



GUIDANT

# INVALCO

**Manufacturing instrumentation and controls for the process  
and petroleum industries worldwide**



# Guidant's INVALCO Product Offering

For over 60 years, Guidant's INVALCO product group has been manufacturing instrumentation and controls for the process and petroleum industries worldwide. Products groups include liquid/gas; turbine, positive displacement, gear and insertion meters with associated electronics; diaphragm-operated control valves; level controls; water-in-oil and oil-in-water analyzers.

## Analytical Instruments

INVALCO analytical instruments offer accurate, reliable readings to detect concentrations of water and emulsified water in a crude oil stream.

## Controls and Miscellaneous

Experience, service, and performance are what you can expect from INVALCO—the brand that has a proven record for quality and dependability.

## Flow Measurement

INVALCO has been a pioneer in the use of tungsten carbide, a bearing material for the stringent demands of the petroleum industry. We offer a full line of industrial and sanitary turbine meters to suit your measurement needs. Whether measuring anhydrous ammonia or deionized water, natural gas, or compressed air, we have you covered.

## Level Controls

Designed with the end user in mind, INVALCO's level controls are trusted to be dependable, easy to work with, and easy to maintain. The level controls range from simple point-type to continuous electronic level transmitters for industrial and sanitary applications.

## Micro Valve®

Since introduction in 1956, INVALCO's Micro Valve has been the best valve to solve liquid, air, and gas service design problems. Other miniature valves leak when flow is redirected from one port to another. With Micro Valve, flow is instantly redirected so there is no leakage.

## Pressure Switches and Other Controls

The consistency of INVALCO's mechanical design provides years of reliable and accurate service. Innovations in our electronics design refinements and manufacturing advances keep these products on the leading edge of technology.

## Totalizers, Flow Computers, and Transmitters

INVALCO offers a wide variety of readout equipment. Our flow totalizers and rate indicators are inexpensive and easy to use for a broad range of applications.

## Valves

INVALCO valves are the industry standard when rugged and reliable dump/control, fuel control, back pressure and pressure relief valves are required. If dumping large volumes of fluid quickly at low- or high-pressures or to control blending is needed, our valves meet the application. Most valves are NACE adaptable, making them easily modified for sour service. Manufactured with hammer union construction guarantees reliability and reduces downtime for repairs.

# Analytical Instruments

## Model WCM 7300M Temperature Compensated Water Cut Monitor

## Model WCM 7300ME Temperature Compensated Water Cut Monitor with Insertion Probe

Model Water Cut Monitor (WCM) 7300M is designed to provide the highest possible sensitivity, resolution, and accuracy for water content determination in crude oil, other hydrocarbons, or other low dielectric liquids from a maximum of 25% to levels below 1,000 parts per million (ppm). In oil and natural gas (condensate) production, water cut and sediment and water (S&W) measurements are significantly improved with the WCM 7300M technology. Enhanced digital signal processing and full product temperature compensation are two of the technological advancements used by this device. Probe sizes from 2- through 12-inch are available. 4-20 mA and 0-5 volt outputs are available for remote readout. Water cut, process temperature, or probe electrical value can be selected for viewing without removing conduit cover by use of a supplied magnet to operate an internal reed switch. For additional information, see [Model WCM 7300M Specifications](#) (SSIN016) and [Model WCM 7300ME Specifications](#) (SSIN017).

### Features and Benefits

- Intrinsically safe to Class I, Div. 1, Groups A,B, C, and D CUL/UL
- Displays rate and accumulated total
- Approvals are UL/CUL explosionproof certificate for Class I, Div. 1, Groups C and D or Class II, Groups E, F, and G hazardous locations
- Enhanced digital signal precession
- Full product temperature compensation
- Probe sizes from 2- to 12-inch are available
- WCM 7300M will provide a 0-5 volts direct current (VDC) output for use with Model 4728 sediment and water S&W monitor where remote monitoring is desirable
- NACE adaptable and can be modified for use in sour service

### Applications

- Lease Automatic Custody Transfer (LACT) units: Detect and provide relay contact closure that can be used to reroute oil that has excess water cut
- Pipeline loading: Monitor transfer of petroleum/condensate products from loading facilities
- Dehydration equipment: Determine and enhance equipment efficiencies by monitoring the product and indicating water content
- Fuel oil monitoring: Determine contamination of fuel oil by condensation or other external factors before entry to engine
- Storage and treating facilities: Monitoring and early detection of undesirable conditions, as well as interface detection during dewatering of storage tanks



## Models 4528, 4528EZ, and 4728 Monitors

### CX-645 Probe Water Cut Monitors

Model 4728 Water Cut Monitor, in conjunction with a Model 4528 Detector and a Model CX-645 Capacitance Probe, is a continuous online monitor of percent water in a flowing crude oil emulsion stream. This unit displays percent of water in various ranges from 0-5% up to and including 0-20% on a digital liquid-crystal display (LCD) indicator. In addition, Model 4728 provides a 4-20 milliampere (mA) analog output proportional to input range, and a field-adjusted, time-delayed, limit relay for valve control or alarming. For additional information, see [Models 4528, 4528EZ, and 4728 Monitors CX-645 Probe—Water Cut Monitors Specifications](#) (SSIN015).

#### Features and Benefits

- Explosionproof mounting on the turbine meter
- Real-time display and retransmission of water cut monitor allows for quick response to upset conditions for downstream controls
- Adjustable delay of relay closure prevents nuisance alarms and “actuator overload”
- Direct analog output from Model 4528 Detector, 4-20 mA signal is available from the probe without the need to include Model 4728 monitor
- NACE adaptable
- Approvals are UL/CUL explosionproof certificate for Class I, Div. 1, Groups C and D or Class II, Groups E, F, and G hazardous locations

#### Applications

- LACT units: Detect and provide relay contact closure that can be used to reroute oil that has excess water cut
- Pipeline loading: Monitor transfer of petroleum/condensate products from loading facilities
- Dehydration equipment: Determine and enhance equipment efficiencies by monitoring the product and indicating water content
- Fuel oil monitoring: Determine contamination of fuel oil by condensation, or other external factors, before entry to engine
- Storage and treating facilities: Monitor and early detection of undesirable conditions as well as interface detection during dewatering of storage tanks



# Controls and Miscellaneous

## Model CM7 Pilot Guard

The CM7 Pilot Guard is designed to provide positive shut off of the gas supply to both the pilot and main burner in the event of a pilot flame out. It has a unique field adjustable sensitivity control that allows the operator to obtain a quick response of the CM7 to a pilot outage. Gas shutoff down to 20 seconds or less, regardless of the heat characteristics of the pilot flame. Adjustment of the sensitivity circuit is made using a supplied screwdriver. The CM7 requires no external power source. It is unaffected by power outages and can be used in areas where no electrical power is available. It is designed to be used with the RHSB pilot burner. For additional information, see [CM7 Pilot Guard Specifications](#) (SSIN004).

### Features and Benefits

- Detects pilot flame outage quickly
- Requires no external power source
- Controls both burner and pilot gas
- Ensures that the burner port is closed during pilot ignition
- Latchable reset for one-man pilot ignition
- Uses proven thermocouple technology for long service life
- Available with 15 feet of thermocouple leads
- Easily serviced and requires no special tools
- Constructed of anodized aluminum to withstand harsh conditions
- Main burner port vents through pilot port flame out
- Manufactured with stainless steel internal valve parts for a long and trouble-free life
- Seals constructed of fluoroelastomer for long life and resistance to most chemicals





## Model 80/80S Gas Scrubber Valves

Model 80S Gas Scrubber Valve is used in fuel gas scrubbers and air eliminators. Installs through 2-inch pipe coupling or can be wholly contained by mounting by 1-inch nipple welded through cover. Model 80S is a direct replacement for the IC-125 or Model 80 Scrubber Valve. For additional information, see [Model 80S Gas Scrubber Valve Parts List and Specifications](#) (SSIN002).



## Vent Line Flash Arrestor

Line Flash Arrestors for use on tank or similar low pressure, vertical, and vent lines to reduce chances for combustion within the line from an external source. All steel construction except 4-inch thick aluminum element.

CAUTION: Excessive pressure drop caused by high flow rates or differential pressure across element may be dangerous. Pressure drop across flash arrestors not to exceed one pounds per square inch (psi). The vent line flash arrestor is not for use on vent lines where this might occur.



# Flow Measurement

## WH Series Turbine Meters

The WH Oilfield Series Meter utilizes a rugged, durable three-piece rotor/stator design. The double-sleeve tungsten carbide bearing and flow-through design provides excellent performance and unsurpassed mean-time-between-failure (MTBF) characteristics. For additional information, see [Oilfield Style Liquid Turbine Meter WH Series Specifications](#) (SSIN038).

### Features and Benefits

- Rotor supports: Heavy-duty upstream and downstream flow straightening for increased accuracy and durability
- Helical cast rotor: Cast from highly wear-resistant stainless steel for durability and long service life
- Journal bearings and thrust balls: Tungsten carbide bearing surfaces are extremely durable and reliable
- All stainless steel construction: All wetted parts are highly corrosion-resistant stainless steel ensuring years of corrosion-free service
- Available in 1- and 2-inch wafer-style, 1- and 1 ½-inch NPT, and 2-inch f x f NPT



Flow Range		
Sizes (inch)	Gallons per minute (GPM)	Liters per minute (LPM)
1"	6.5 - 65	24.6 - 246
1 ½"	17.5 - 175	66.2 - 662
2"	40 - 400	151.2 - 1512

# Level Controls

## CT Flex Tube® Displacer Type Level Control

### General Purpose Enclosure

An industry standard for over 50 years, the CT Series Flex Tube's simplicity, reliability, ease of maintenance, and rugged construction have made it popular where downtime for repairs could be critical to processes or minimum maintenance is desirable. This enclosure is suitable for many exposed applications. All exhaust gas is vented inside the enclosure and then to the atmosphere through a screened vent connection. For additional information, see [CT Series Flex Tube Displacer-Type Level Controller Specifications and Parts List](#) (SSIN006).



### Waterproof Enclosure

The weatherproof pilot enclosure provides a weathertight pilot enclosure to completely protect the control from the elements and even house cleaning operations. In addition, it allows hazardous exhaust gases to be vented through piping to a safe release area. For additional information, see [CT Series Flex Tube Displacer-Type Level Controller Specifications and Parts List](#) (SSIN006).

## Model CMAQ/CMAF Level Controls

These snap-action, float-operated level controls are equipped with a three-way Micro Valve unit and are actuated by two adjustable arms. Adjustable pusher arms allow control range to be adjusted easily and accurately to desired range. For additional information, see [Models CMAQ and CMAF Liquid Levels Controls Specifications and Parts List](#) (SSIN007).



### Features and Benefits

- Adjustable span to desired level detection point
- No external power is required
- Standard gear stem assembly is 303 stainless steel
- Standard 14-inch long float rod

## Model CADM-201/CADMEX-201 Level Controls

These diaphragm-operated liquid level controls are available with either a pneumatic or electrical control switch. Model CADMEX-201 is supplied with an explosionproof single pole double throw switch (SPDT) Micro Switch. This switch is UL and CSA approved. Model CADM-201 is supplied with the popular snap-action, three-way Micro Valve, ideally suited for diaphragm motor valve control. The 2-inch process connections are recommended where high paraffin or sediment content is present in the measured material. The most outstanding feature of these controls is the absence of troublesome small orifice and chambers usually found in similar types of floatless level controls. For additional information, see [Models CMAQ and CMAF Liquid Levels Controls Specifications and Parts List](#) (SSIN007).





## Model CQ-401 Float Type, Continuous Drain

Model CQ-401 offers dual purpose action to automatically discharge vapor or liquid from a tank. The continuous drain valve is widely used in the bottom of fuel gas scrubbers to provide continuous drainage of the accumulated liquids and thus prevent transfer of the liquid to the burner section. For additional information, see [Model CQ-401 Float-Type Level Controls Continuous Drain Float Valve Specifications and Parts List](#) (SSIN010).



## Model IMS 780 Liquid Interface Measurement System

The superior design of the interface measurement system (IMS) offers reliable, precise control of gas/liquid or liquid/liquid interface levels. Carefully matched electronic assemblies with probe components combine to provide a measurement system for the most demanding applications. A wide variety of standard features and ease of installation give the IMS 780 the flexibility necessary for optimum performance. The IMS has been carefully designed for dedicated interface control and surpasses all other multi-purpose devices. For additional information, see [Model 780 Liquid Interface Measurement System Specifications](#) (SSIN005).



### Features and Benefits

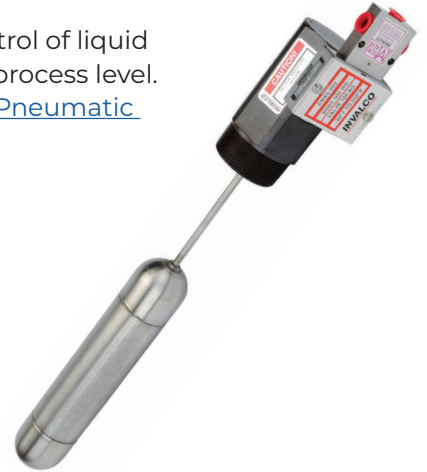
- Excellent sensitivity and repeatability means precision control even with difficult applications
- Non-fouling probe for continuous, reliable use
- Convenient operator interface provides visual status indication and greatly reduced set-up time
- Individually adjustable dual outputs with time delay allows the flexibility needed to change and customize control of your system
- Approved for use in hazardous locations, cUL and UL approved, Class I, Groups C and D
- 110/220 volts alternating current (VAC) or 24 VDC 6 watts
- Probe length variations available (consult the factory)

## Model CMAS-203/CMEASX-203 Level Control

Model CMAS-203 utilizes a stainless steel float and a pneumatic output for control of liquid level. An override feature permits adjustment of set points without disturbing process level. For additional information, see [Model CMAS-203 Snap-Action, Float-Operated Pneumatic Liquid Level Control Specifications and Parts List](#) (SSIN009).

### Features and Benefits

- Adjustable span to desired level detection point
- Proven Micro Valve unit provides long life and ease of maintenance
- Operation override allows for the adjustment of set points without disturbing process level
- Steel body provides long life, reducing cost of ownership
- NACE adaptable option for use in harsh, corrosive service
- Dual seal available



## Model CMEAQX and CMEAFX Floate-Operated Level Controls

Model CMEAQX and CMEAFX Float Controls provide electrical contact switch closure for alarm or control functions. An explosionproof Micro Switch is actuated by two adjustable yoke-type pusher arms permitting the control range to be easily and accurately adjusted.

With the liquid level below the float, the Micro Switch will be in the low level position and will remain there until the float resets to the preset high level. The Micro Switch will reverse positions until the float drops to the preset low level position of liquid level. An override feature permits adjustment of set points without disturbing process level. For additional information, see [Models CMEAQX and CMEAFX Float-Operated Level Controls Specifications and Parts List](#) (SSIN008).

### Features and Benefits

- Adjustable span allows for pump up and pump down control for easy-to-set desired level detection point
- Proven design provides long life and ease of maintenance
- Optional steel and ductile iron models are NACE adaptable for use in harsh, corrosive service
- Standard gear stem assembly is 303 stainless steel; 316 stainless steel is optional (consult the factory)



# Micro Valve

## Quick, Sure Response with Design Adaptability

With a unique, over-center snap-action you get a quick, sure response. There are no sliding seals, packing, or tight-fitting moving parts to leak, wear out, or stick. Therefore, no lubricants are required. All models have been tested through several million cycles without maintenance, thus guaranteeing your system's performance. Micro Valves will withstand abrasive-bearing fluids. With all ports having some connection, external contaminants cannot enter the units. Dirt and grit will not prevent tight seating and will not cause the valve to stick.

## Dependable Performance

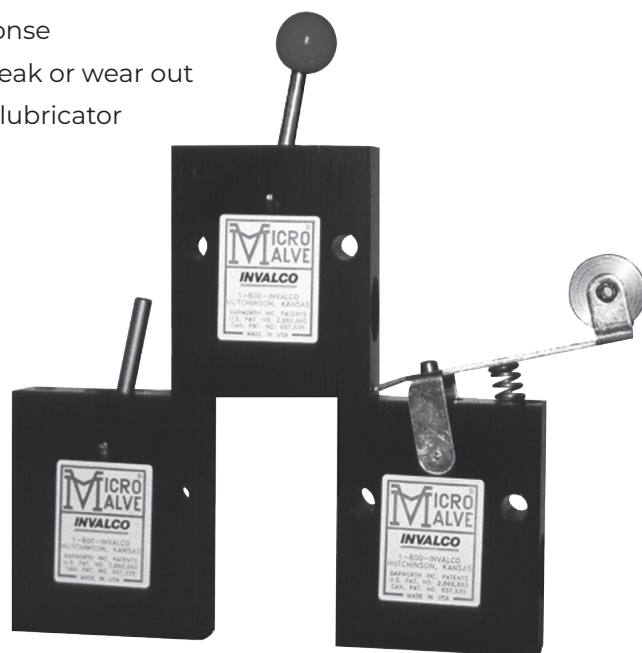
The valve offers sure response, with no "neutral" position, and no varying time lag between position. Micro Valves maintain either position without holding force, and cannot be vibrated or jarred out of position. Valve action is full-speed regardless of operator speed or force applied. Trip-point position repeats accurately and is essentially independent of the speed of the external device. Light operating forces are required and not affected by operating pressure or flow rate. Shut-off is bubble-tight up to related pressures.

## Features and Benefits

- Flow is instantly redirected so there is no leakage
- Unique over-center snap action provides quick, sure response
- No sliding seals, packing, or tight-fitting moving parts to leak or wear out
- Requires no lubrication so no need to introduce a system lubricator
- Suitable for vacuum service

## Applications

- Pressure switches
- Level controls
- Air switch to operate pneumatic tool
- Pilot operation of main valves
- Limit switches on cylinder actuated devices
- Diverting valve used to introduce additive to two independent flow systems
- Vial or container filling or sampling with instant and dripless shut off
- Machine shop and assembly area for parts "blow off"



For additional information, see [Micro Valve Parts List and Specifications](#) (SSIN064).

## Gas Operating Range

Series 316 Micro Valve Gas Flow				Series 38 Micro Valve Gas Flow		
$\Delta P$ (psig)	Q Standard Cubic Feet per House (SCFH)			Q (SCFH)		
	1/16" Orifice	1/32" Orifice	3/32" Orifice	1/8" Orifice	1/16" Orifice	3/16" Orifice
1	23.6	6.3	59.4	98.4	23.6	222.5
2	33.1	8.9	79.6	138.3	33.1	296.0
3	40.6	11.0	98.1	168.4	40.6	362.1
4	46.7	12.6	112.1	194.6	46.7	415.5
5	52.0	14.0	125.0	217.0	52.0	464.3
6	57.1	15.4	137.3	237.2	57.1	509.1
7	61.3	16.5	147.4	255.8	61.3	547.6
8	65.2	17.6	156.6	272.7	65.2	580.1
9	69.1	18.7	165.9	289.7	69.1	613.0
10	75.0	20.0	183.0	304.0	75.0	686.3
20	110.0	29.0	250.0	439.0	110.0	948.3
30	143.0	37.0	330.0	622.0	143.0	1,275.4
40	170.0	45.0	390.0	789.0	170.0	1,473.3
50	197.0	53.0	475.0	915.0	197.0	1,765.6
60	235.0	61.0	530.0	1,042.0	235.0	2,041.8
70	270.0	69.0	-	1,182.0	270.0	2,347.8
80	305.0	77.0	-	1,345.0	305.0	2,535.1
90	337.2	85.0	-	1,487.0	337.2	-
100	369.4	93.0	-	1,629.1	369.4	-
110	-	101.0	-	-	401.6	-
120	-	110.0	-	-	433.8	-
130	-	119.0	-	-	466.0	-
140	-	128.0	-	-	498.2	-
150	-	136.0	-	-	530.4	-
160	-	144.0	-	-	562.7	-
170	-	153.0	-	-	594.9	-
180	-	161.0	-	-	627.1	-
190	-	170.0	-	-	659.3	-
200	-	178.0	-	-	691.5	-
210	-	186.0	-	-	723.7	-
220	-	194.0	-	-	755.9	-
230	-	202.0	-	-	788.1	-
240	-	210.0	-	-	820.3	-
250	-	218.0	-	-	852.5	-

NOTE: The above flow rates are for water. To find the flow rate of other gases, divide the flow rate by the square root of the fluid's specific gravity.

## Liquid Operating Range

Series 316 Micro Valve Liquid Flow				Series 38 Micro Valve Gas Flow		
$\Delta P$ (psig)	Q Standard Cubic Feet per House (SCFH)			Q (SCFH)		
	1/16" Orifice	1/32" Orifice	3/32" Orifice	1/8" Orifice	1/16" Orifice	3/16" Orifice
1	0.09	0.02	0.20	0.37	0.09	0.73
2	0.12	0.03	0.28	0.52	0.12	1.03
3	0.15	0.04	0.35	0.64	0.15	1.26
4	0.18	0.05	0.40	0.74	0.18	1.46
5	0.20	0.05	0.45	0.83	0.20	1.63
6	0.22	0.06	0.49	0.91	0.22	1.79
7	0.23	0.06	0.53	0.98	0.23	1.93
8	0.25	0.07	0.57	1.05	0.25	2.06
9	0.26	0.07	0.60	1.11	0.26	2.19
10	0.28	0.08	0.63	1.17	0.28	2.31
20	0.39	0.11	0.89	1.65	0.39	3.26
30	0.48	0.13	1.10	2.03	0.48	4.00
40	0.56	0.15	1.26	2.34	0.56	4.62
50	0.62	0.17	1.41	2.62	0.62	5.16
60	0.68	0.19	1.55	2.87	0.68	5.65
70	0.74	0.20	-	3.10	0.74	6.11
80	0.79	0.21	-	3.31	0.79	6.53
90	0.83	0.23	-	3.51	0.88	-
100	0.88	0.24	-	3.70	0.88	-
110	-	0.25	-	-	0.92	-
120	-	0.26	-	-	0.96	-
130	-	0.27	-	-	1.00	-
140	-	0.28	-	-	1.04	-
150	-	0.29	-	-	1.08	-
160	-	0.30	-	-	1.11	-
170	-	0.31	-	-	1.15	-
180	-	0.32	-	-	1.18	-
190	-	0.33	-	-	1.21	-
200	-	0.34	-	-	1.24	-
210	-	0.35	-	-	1.28	-
220	-	0.36	-	-	1.31	-
230	-	0.36	-	-	1.33	-
240	-	0.37	-	-	1.36	-

NOTE: The above flow rates are for air. To find the flow rate of other fluids, divide the flow rate by the square root of the gas's specific gravity.

# Totalizers, Flow Computers and Transmitters

## Series 4200 Meter-Mounted Rate Totalizers

Model 4200 is a meter- or wall-mounted, programmable, battery operated, intrinsically-safe, rate/totalizer suitable for use in NEMA 4X weatherproof areas. As an option, Model 4200 can be loop powered and supply a 4-20 mA output, or be powered from a 8-35 VDC supply. For additional information, see [Meter-Mounted Rate Totalizer Series 4200 Specifications](#) (SSIN036).

### Features and Benefits

- Intrinsically safe to Class I, Div. 1, Groups A,B, C, and D CUL/UL
- Displays rate and accumulated total
- Battery, loop, or DC powered
- Weatherproof and corrosion resistant
- Wall, panel, or flowmeter mounting
- Fully programmable
- 4-20 mA output option
- Password protection
- K-factor linearization



## Series 4300 Meter-Mounted Rate Totalizers

Featuring five digits of rate and eight digits of total, the INVALCO 4300 is a battery or loop-powered indicator capable of accepting magnetic pickup, direct current (DC) pulse or switch closure inputs from pulse producing flowmeters. The unit can be ordered with an optional 4-20 mA output (Models 4300-3I and 4300-3O). The 4300 uses the 4-20 mA loop to provide power when this output is used. For additional information, see [Series 4300 Battery or Loop Powered Totalizers Specifications](#) (SSIN037).

### Features and Benefits

- Accepts inputs from magnetic pickups, contact closures, direct current (DC) pulses (optically isolated) from pulse producing flowmeters
- Displays rate and total simultaneously
- Five-digit rate display and eight-digit totalizer display
- 4-20 mA analog output option (eight updates/sec)
- Powered from internal battery, external DC supply, or 4-20 mA output loop
- 20-point linearization
- Isolated scaled pulse output
- Nonvolatile flash memory of setup data
- Extended battery life
- RS 485 Modbus option





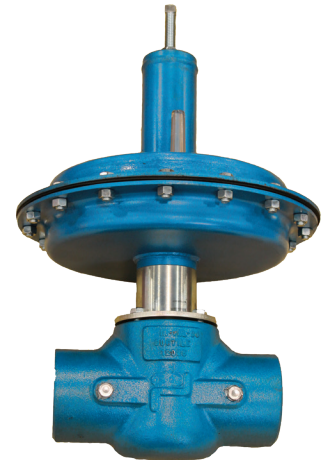
# Valves

## Series 415 and 416 Vessel Dump Control Valves

Series 415 is ideal for low-pressure separators or any application that needs to dump large volumes of fluid quickly. Series 416 is ideal for high-pressure separators or any application that requires moving large volumes of fluid quickly. For additional information, see [Series 415 Ductile Body Series 416 Steel Body Diaphragm Operated Two-Way Valves Parts List and Specifications](#) (SSIN045).

### Features and Benefits

- Quick-opening trim for better flow characteristics
- Ductile or steel bodies meets low- or high-pressure demands
- Threaded or grooved bodies meets more application demands
- Throttling or quick opening trim covers all operating conditions
- Nace adaptable (RNCE available) ensures the valve can be modified for use in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable	Trim
415/416	Ductile or steel	Steel	FNPT/grooved	Yes	Quick

## Series 418 and 420 High-Pressure Dump/Control Valves

Series 418 and Series 420 are ideal for high-pressure separators, dehydrators, or any application where it is necessary to control the fluid output. For additional information, see [Series 418 Ductile Body and Series 420 Steel Body Diaphragm Operated Two-Way Valves Parts Lists and Specifications](#) (SSIN046).

### Features and Benefits

- Ductile or steel bodies meets low- or high-pressure demands
- Hammer union construction for reduced downtime for repair
- Wide range of trim sizes meets all operating conditions
- Globe or angle body for ease of piping
- Nace adaptable (RNCE available) ensures the valve can be modified for use in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable	Trim
418/420	Ductile or steel	Steel, union	Threaded	Yes	Wide range

## Series 423 and 424 Non-Freeze Dump/Control Valve

Series 423 and Series 424 Valves are ideal for use as a liquid dump valve on high-pressure separators. The trim and seat are totally immersed in the fluid to prevent freeze-ups. For additional information, see [Series 423 Steel Body Diaphragm Operated Two-Way Non-Freeze Valves Parts List and Specifications](#) (SSIN061) and [Series 424 Steel Body Diaphragm Operated Two-Way Non-Freeze Valves Parts List and Specifications](#) (SSIN048).

### Features and Benefits

- Non-freeze construction prevents freeze-up at the plug and seat
- Hammer union construction for reduced downtime for repair
- Replaceable trim (RNCE available) reduces cost



Model	Body Material	Body Cover	End Connections	NACE Adaptable	Trim
423/424	Low temp. carbon steel	Steel, union	MNPT/FNPT	No	Replaceable

## Series 434 Flanged Dump/Control Valve

Series 434 Valve can be used in any application that requires a steel-bodied flanged valve. This could include high- or low-pressure separators, treaters, dehydrators, or any other pressure vessel. Series 434 is perfect for use on offshore vessels.

### Features and Benefits

- Hammer union construction reduces downtime for repair
- Quick change trim reduces cost for repair
- Steel body meets all application requirements
- Nace adaptable ensures the valve can be modified for use in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable	Trim
434	Steel	Carbon steel, union	Flanged	Yes	Quick

## Series 455 Double Port Dump/Control Valve

Series 455 Valve can be used in any low- to moderate-pressure application that requires discharge of large amounts of fluid quickly. This could be large treaters, separators, free water knockouts, etc. For additional information, see [Series 455 Steel Body Diaphragm Operated Two-Way Single Port Valves Parts List and Specifications](#) (SSIN051).

### Features and Benefits

- Ductile iron body meets most application needs
- Soft plug assures tight shutoff
- Double port construction ensures maximum discharge rates
- Nace adaptable (RNCE available) ensures the valve can be modified for use in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable
455	Ductile iron	Ductile iron	150 lb raised face	Yes

## Series 465 Single Port/Fuel Control Valve

Series 465 Globe Valve is commonly used as a fuel valve. Suitable applications include thermostat service or fuel shut-off for oil, gas, water, glycol, and distillate service. For additional information, see [Series 465 Steel Body Steel Body Diaphragm Operated Two-Way Single Port Valves Part List and Specifications](#) (SSIN052).

### Features and Benefits

- Carbon steel body meets all application requirements
- Soft plug ensures tight shut off
- Small size ensures precise modulation of fluid



Model	Body Material	Body Cover	End Connections	NACE Adaptable
465	Carbon steel	416 Stainless steel	FNPT	Yes

## Series 468 Single Port/Fuel Control Valve

Series 468 Globe Valve is perfect for use as a fuel regulating valve for precise burner controls. Suitable applications include thermostat service, fuel shut-off, for oil, gas, glycol, and distillate service. For additional information, see [Series 468 Ductile Body Diaphragm Operated Two-Way Single Port Valves Parts List and Specifications](#) (SSIN053).

### Features and Benefits

- Adjustable spring meets various application demands
- Soft plug ensures tight shut off
- Nace adaptable ensures the valve can be modified for use in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable
468	Ductile iron	Ductile iron	FNPT	Yes

## Series 470 Single Port/Fuel Control Valve

Series 470 Globe Valve is perfect for use when precise burner control is required. Suitable applications include thermostat service or fuel shut-off for oil, gas, glycol, and distillate service. For additional information, see [Series 470 Steel Body Diaphragm Operated Two-Way Single Port Valves Parts List and Specifications](#) (SSIN054).

### Features and Benefits

- Soft plug ensures tight shut off
- Adjustable spring meets various application demands
- Steel body meets most application requirements
- Nace adaptable ensures the valve can be modified for use in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable
470	Carbon steel	18-8 stainless	FNPT	Yes

## Series 476 Three-Way Control Valve

Series 476 Three-Way 2" Control Valve is ideal for use in diverting, blending, manifolding, and volume metering service. Its primary use is in LACT service, but it can be used in other blending applications. For additional information, see [Series 476 Ductile Body Diaphragm Operated Three-Way Valve Parts List and Specifications and Parts List](#) (SSIN066).

### Features and Benefits

- Replaceable seats reduce cost
- Grooved or threaded bodies meet most applications
- Direct or reverse acting ensures more flexibility in applications
- Two or three position inner valve allows for positive shut-off when metering fluids
- Nace adaptable ensures the valve can be used in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable
476	Ductile iron	Carbon steel	Grooved or NPT	Yes

## Series 504/507/510 Back Pressure Valves

Series 504/507/510 Valves are perfect for maintaining back pressure on vent lines from separators, treaters, dehydrators, compressor stations, gas gathering systems, etc. For additional information, see [Series 504 Ductile Body Back Pressure Valve with Internal Sensor Line Parts List and Specifications](#) (SSIN055), [Series 507 Ductile Body Back Pressure Valve with External Sensor Line Parts List and Specifications](#) (SSIN056), and [Series 510 Ductile Body Back Pressure Valve with External Sensor Line Parts List and Specifications](#) (SSIN057).

### Features and Benefits

- Ductile iron body meets most application needs
- Soft plug ensures tight shutoff
- Double-port construction ensures maximum discharge rates
- External sensor line for ease of service
- Internal sensor line reduces the chance of blockage
- Nace adaptable ensure the valve can be modified for use in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable
504	Ductile	Steel	FNPT	Yes
507	Ductile	Carbon steel	Grooved or FNPT	Yes
510	Ductile	Ductile	Flanged	Yes



## Series 524 Lever-Operated Dump Valve

Series 524 Valve can be used as oil or water dump valves on separators, treaters, free water knockouts, or similar vessels that require a lever-operated valve. For additional information, see [Series 524 Ductile Body Lever-Operated Valves Parts List and Specifications](#) (SSIN058).

### Features and Benefits

- Double-port design allows for maximum fluid discharge
- Soft plug ensures tight shut off
- Angle and globe bodies meets most application demands: Nace Adaptable (RNCE available)
- Nace adaptable (RNCE available) ensure the valve can be modified for use in sour service



Model	Body Material	Body Cover	End Connections	NACE Adaptable
524	Ductile	Ductile	Flanged	Yes

## Series 550 Socket Weld Long Nose Choke

Typically used in indirect heaters, long nose chokes are primarily used to expand high-pressure gas inside the flow coil of indirect heaters but can be used in any application requiring a long nose choke design. The “long nose” name is derived from the fact the outlet section of the angle-type body is extended permitting the choke orifice area to be immersed within the indirect heater bath. The heat generated in this manner minimizes the formation of hydrates, which occurs as high-pressure gas expands.

Model	Body Material	Body Cover	End Connections	NACE Adaptable
550	Forged steel	Carbon steel	Socket weld	Yes

## About Guidant

As the undisputed leader in liquid and gas custody transfer solutions with the largest global install base, Guidant's legacy is built on more than 80 years of expertise, accuracy, reliability, and best-in-class technologies. We are a private company focused on the measurement solutions business, serving emerging and established energy markets across the globe.

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