**Function:**

Pressure switch type CPS 20-62 is useful device to control amount of pressure inside systems. It is used in steam boilers, under pressure lines and etc. The switch of this model is SPDT.



**Function:**

Pressure switch type CPS 20-61 is useful device to control amount of pressure inside systems. It is used in steam boilers, under pressure lines and etc. the pressure switch is produce in 2 ranges: 1.... 10 bar and 2.... 20 bar. The switch of this model is SPDT.

Electric Control valve			Pneumatic Control Valve		
			<b>NCV 10-11</b>		
Control signal	4 ... 20 mA		Max. working pressure	PN16-25-40/150-300#	
Voltage feed	220V AC		Max. working temperature	-10 ~ 220 °C	
Size	DN15~150/1/2"~ 6"		Size	DN15~150/1/2"~ 6"	
Connection type	Flange		Connection Type	Flange	
Body material	GG25/GGG40.3 /SS316/A216WCB	Body Material	GG25/GGG40.3 /SS316/A216WCB		



**Function:**  
This valve is a useful device to control flow on the set point range in different lines. On/Off, 4 .... 20mA, 0 ... 10 Volt.  
NCV 10-11 is used for various industrial and special sites which don't have compressed air and also steam, liquid or non-flammable gases lines. Body and bonnet of this product is for our company but the actuator is for Samson factory.

**Function:**  
This valve is a useful device to control flow on the set point range in the lines. (on/off) PCV 10-11 is used for various industrial and special sites which have compressed air and also steam, liquid or non-flammable gases lines. This valve according to ANSI FCI have two types of seat: metal sealing – soft sealing.  
In the case, that we have high temperature or erosion in the flow you can use isolation with bellows. In addition, you can use hand wheel on actuator. If valve is used to gradually control flow rate, firstly regulator air should get inside I to P and then it will conduct the air to actuator. Also, if you need you can install switch limit and regulator filter.

Excess Pressure Control Valve			Pressure Control Valve		
			<b>PCV 10-35</b>		
Max. working pressure	PN16-25-40/150-300#		Max. working pressure	PN16-25-40/150-300#	
Max. working temperature	300 °C		Max. working temperature	300 °C	
Size	DN125&150/6"		Size	DN125&150/6"	
Set pressure	1 ~ 10 bar		Set pressure	0.14 ~ 8.6 bar	
Connection type	Flange		Connection type	Flange	
Body material	GG25/GGG40.3/ SS316/A216WCB		Body material	GG25/GGG40.3/ SS316/A216WCB	



**Function:**  
Excess Pressure Control Valve is a useful device to fix pressure on an adjusted set point. 10-35 valve is usable for liquid, non-flammable gases and steam lines. System of controlling 10-35 is by pass self-operated.

**Function:**  
pressure control valve is a useful device to fix pressure on an adjusted set point. 10-33 valve is usable for liquid, non-flammable gases and steam lines. System of controlling 10-33 is by pass self-operated.

Pressure Control Valve			Excess Pressure Control Valve		
<b>PCV 10-23</b>			<b>PCV 10-73</b>		
Max. working pressure	PN16-25-40/150-300#		Max. working pressure	PN16-25-40/150-300#	
Max. working temperature	350 °C		Max. working temperature	350 °C	
Set pressure	0.8 ... 16 bar		Set pressure	0.8 ... 16 bar	
Size	DN15~100		Size	DN15~100	
Connection type	Flange		Connection type	Flange	
Body material	GG25/GGG40.3 /SS316/A216WCB	Body material	GG25/GGG40.3 /SS316/A216WCB		





**Function:**  
 pressure control valve is used to counteract excess pressure of a system on the adjust set point. This device is made based on the DIN and ANSI standards. PCV 10-23 valve is usable for liquid, non-flammable gases and steam lines. If the customer needs to high range. We can present metal actuator with bellows in 2 ranges. 10 ~ 22 bar and 20 ~ 28 bar. If the customer order to us, we can produce all of the valves with body steel.

**Function:**  
 Excess Pressure Control Valve is used to counteract excess pressure of a system on the adjust set point. This device is made based on the DIN and ANSI standards. PCV 41-23 valve is usable for liquid, non-flammable gases and steam lines. If the customer needs to high range. We can present metal actuator with bellows in 2 ranges. 10 ~ 22 bar and 20 ~ 28 bar. If the customer order to us, we can produce all of the valves with body steel.





Pressure Control Valve			Manual Globe Valve		
<b>PCV 10-09</b>			<b>MGV 40-16</b>		
Max. working pressure	PN16		Max. working pressure	PN16	
Max. working temperature	220 °C		Max. working temperature with bellows	350 °C	
Set pressure	0.8 ~ 16 bar		Max. working temperature with packing	220 °C	
Size	DN15 ~ 80		Size	DN15~250	
Connection type	Flange		Connection type	Flange	
Body material	GG25	Body material	GGG40.3		

**Function:**  
 Self-operated pressure control valve is a useful device to fix pressure of line an adjusted set point. This valve is useful for steam lines.

**Function:**  
 Manual Globe Valve type 40-16 is used for adjusting the flow rate within the valve output range, as well as opening/closing the process pipeline. It can be used for steam, thermal oil, or other non-combustible gases and liquids.

Thermostatic Control Valve			Thermostatic Control Valve		
<b><u>TCV 10-01</u></b>			<b><u>TCV 10-04</u></b>		
Max. working pressure	PN16		Max. working pressure	PN16-25-40/150-300#	
Max. working temperature with bellows	220 °C		Max. working temperature with bellows	350 °C	
Sensor temperature adjustable	-10 ... 150 °C		Sensor temperature adjustable	-10 ... 150 °C	
Size	DN15~80		Size	DN15~150	
Connection type	Flange		Connection type	Flange	
Body material	GG25		Body material	GG25/GGG40.3/SS316/A216WCB	
<p><b>Function:</b> Self-operated temperature controller is a useful device to control temperature of pipeline and tanks in cooling and heating systems. Like controlling temperature: de aerator and air conditioner. This valve is normally opened and when the temperature increase, it is closed gradually. This valve has manual sensor and analogue sensor. When you need to control air temperature of a fluid inside a channel, you can use this piece. This valve has 1 ... 25 bar. The length of this valve is 3 meter. If the customer wants more length, we can produce it.</p>		<p><b>Function:</b> Self-operated temperature controller is a useful device to control temperature of pipeline and tanks in cooling and heating systems. Like controlling temperature: de aerator and air conditioner. This valve is normally opened and when the temperature increase, it is closed gradually. This valve has manual sensor and analogue sensor. When you need to control air temperature of a fluid inside a channel, you can use this piece. This valve has 12 ... 25 bar. The length of this valve is 3 meter. If the customer wants more length, we can produce it.</p>			
Thermodynamic Steam Trap			Pressure Reducing Valve		
<b><u>TDS 30 – 42</u></b>			<b><u>PRV 10-40</u></b>		
Max. working pressure	42bar		Max. working pressure	25 bar	
Max. working temperature with bellows	400 °C		Max. working temperature with bellows	210 °C	
Size	½” ~ 1”		Size	½” ~ 1”	
Connection type	Screwed/Socket Welded		Connection type	Screwed	
Body material	A743 Gr.CA40F	Body material	GGG40.3		
<p><b>Function:</b> Steam traps used to remove condensate from steam lines. This device used in water, fuel, acid, chemical, tanks and in steam, hot water caldrons, oil, and gas, petrochemical and pharmaceutical industry.</p>		<p><b>Function:</b> Pressure reducing valve by adjusting spring force rate and apply to plug and bellows surface in one side and entering output pressure on the plug and bellows surface in another side, the output volume is fixed in specific rate and in this way, the control of output pressure is possible. (0.14 .... 8.6 bar)</p>			



Floater Thermostatic Steam Trap		Floater Thermostatic Steam Trap	
<u>FTS 30-44</u>		<u>FTS 30-10 / FTS 30-14</u>	
			
Max. working pressure	32bar	Max. working pressure	16bar
Max. working temperature with bellows	250 °C	Max. working temperature with bellows	220 °C
Size	½” ~ 2”	Size	½” ~ 2”
Connection type	Flange	Connection type	Flange/Screwed/Socket Welded
Body material	A216 WCB	Body material	GGG40.3
<b>Function:</b> Steam traps used to remove condensate from steam lines. This device used in water, fuel, acid, chemical, tanks and in steam, hot water caldrons, oil, and gas, petrochemical and pharmaceutical industry.		<b>Function:</b> Steam traps used to remove condensate from steam lines. This device used in water, fuel, acid, chemical, tanks and in steam, hot water caldrons, oil, and gas, petrochemical and pharmaceutical industry.	
Float Air Vent		Float Air Trap	
<u>FAV 30-13</u>		<u>FAT 30-12</u>	
			
Max. working pressure	16bar	Max. working pressure	16bar
Max. working temperature with bellows	250 °C	Max. working temperature with bellows	250 °C
Size	½” ~ 1”	Size	½” ~ 1”
Connection type	Flange/Screwed	Connection type	Flange/Screwed
Body material	GGG40.3	Body material	GGG40.3
<b>Function:</b> There are usually air or gases in the liquid line and system, this air or gases causes to disturbance of liquid current , equipment corrosion , inappropriate operation of pumps or do not let system fulfill with liquid .it should be evacuated from system and this is air vent function. FAV 30-13 is specifically designed for hot or cold water or other similar systems. This kind of air vent can be serviced or maintained easily without any separation from system or line .A floater in side of trap opens or closes orifice by using connected lever which is moved the small shot, according to the air measure. Opening of orifice is gradually and transient alteration does not effect on it. This type of air vent is more useful in the system which gas or air is produced permanently and also used in thermal and cryogenic energy transfer system or other similar case.		<b>Function:</b> In air and compressed gasses system, humidity of air and gases is usually converted to condensate and flocked in the system. This condensate causes to inappropriate operation, equipment corrosion and system damage too, so it should be evacuated immediately and it is air trap function. FAT 30-12 Float air trap can be serviced or maintained easily without any separation from pipeline. According to the measure of condensate. Floater ball which there is in air trap, is floated and moves the connected lever and this lever changes the position of small shot .it gradually open or close the orifice and transient alteration does not effect on it. This kind of trap is used in gases, compressed air line to evacuating variable measure of condensate.	

Strainer T Flanged		Strainer Y Flanged	
<u>STF 40-16</u>		<u>SYF 40-16</u>	
			
Size	DN 200 & DN250	Size	DN 15 ~ DN150
Max. working pressure	PN16	Max. working pressure	PN16
Max. working temperature	-10 ~ 350 C°	Max. working temperature	-10 ~ 350 C°
Connection type	Flanged	Connection type	Flanged
Body material	GGG40.3	Body material	GGG40.3
<p><b>Function:</b> Strainer stays on the flowing of liquid, steam, hot oil and etc. strainer protect the line from solid form by utilizing a perforated, mesh or wedge wine staining element. The most common range of strainer is size DN200 &amp; DN250 with work pressure PN16 and Maxi. Working temperature 350°C and according to DIN standard.it use in different industrial sites.</p>		<p><b>Function:</b> Strainer stays on the flowing of liquid, steam, hot oil and etc. strainer protect the line from solid form by utilizing a perforated, mesh or wedge wine staining element. The most common range of strainer is size DN15 to DN150 with working pressure PN16 and Maxi. Working temperature 350°C and according to the DIN standard.it uses in different industrial sites.</p>	
Brass Vacuum Breaker		Stainless Steel Vacuum Breaker	
<u>BVB 40-16</u>		<u>SVB 40-10</u>	
Max. working pressure	16bar	Max. working pressure	25bar
Max. working temperature	260°C	Max. working temperature	400 °C
Size	½"	Size	½"
Connection type	Screwed	Connection type	Screwed
Body material	MS58	Body material	SS304
<p><b>Function:</b> BVB 40-16 Brass vacuum breaker is useful device to remove vacuum and to prevent changing in the form of system.</p>		<p><b>Function:</b> SVB 40-10 Stainless Steel vacuum breaker is useful device to remove vacuum and to prevent changing in the form of system.</p>	

## Disk Check Valve

### DCV 40-40



Size	DN 15 ~ 100
Nominal Pressure	PN16 ~ PN40
Working Temperature	-10 ~ 350 °C
Connection Type	Flanged (DIN PN16/PN40) Flanged (ANSI #150/#300)
Sealing Type	Metal sealing

#### **Function:**

It can be used for steam, thermal oil, or other non-combustible gases and liquid for preventing flow in the reverse direction. The pressure of flow cause to goes up the valves and cause to enter the liquid and gas. Until, the pressure behind of the gate is more than of it the valve is open and the flow can go through the line If the pressure behind of the gate is lower than it the weight of gate, back material pressure, and spin power prevent to close the valve. However, we can use in high temperature because the material of valve is stainless steel.