



BUSCHJOST FLUID CONTROL

- » 2/2-way valves
- » Part numbers highlighted in yellow ship in 2 days.

FLUID CONTROL SOLUTIONS



>> GLOBAL BRANDS CREATING GLOBAL ADVANTAGE

Norgren is a global company that engineers advantage for customers in both fluid and motion control technologies.

Norgren's Fluid Control Group focuses its energy and resources on **fluid control valves and solutions**.

The well-established and proven brands within this Group include:

» Buschjost » FAS » KIP » Kloehn

The bringing together of these brands into one organization provides our customers with the combined resources, expertise, and breadth of product range to enable them to source any fluid control solution from one capable global supplier, represented in all the world's major regions.

Norgren's fluid control solutions can create competitive advantage for you by increasing your sales and market share, and reducing your total cost of ownership.



Table of contents

2/2-way valves in brass or stainless steel, normally closed or open with following functions:

- **Indirect solenoid actuated**
- **Solenoid actuated, with forced lifting (from 0 psi)**
- **Pressure actuated**

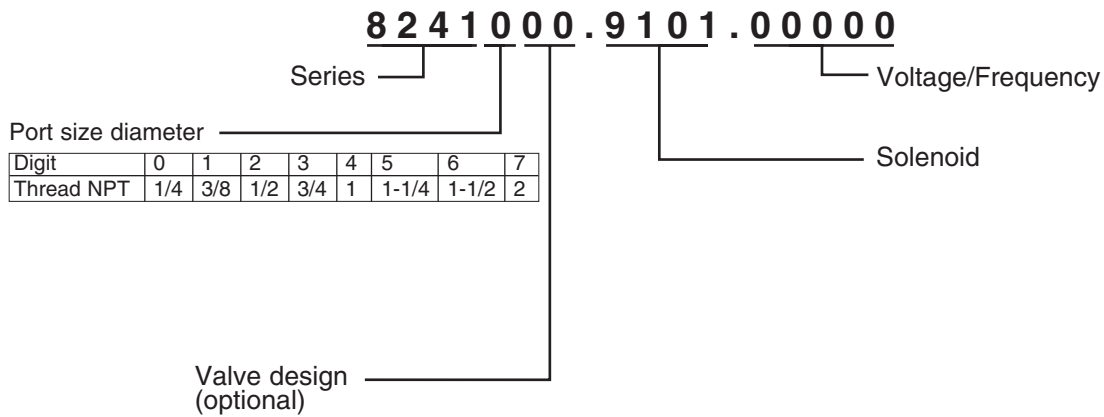
Indirect solenoid actuated			Page	Pressure actuated			Page
		1.5 to 232 psi 82410 1/4" to 2" NPT Brass, NC / NO	4		up to 356° F	0 to 232 psi 84730 1/2" to 1" NPT Brass, NC / NO	18
	Stainless Steel	1.5 to 232 psi 82740 1/4" to 1" NPT Stainless steel, NC / NO	6		Stainless Steel up to 356° F	0 to 232 psi 84750 1/2" to 1" NPT Stainless steel, NC / NO	20
	up to 580 psi	7.3 to 580 psi 85310 1/4" to 2" NPT Brass, NC / NO	8		up to 356° F	0 to 232 psi 84510 1/2" to 2" NPT Brass, NC / NO	22
	up to 392° F	14.5 to 362 psi 85330 1/4" to 1" NPT Brass, NC / NO	10		Stainless Steel up to 356° F	0 to 232 psi 84530 1/2" to 2" NPT Stainless steel, NC / NO	24
Solenoid actuated, with forced lifting			Page	3/2-way pilot valve			Page
		0 to 145 psi 82630 1/4" to 1/2" NPT Brass, NC	12			14.5 to 145 psi 84670 / 84690 1/4" NPT Brass, NC	26
	Stainless Steel	0 to 145 psi 82570 1/4" to 1/2" NPT Stainless steel, NC	14				
		0 to 145 psi 82640 1/4" to 2" NPT Brass, NC / NO	16				

We also provide a wide range of valves for diverse industrial and process control applications from chemical process and steam / water to environmental control and fuel dispenser as well as high-performance and cost effective special solutions.

Notes for Pressure Equipment Directive see page 28

Key to valve catalog numbers

Example:



- 00 Standard
- 01 Normally open (NO)
- 02 Manual override
- 03 FPM seals
- 06 PTFE seals
- 14 EPDM seals
- 22 higher operating pressure
- 23 electrical position indicator
- 25 FPM seals for higher viscosity and others

- 01 ... 49 = Additional equipment, applicable for all series but not available in every series.
- 50 ... 99 = Additional equipment, applicable only for one series.

Notes for Pressure Equipment Directive see page 28

2/2-way valves DN 8 to DN 50

For neutral gaseous and liquid fluids

Indirectly solenoid actuated

Diaphragm valves / damped operation

Internal threads 1/4" to 2" NPT

Technical Data

Solenoid valve for air or water

Operating pressure: 1.5 to 145/232 psi

Switching function: Normally closed

Flow direction: One way

Fluid temperature: 14°F up to max. 194°F

Ambient temperature: 14°F up to max. 122°F

Mounting position: optional, preferably solenoid vertical on top

Material

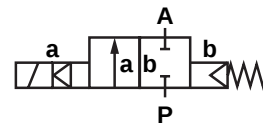
Body: Brass

Seat seal: NBR

Internal parts: Stainless steel, PVDF resp. brass

For contaminated fluids insertion of a strainer is recommended.

Click-on®
Solenoid changeable without tools



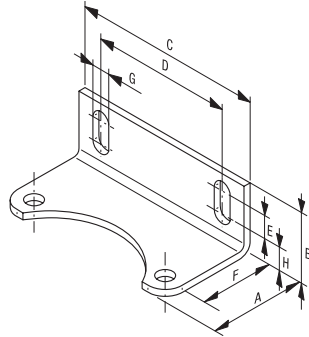
Valve specifications **Item ship in two days**

Port Size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi				
					Normally closed NBR	Normally open	Manual override	Seat seal FPM 230°F	Seat seal EPDM 230°F
					00	01	02	03	14
1/4	5/16	8	2.3	82410XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
3/8	3/8	10	3.6	82411XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
1/2	7/16	12	4.5	82412XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
3/4	3/4	20	7.3	82413XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
1	1	25	11.4	82414XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
1-1/4	1-1/4	32	27.6	82415XX.9101.00000	1.5 – 145	–	1.5 – 152	1.5 – 145	4.5 – 145
1-1/4	1-1/4	32	27.6	82415XX.9151.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
1-1/2	1-1/2	40	30	82416XX.9101.00000	1.5 – 145	–	1.5 – 145	1.5 – 145	4.5 – 145
1-1/2	1-1/2	40	30	82416XX.9151.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
2	2	50	49.2	82417XX.9101.00000	1.5 – 145	–	1.5 – 145	1.5 – 145	4.5 – 145
2	2	50	49.2	82417XX.9151.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232

→ When ordering please select voltage i.e.:
8241200.9101.12060 for voltage 120V 60Hz or
8241200.9101.02400 for voltage 24V DC

Solenoid 9101 / 9151

Standard voltages			Power consumption			
DC	AC		Solenoid	DC	AC	
	50Hz	60Hz			Inrush	Holding
24V	24V	–	9101	8W	15VA	12VA
–	110V	120V	9151	18W	45VA	35VA
–	230V	220V				
Voltage range +/-10%, 100% duty cycle			Solenoids on stock:			
Protection class acc. to EN 60529 IP65 / Nema 4x			Cat.-No.			
Socket acc. to DIN EN 175301-803 (included)			0000000.9101.02400		24V DC	
Solenoids acc. to UR and CSA standards			0000000.9101.12060		120V 60Hz	



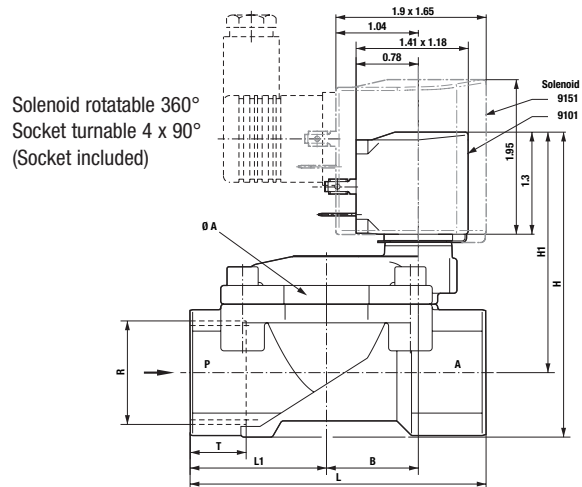
Mounting bracket kits

Includes 1 stainless steel bracket, and 2 mounting screws

Size NPT	Cat.-No.	A	B	C	D	E	F	G	H
1/4, 3/8, 1/2	1258986	1.1	1.0	1.7	1.0	0.6	1.0	0.3	0.3
3/4	1258991	1.3	1.0	2.2	1.6	0.6	1.1	0.3	0.3
1	1258996	1.4	1.0	2.7	2.0	0.6	1.1	0.3	0.3
1-1/4, 1-1/2	1259005	1.9	1.2	3.9	2.8	0.6	1.3	0.3	0.5
2	1259007	2.1	1.2	4.5	3.5	0.6	1.5	0.3	0.5

Further options on request:

- flange versions
- isolated core tube
- latching systems (only DC)
- low power consumption 2W (only 24 V DC)



Service Kits* for version "00" (NC, NBR)

For valves with solenoid 9101	Cat.-No.
8241000, 8241100, 8241200	1256274
8241300	1256275
8241400	1256276
8241500, 8241600	1259344
8241700	1259367
For valves with solenoid 9151	Cat.-No.
8241500, 8241600	1259373
8241700	1259382

*Service kit includes diaphragm, spring, plunger and seal

Dimensions (inches)

Model	ØA	B	H	H1	L	L1	R	T
82410XX.9101.00000	1.73	0.77	3.09	2.64	2.36	1.08	1/4	0.39
82411XX.9101.00000	1.73	0.77	3.09	2.64	2.36	1.08	3/8	0.39
82412XX.9101.00000	1.73	0.77	3.19	2.64	2.64	1.22	1/2	0.53
82413XX.9101.00000	1.97	0.94	3.46	2.81	3.15	1.44	3/4	0.55
82414XX.9101.00000	2.44	1.16	3.84	3.03	3.74	1.73	1	0.67
82415XX.9101.00000	3.62	1.75	4.90	3.76	5.20	2.36	1-1/4	0.67
82416XX.9101.00000	3.62	1.75	4.90	3.76	5.20	2.36	1-1/2	0.67
82417XX.9101.00000	4.29	2.15	5.61	4.25	6.30	2.91	2	0.69

2/2-way valves DN 8 to DN 25

For slightly aggressive gaseous and liquid fluids

Indirectly solenoid actuated

Diaphragm valves / damped operation

Internal threads 1/4" to 1" NPT

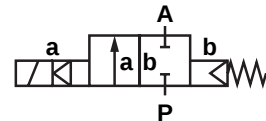
Technical Data

Operating pressure:	1.5 to 145/232 psi
Switching function:	Normally closed
Flow direction:	determined
Fluid temperature:	14°F up to max. 194°F
Ambient temperature:	14°F up to max. 122°F
Mounting position:	optional, preferably solenoid vertical on top

Material

Body and Cover:	Stainless steel (1.4408 / AISI 316)
Seat seal:	NBR
Internal parts:	Stainless steel, PVDF
For contaminated fluids insertion of a strainer is recommended.	

Click-on®
Solenoid changeable without tools



Valve specifications Item ship in two days

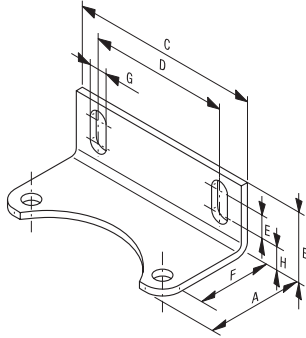
Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi				
					Normally closed NBR	Normally open	Manual override	Seat seal FPM 230°F	Seat seal EPDM 230°F
					00	01	02	03	14
1/4	5/16	8	2.3	82740XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
3/8	3/8	10	3.6	82741XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
1/2	7/16	12	4.5	82742XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
3/4	3/4	20	7.3	82743XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232
1	1	25	11.4	82744XX.9101.00000	1.5 – 232	1.5 – 232	1.5 – 232	1.5 – 232	4.5 – 232

When ordering please select voltage i.e.:
8274200.9101.12060 for voltage **120V 60Hz** or
8274200.9101.02400 for voltage **24V DC**

Solenoid 9101

Standard voltages			Power consumption			
DC	AC		Solenoid	DC	AC	
	50Hz	60Hz			Inrush	Holding
24V	24V	–	9101	8W	15VA	12VA
–	110V	120V				
–	230V	220V				
Voltage range +/-10%, 100% duty cycle Protection class acc. to EN 60529 IP65 / Nema 4x Socket acc. to DIN EN 175301-803 (included) Solenoids acc. to UR and CSA standards			Solenoids on stock: Cat.-No. 0000000.9101.02400 24V DC 0000000.9101.12060 120V 60Hz			

2/2-way valves DN 8 to DN 25



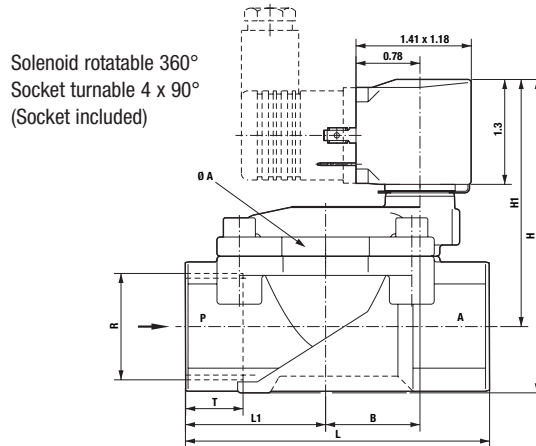
Mounting bracket kits

Includes 1 stainless steel bracket, and 2 mounting screws

Size NPT	Cat.-No.	A	B	C	D	E	F	G	H
1/4, 3/8, 1/2	1258986	1.1	1.0	1.7	1.0	0.6	1.0	0.3	0.3
3/4	1258991	1.3	1.0	2.2	1.6	0.6	1.1	0.3	0.3
1	1258996	1.4	1.0	2.7	2.0	0.6	1.1	0.3	0.3

Further options on request:

- flange versions
- isolated core tube
- latching systems (only DC)
- low power consumption 2W (only 24 V DC)
- other sizes 1-1/4 to 2 NPT



Service Kits* for version "00" (NC, NBR)

For valves with solenoid 9101	Cat.-No.
8274000, 8274100, 8274200	1256274
8274300	1256275
8274400	1256276

*Service kit includes diaphragm, spring, plunger and seal

Dimensions (inches)

Model	ØA	B	H	H1	L	L1	R	T
82740XX.9101.00000	1.73	0.77	3.09	2.64	2.36	1.08	1/4	0.39
82741XX.9101.00000	1.73	0.77	3.09	2.64	2.36	1.08	3/8	0.39
82742XX.9101.00000	1.73	0.77	3.19	2.64	2.64	1.22	1/2	0.53
82743XX.9101.00000	1.97	0.94	3.46	2.81	3.15	1.44	3/4	0.55
82744XX.9101.00000	2.44	1.16	3.84	3.03	3.74	1.73	1	0.67

Notes for Pressure Equipment Directive see page 28

2/2-way valves DN 8 to DN 50

For neutral gaseous and liquid fluids

Indirectly solenoid actuated

Piston valves / damped operation

Internal threads 1/4" to 2" NPT

Technical Data

Solenoid valve for air, water

Operating pressure: 7.3 to 580 psi

Switching function: Normally closed

Flow direction: determined

Fluid temperature: -4°F up to max. 194°F

Ambient temperature: -4°F up to max. 122°F

Mounting position: optional, preferably solenoid vertical on top

Material

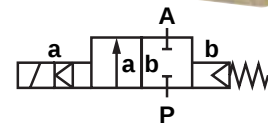
Body: Brass

Seat seal: NBR

Internal parts: Stainless steel, Brass, PTFE

For contaminated fluids insertion of a strainer is recommended.

Click-on®
Solenoid changeable without tools



Valve specifications **Item ship in two days**

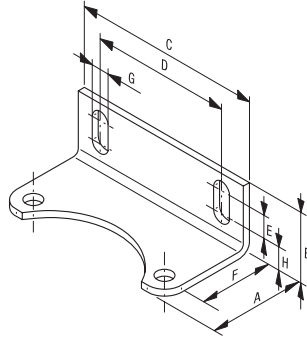
Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi				
					Normally closed NBR	Normally open	Manual override	Seat seal FPM 230°F	Seat seal EPDM 230°F
					00	01	02	03	14
1/4	5/16	8	2.6	85310XX.9151.00000	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580
3/8	3/8	10	4.1	85311XX.9151.00000	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580
1/2	7/16	12	5.3	85312XX.9151.00000	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580
3/4	3/4	20	8.4	85313XX.9151.00000	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580
1	1	25	12.6	85314XX.9151.00000	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580	7.3 - 580
1-1/4	1-1/4	32	30.0	85315XX.9151.00000	7.3 - 580	7.3 - 580*	7.3 - 580	7.3 - 580	7.3 - 580
1-1/2	1-1/2	40	32.4	85316XX.9151.00000	7.3 - 580	7.3 - 580*	7.3 - 580	7.3 - 580	7.3 - 580
2	2	50	51.6	85317XX.9151.00000	7.3 - 580	7.3 - 580*	7.3 - 580	7.3 - 580	7.3 - 580

When ordering please select voltage i.e.:
8531200.9151.12060 for voltage **120V 60Hz** or
8531200.9151.02400 for voltage **24V DC**
*Operating pressure max 435 psi

Solenoid 9151

Standard voltages			Power consumption			
DC	AC		Solenoid	DC	AC	
	50Hz	60Hz			Inrush	Holding
24V	24V	—	9151	18W	45VA	35VA
—	110V	120V				
—	230V	220V				
Voltage range +/-10%, 100% duty cycle Protection class acc. to EN 60529 IP65 / Nema 4x Socket acc. to DIN EN 175301-803 (included) Solenoids acc. to UR and CSA standards			Solenoids on stock: Cat.-No. 0000000.9151.02400 24V DC 0000000.9151.12060 120V 60Hz			

2/2-way valves DN 8 to DN 50

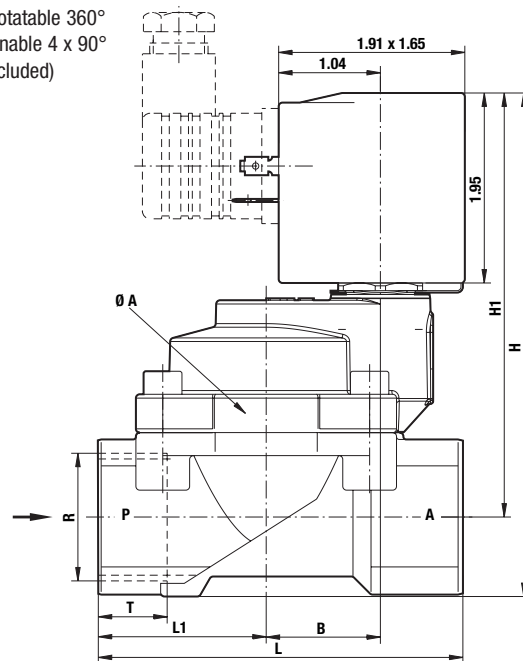


Mounting bracket kits

Includes 1 stainless steel bracket, and 2 mounting screws

Size NPT	Cat.-No.	A	B	C	D	E	F	G	H
1/4, 3/8, 1/2	1258988	1.1	1.0	1.7	1.0	0.6	1.0	0.3	0.3
3/4	1258993	1.3	1.0	2.2	1.6	0.6	1.1	0.3	0.3
1	1258998	1.4	1.0	2.7	2.0	0.6	1.1	0.3	0.3
1-1/4, 1-1/2	1259006	1.9	1.2	3.9	2.8	0.6	1.3	0.3	0.5
2	1259008	2.1	1.2	4.5	3.5	0.6	1.5	0.3	0.5

Solenoid rotatable 360°
 Socket turnable 4 x 90°
 (Socket included)



Further options on request:

- flange versions
- isolated core tube

Service Kits for version "00" (NC, NBR)

For valves with solenoid 9151	Cat.-No.
8531000, 8531100, 8531200	1257998
8531300	1258002
8531400	1258006
8531500, 8531600	1258589
8531700	1259152

*Service kit includes diaphragm, spring, plunger and seal

Dimensions (inches)

Model	ØA	B	H	H1	L	L1	R	T
85310XX.9151.00000	1.73	0.77	4.13	3.68	2.36	1.08	1/4	0.39
85311XX.9151.00000	1.73	0.77	4.13	3.68	2.36	1.08	3/8	0.39
85312XX.9151.00000	1.73	0.77	4.23	3.68	2.64	1.22	1/2	0.53
85313XX.9151.00000	1.97	0.94	4.69	4.04	3.15	1.44	3/4	0.55
85314XX.9151.00000	2.44	1.16	5.18	4.35	3.74	1.73	1	0.67
85315XX.9151.00000	3.62	1.75	6.54	5.39	5.20	2.36	1-1/4	0.67
85316XX.9151.00000	3.62	1.75	6.54	5.39	5.20	2.36	1-1/2	0.67
85317XX.9151.00000	4.29	2.15	7.32	5.97	6.30	2.91	2	0.69

Notes for Pressure Equipment Directive see page 28

2/2-way valves DN 8 to DN 25

For neutral vaporous and liquid fluids

Indirectly solenoid actuated

Piston valves / damped operation

Internal threads 1/4" to 1" NPT

Technical Data

Solenoid valve for hot water and steam

Operating pressure: 14.5 to 362 psi

Switching function: Normally closed

Flow direction: determined

Fluid temperature: 14°F up to max. 392°F

Ambient temperature: 14°F up to max. 122°F; if solenoid mounting position vertical underneath, temperature max. 140°F optional, preferably solenoid vertical on top

Mounting position:

Material

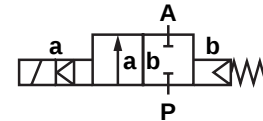
Body: Brass

Seat seal: PTFE

Internal parts: Stainless steel, FPM, PTFE

For contaminated fluids insertion of a strainer is recommended.

Click-on®
Solenoid changeable without tools



Valve specifications

Item ships in two days

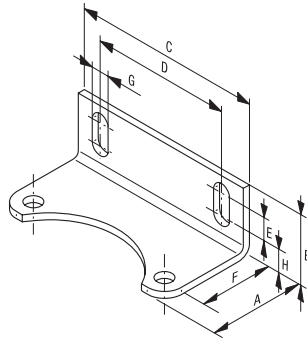
Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi		
					Normally closed PTFE	Normally open	Manual override
					00	01	02
1/4	5/16	8	2.6	85330XX.9152.00000	14.5 - 362	14.5 - 232	14.5 - 362
3/8	3/8	10	4.1	85331XX.9152.00000	14.5 - 362	14.5 - 232	14.5 - 362
1/2	7/16	12	5.3	85332XX.9152.00000	14.5 - 362	14.5 - 232	14.5 - 362
3/4	3/4	20	8.4	85333XX.9152.00000	14.5 - 362	14.5 - 232	14.5 - 362
1	1	25	12.6	85334XX.9152.00000	14.5 - 362	14.5 - 232	14.5 - 362

When ordering please select voltage i.e.:
8533200.9152.12060 for voltage 120V 60Hz or
8533200.9152.02400 for voltage 24V DC

Solenoid 9152

Standard voltages			Power consumption			
DC	AC		Solenoid	DC	AC	
	50Hz	60Hz			Inrush	Holding
24V	24V	—	9152	10W	15VA	10W
—	110V	120V				
—	230V	220V				
Voltage range +/-10%, 100% duty cycle Protection class acc. to EN 60529 IP65 / Nema 4x Socket acc. to DIN EN 175301-803 (included) Solenoids acc. to UR and CSA standards			Solenoids on stock: Cat.-No. 0000000.9152.02400 24V DC 0000000.9152.12060 120V 60Hz			

2/2-way valves DN 8 to DN 25



Mounting bracket kits

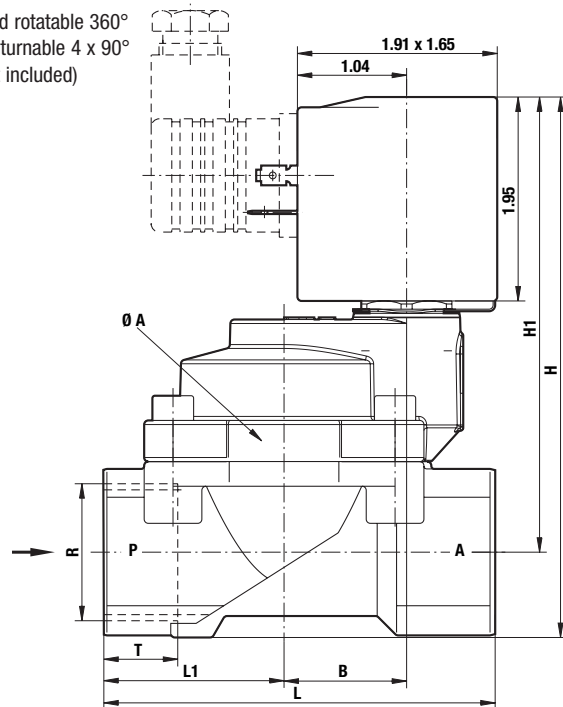
Includes 1 stainless steel bracket, and 2 mounting screws

Size NPT	Cat.-No.	A	B	C	D	E	F	G	H
1/4, 3/8, 1/2	1258988	1.1	1.0	1.7	1.0	0.6	1.0	0.3	0.3
3/4	1258993	1.3	1.0	2.2	1.6	0.6	1.1	0.3	0.3
1	1258998	1.4	1.0	2.7	2.0	0.6	1.1	0.3	0.3

Further options on request:

- flange versions

Solenoid rotatable 360°
 Socket turnable 4 x 90°
 (Socket included)



Service Kits* for version "00" (NC, NBR)

For valves with solenoid 9152	Cat.-No.
8533000, 8533100, 8533200	1261735
8533300	1261736
8533400	1261737

*Service kit includes diaphragm, spring, plunger and seal

Dimensions (inches)

Model	ØA	B	H	H1	L	L1	R	T
85330XX.9152.00000	1.73	0.77	4.13	3.68	2.36	1.08	1/4	0.39
85331XX.9152.00000	1.73	0.77	4.13	3.68	2.36	1.08	3/8	0.39
85332XX.9152.00000	1.73	0.77	4.23	3.68	2.64	1.22	1/2	0.53
85333XX.9152.00000	1.97	0.94	4.69	4.04	3.15	1.44	3/4	0.55
85334XX.9152.00000	2.44	1.16	5.18	4.35	3.74	1.73	1	0.67

Notes for Pressure Equipment Directive see page 28

2/2-way valves DN 10

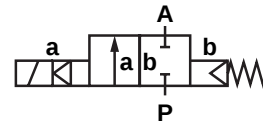
For neutral gaseous and liquid fluids
Solenoid actuated, with forced lifting
Diaphragm valves
Internal threads 1/4" to 1/2" NPT

Technical Data

Solenoid valve for air, water, oil
Operating pressure: 0 to 145 psi
Switching function: Normally closed
Flow direction: determined
Fluid temperature: 14°F up to max. 194°F
Ambient temperature: 14°F up to max. 122°F
Mounting position: optional, preferably solenoid vertical on top

Material

Body: Brass, PA 66
Seat seal: NBR
Internal parts: Stainless steel, PVDF
For contaminated fluids insertion of a strainer is recommended.



Valve specifications **Item ships in two days**

Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi			
					Normally closed NBR	Seat seal FPM 230° F	Seat seal EPDM 230°F	Seat seal HNBR 302°F
					00	03	14	51
1/4	3/8	10	1.8	82630XX.8024.00000	0 - 145	0 - 145	0 - 145	0 - 87
3/8	3/8	10	2.0	82631XX.8024.00000	0 - 145	0 - 145	0 - 145	0 - 87
1/2	3/8	10	2.0	82632XX.8024.00000	0 - 145	0 - 145	0 - 145	0 - 87

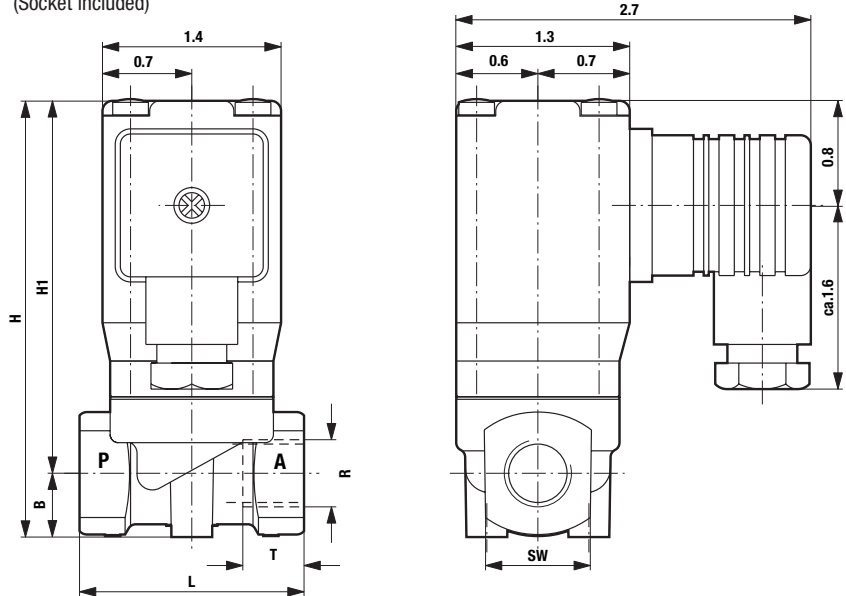
When ordering please select voltage i.e.:
8263000.8024.12060 for voltage **120V 60Hz** or
8263000.8024.02400 for voltage **24V DC**
HNBR (51): max. ambient temperature 104°F

Solenoid 8024

Standard voltages			Power consumption			
DC	AC		Solenoid	DC	AC	
	50Hz	60Hz			Inrush	Holding
24V	24V	—	8024	12W	20VA	16VA
—	110V	120V				
—	230V	220V				
Voltage range +/-10%, 100% duty cycle						
Protection class acc. to EN 60529 IP00 / with socket						
IP 65 / Nema 4x acc. to DIN EN 175301-803 (not included)						
Valves acc. to UL and CSA standards						

2/2-way valves DN 10

Socket turnable 4 x 90°
(Socket included)



Further options on request:

- other voltages
- body with fastening thread 2x M5
- operating pressure up to 290 psi only for NBR and AC solenoid
- degreased version, seat seal FPM

Service Kits* for version "00" (NC, NBR)

For valves with solenoid 8024	Cat.-No.
8263000, 8263100, 8263200	1256202

*Service kit includes diaphragm, spring, plunger and seal

Dimensions (inches)

Model	L	H	H1	B	SW	R	T
82630XX.8024.00000	1.73	3.37	2.87	0.49	0.83	1/4	0.39
82631XX.8024.00000	1.73	3.37	2.87	0.49	0.83	3/8	0.39
82632XX.8024.00000	2.36	3.13	2.97	0.49	1.06	1/2	0.51

Notes for Pressure Equipment Directive see page 28

2/2-way valves DN 10

For slightly aggressive gaseous and liquid fluids

Solenoid actuated, with forced lifting

Diaphragm valves

Internal threads 1/4" to 1/2" NPT

Technical Data

Solenoid valve for slightly aggressive gases and liquids

Operating pressure: 0 to 145 psi

Switching function: Normally closed

Flow direction: determined

Fluid temperature: 14°F up to max. 194°F

Ambient temperature: 14°F up to max. 122°F

Mounting position: optional, preferably solenoid vertical on top

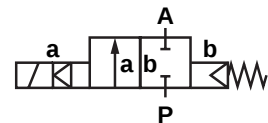
Material

Body: Stainless steel, PA 66

Seat seal: NBR

Internal parts: Stainless steel, PVDF

For contaminated fluids insertion of a strainer is recommended.



Valve specifications

Item ships in two days

Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi			
					Normally closed NBR	Seat seal FPM 230° F	Seat seal EPDM 230°F	Seat seal HNBR 302°F
					00	03	14	51
1/4	3/8	10	1.8	82570XX.800X.00000	0 - 145	0 - 145	0 - 145	0 - 87
3/8	3/8	10	2.0	82571XX.800X.00000	0 - 145	0 - 145	0 - 145	0 - 87
1/2	3/8	10	2.0	82572XX.800X.00000	0 - 145	0 - 145	0 - 145	0 - 87

Attention:

AC solenoid with rectifier in socket.

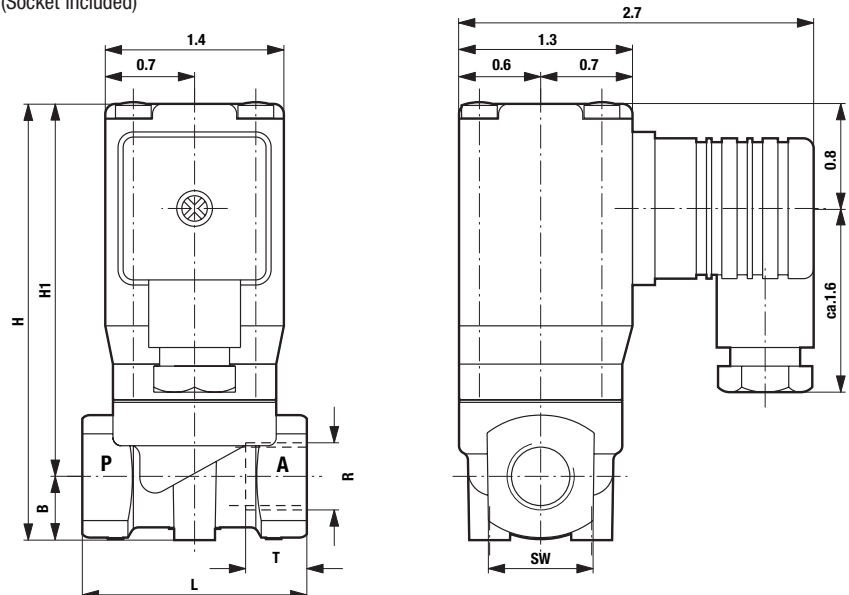
When ordering please select voltage i.e.:
8257000.8004.12049 for voltage 120V 40-60Hz or
8257000.8001.02400 for voltage 24V DC
HNBR (51): max. ambient temperature 104°F

Solenoid 8001 / 8004

Standard voltages			Power consumption			
DC	AC		Solenoid	DC	AC	
	50Hz	60Hz			Inrush	Holding
24V	24V	—	8001	12W	—	—
—	110V	120V	8004	—	13VA	13VA
—	230V	220V				
Voltage range +/-10%, 100% duty cycle						
Protection class acc. to EN 60529 IP65 / Nema 4x						
Socket acc. to DIN EN 175301-803 (included)						

2/2-way valves DN 10

Socket turnable 4 x 90°
(Socket included)



Further options on request:

- other voltages
- body with fastening thread 2x M5
- operating pressure up to 290 psi only for NBR and AC solenoid
- degreased version, seat seal FPM

Dimensions (inches)

Model	L	H	H1	B	SW	R	T
82570XX.800X.00000	1.73	3.37	2.87	0.49	0.83	1/4	0.39
82571XX.800X.00000	1.73	3.37	2.87	0.49	0.83	3/8	0.39
82572XX.800X.00000	2.36	3.13	2.97	0.49	1.06	1/2	0.51

Service Kits* for version "00" (NC, NBR)

For valves with solenoid 800X	Cat.-No.
8257000, 8257100, 8257200	1257112

*Service kit includes diaphragm, spring, plunger and seal

Notes for Pressure Equipment Directive see page 28

2/2-way-valves DN 8 to DN 50

For neutral gaseous and liquid fluids
solenoid actuated, with forced lifting
Diaphragm valves / damped operation
Internal threads 1/4" to 2" NPT

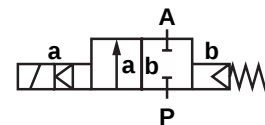
Technical Data

Solenoid valve for air, water, oil
Operating pressure: 0 to 145 psi
Switching function: Normally closed
Flow direction: determined
Fluid temperature: 14°F up to max. 194°F
Ambient temperature: 14°F up to max. 122°F
Mounting position: optional, preferably solenoid vertical on top

Material

Body: Brass
Seat seal: NBR
Internal parts: Stainless steel, PVDF
For contaminated fluids insertion of a strainer is recommended.

Click-on®
Solenoid changeable without tools



Valve specifications Item ships in two days

Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi				
					Normally closed NBR	Normally open	Manual override	Seat seal FPM 230°F	Seat seal EPDM 230°F
					00	01	02	03	14
1/4	5/16	8	2.3	82640XX.915X.00000	0 - 145	0 - 145	—	0 - 145	0 - 145
3/8	3/8	10	3.6	82641XX.915X.00000	0 - 145	0 - 145	—	0 - 145	0 - 145
1/2	7/16	12	4.1	82642XX.915X.00000	0 - 145	0 - 145	—	0 - 145	0 - 145
3/4	3/4	20	7.0	82643XX.915X.00000	0 - 145	0 - 145	—	0 - 145	0 - 145
1	1	25	9.6	82644XX.915X.00000	0 - 145	0 - 145	—	0 - 145	0 - 145
1-1/4	1-1/4	32	27.6	82645XX.940X.00000	0 - 145	0 - 145*	0 - 145	0 - 145	0 - 145
1-1/2	1-1/2	40	30.0	82646XX.940X.00000	0 - 145	0 - 145*	0 - 145	0 - 145	0 - 145
2	2	50	49.2	82647XX.940X.00000	0 - 145	0 - 145*	0 - 145	0 - 145	0 - 145

Attention:

AC solenoid with rectifier in socket.

* NO-version with solenoid type 8401 (DC) / 8404 (AC)

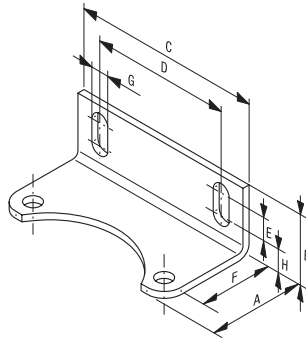
When ordering please select voltage i.e.:
8264200.9154.12049 for voltage 120V 40-60Hz or
8264200.9151.02400 for voltage 24V DC
8264600.9404.12049 for voltage 120V 40-60Hz or
8264600.9401.02400 for voltage 24V DC

Solenoid 915X / 940X / 840X

Standard voltages			Power consumption			
DC	AC		Solenoid	DC	AC	
	50Hz	60Hz			Inrush	Holding
24V	24V	—	915X	18W	45VA	35VA
—	110V	120V	940X	38W	42VA	42VA
—	230V	220V	840X	40W	45VA	45VA

Voltage range +/-10%, 100% duty cycle Protection class acc. to EN 60529 IP65 / Nema 4x Socket acc. to DIN EN 175301-803 (included) Solenoids acc. to UR and CSA standards (Excluded solenoid 840X)			Solenoids on stock: Cat.-No.		
			0000000.9151.02400	24V DC	
			0000000.9154.12049	120V 40-60Hz	
			0000000.9401.02400	24V DC	
			0000000.9404.12049	120V 40-60Hz	

2/2-way-valves DN 8 to DN 50



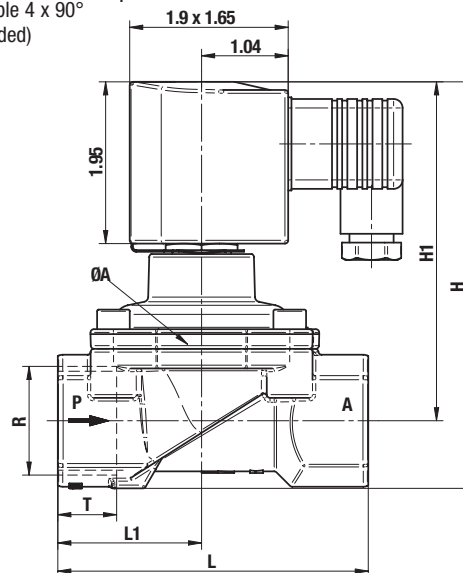
Mounting bracket kits:

Includes 1 stainless steel bracket, and 2 mounting screws

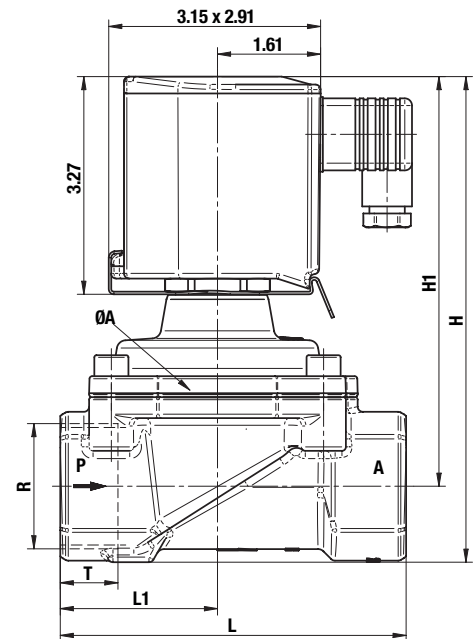
Size NPT	Cat.-No.	A	B	C	D	E	F	G	H
1/4, 3/8, 1/2	1258986	1.1	1.0	1.7	0.0	0.6	0.0	0.3	0.3
3/4	1258991	1.3	1.0	2.2	1.6	0.6	1.1	0.3	0.3
1	1258996	1.4	1.0	2.7	1.0	0.6	1.1	0.3	0.3
1-1/4, 1-1/2	1259005	1.9	1.2	3.9	2.8	0.6	1.3	0.3	0.5
2	1259007	2.1	1.2	4.5	3.5	0.6	1.5	0.3	0.5

Solenoid rotatable 360°
 Socket turnable 4 x 90°
 (Socket included)

up to NPT 1



from NPT 1-1/4



Further options on request:

- flange versions

Service Kits* for version "00" (NC, NBR)

For valves with solenoid 915X	Cat.-No.
8264000, 8264100, 8264200	1260177
8264300	1260178
8264400	1260179
For valves with solenoid 940X	Cat.-No.
8264500, 8264600	1263099
8264700	1263100

*Service kit includes diaphragm, spring, plunger and seal

Dimensions (inches)

Model	ØA	H	H1	L	L1	R	T
82640XX.915X.00000	1.73	4.09	3.64	2.36	1.08	1/4	0.39
82641XX.915X.00000	1.73	4.09	3.64	2.36	1.08	3/8	0.39
82642XX.915X.00000	1.73	4.25	3.72	2.64	1.22	1/2	0.53
82643XX.915X.00000	1.97	4.53	3.90	3.15	1.44	3/4	0.55
82644XX.915X.00000	2.44	4.88	4.08	3.74	1.73	1	0.67
82645XX.940X.00000	3.62	7.32	6.18	5.20	2.36	1-1/4	0.67
82646XX.940X.00000	3.62	7.32	6.18	5.02	2.36	1-1/2	0.67
82647XX.940X.00000	4.29	7.93	6.58	6.30	2.91	2	0.69

2/2-way valves DN 15 to DN 25

For neutral gases and liquids

pressure actuated by external fluid

Seat valves / actuator size $\varnothing = 1.97$ inch

Internal threads 1/2" to 1" NPT

Operating pressure range: see valves specifications

Technical Data

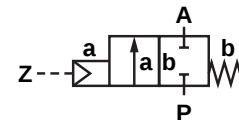
Flow direction: fixed
Mounting position: optional

Flow fluid range

Fluid temperature: 14°F up to max. 356°F
Ambient temperature: 14°F up to max. 140°F
Material body: zinc free brass (CW602N)
Seat seal: PTFE
Internal parts: Brass, stainless steel
Spindle sealing: PTFE / FPM self-adjustable

Pilot fluid range

Pilot connection: 1/4" NPT
Pilot fluid: neutral gaseous fluids
Fluid temperature: max. 140°F
Material body: Polyamid 66 with glass fiber 30%
Seat seals: NBR
Internal parts: Brass, stainless steel



Valve specifications

Item ships in two days

Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi *			
					Normally closed PTFE	Normally open max. operating pressure**	Double electrical position indicator ***	Namur interface plate
					00	01	23	50
1/2	9/16	15	5.8	84732XX.0000.00000	0 - 232	0 - 232	0 - 232	0 - 232
3/4	3/4	20	12.0	84733XX.0000.00000	0 - 116	0 - 116	0 - 116	0 - 116
1	1	25	16.8	84734XX.0000.00000	0 - 72.5	0 - 72.5	0 - 72.5	0 - 72.5

* Pilot pressure 50.8 - 145 psi; with gaseous and liquid fluids up to 600 cSt (mm²/s)

** Pilot pressure 14.5 - 145 psi (for version NO)

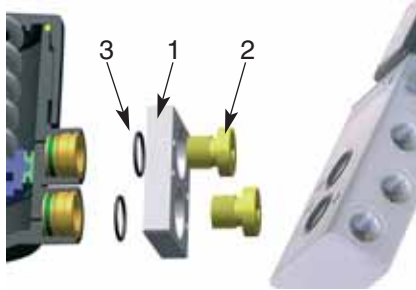
*** with micro switches



Note: For hazardous areas, e. g. Zone 1/2 or 21/22, the kit 1264287 is required. It contains an additional sign, a silencer as dust shield and a conformity explanation. The maximum fluid temperature is reduced to 185° F.

2/2-way valves DN 15 to DN 25

Drawing 1

**Mounting accessories ships in two days**

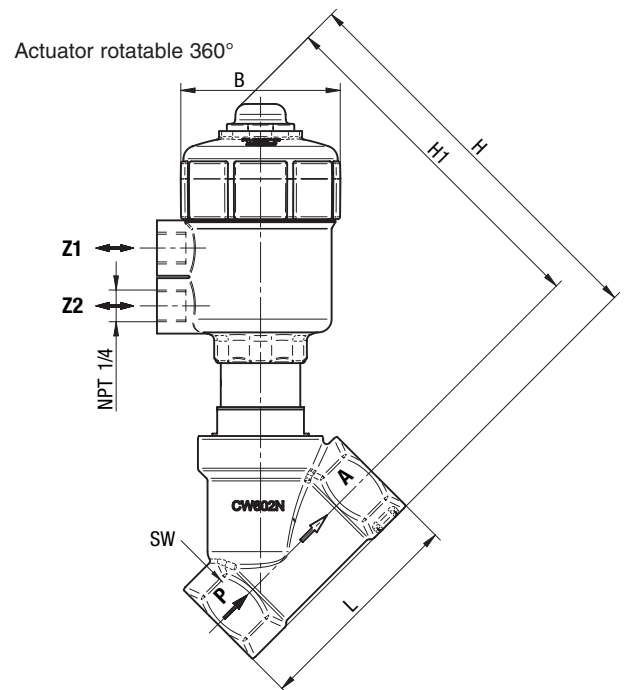
For NAMUR pilot valve please contact us.

Cat.- No.:	1256566	see drawing 1
Interface plate NAMUR hole pattern for retrofit consist of:		
1x NAMUR interface plate (1)		
2x Adapter screw (2)		
2x O-ring (3)		
Cat.- No.:	1257000	see drawing 2
Double electrical position indicator with micro switches for retrofit		

Drawing 2

**Further options on request:**

- double acting actuator
- several seals: NBR, FPM, EPDM
- stroke limiter
- silencer
- inductive position indicator
- position indicator acc. to NAMUR EN 50227
- for 3/2-way pilot valves see type 84670

**Service Kits**

For valve type	Cat.-No.
8473200	1260318
8473300	1260566
8473400	1260568

Dimensions (inches)

Model	Size	L	B	H	H1	SW
84732XX.0000.00000	1/2	2.56	2.60	6.06	5.53	1.06
84733XX.0000.00000	3/4	2.95	2.60	6.30	5.69	1.26
84734XX.0000.00000	1	3.54	2.60	6.73	5.93	1.61

2/2-way valves DN 15 to DN 25

For aggressive gases and liquids

pressure actuated by external fluid

Seat valves / actuator size $\varnothing = 1.97$ inch

Internal threads 1/2" to 1" NPT

Operating pressure range: see valves specifications

Technical Data

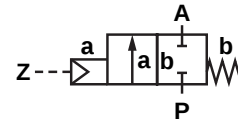
Flow direction: fixed
Mounting position: optional

Flow fluid range

Fluid temperature: 14°F up to max. 356°F
Ambient temperature: 14°F up to max. 140°F
Material body: Stainless steel
Seat seal: PTFE
Internal parts: Stainless steel
Seal packing: PTFE, FPM, self-adjustable

Pilot fluid range

Pilot connection: 1/4" NPT
Pilot fluid: neutral gaseous fluids
Fluid temperature: max. 140°F
Material body: Polyamid 66 with glass fiber 30%
Seat seals: NBR
Internal parts: Brass, stainless steel, 1.8159, 1.1200



Valve specifications **Item ships in two days**

Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi *			
					Normally closed PTFE	Normally open max. operating pressure**	Double electrical position indicator ***	Namur interface plate
					00	01	23	50
1/2	9/16	15	5.8	84752XX.0000.00000	0 - 232	0 - 232	0 - 232	0 - 232
3/4	3/4	20	12.0	84753XX.0000.00000	0 - 116	0 - 116	0 - 116	0 - 116
1	1	25	16.8	84754XX.0000.00000	0 - 72.5	0 - 72.5	0 - 72.5	0 - 72.5

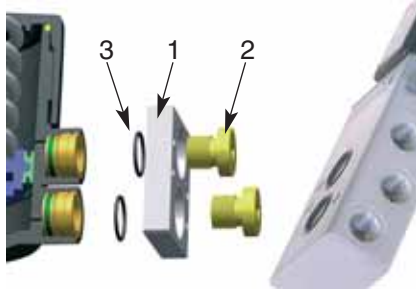
* Pilot pressure 50.8 - 145 psi; with gaseous and liquid fluids up to 600 cSt (mm²/s)

** Pilot pressure 14.5 - 145 psi (for version NO)

*** With micro switches

2/2-way valves DN 15 to DN 25

Drawing 1

**Mounting accessories ships in two days**

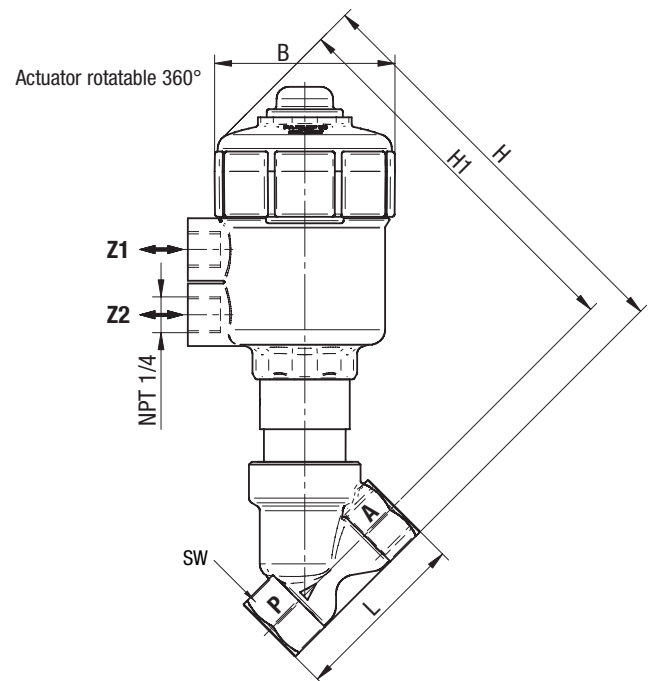
For NAMUR pilot valve please contact us.

Cat.- No.:	1256566	see drawing 1
Interface plate NAMUR hole pattern for retrofit consist of:		
1x NAMUR interface plate (1)		
2x Adapter screw (2)		
2x O-ring (3)		
Cat.- No.:	1257000	see drawing 2
Double electrical position indicator with micro switches for retrofit		

Drawing 2

**Further options on request:**

- double acting actuator
- several seals: NBR, FPM, EPDM
- stroke limiter
- silencer
- inductive position indicator
- position indicator acc. to NAMUR EN 50227
- for 3/2-way pilot valves see type 84670

**Service Kits**

For valve type	Cat.-No.
8475200	1260581
8475300	1260583
8475400	1260585

Dimensions (inches)

Model	Size	L	B	H	H1	SW
84752XX.0000.00000	1/2	2.56	2.60	6.06	5.53	1.06
84753XX.0000.00000	3/4	2.95	2.60	6.30	5.69	1.26
84754XX.0000.00000	1	3.54	2.60	6.73	5.93	1.61

Notes for Pressure Equipment Directive see page 28

2/2-way valves DN 15 to DN 50

for neutral gases and liquids

pressure actuated by external fluid

Seat valves / actuator size $\varnothing = 2.76$ inch

Internal threads 1/2" to 2" NPT

Operating pressure range: see valves specifications

Technical Data

Flow direction: fixed

Mounting position: optional

Flow fluid range

Fluid temperature: 14°F up to max. 356°F

Ambient temperature: 14°F up to max. 140°F

Material body: zinc free brass (CW602N)

Seat sea: PTFE

Internal parts: Brass, stainless steel

Spindle sealing: PTFE / FPM self-adjustable

Pilot fluid range

Pilot connection: 1/4" NPT

Pilot fluid: neutral gaseous fluids

Fluid temperature: max. 140°F

Material body: Polyamid 66 with glass fiber 30%

Seat seals: NBR

Internal parts: Brass, stainless steel



Valve specifications Item ships in two days

Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi *			
					Normally closed PTFE	Normally open max. operating pressure**	Double electrical position indicator ***	Namur interface plate
					00	01	23	50
1/2	9/16	15	5.8	84512XX.0000.00000	0 - 232	0 - 232	0 - 232	0 - 232
3/4	3/4	20	12.0	84513XX.0000.00000	0 - 145	0 - 145	0 - 145	0 - 145
1	1	25	16.8	84514XX.0000.00000	0 - 145	0 - 145	0 - 145	0 - 145
1-1/4	1-1/4	32	27.6	84515XX.0000.00000	0 - 101	0 - 101	0 - 101	0 - 101
1-1/2	1-1/2	40	36.0	84516XX.0000.00000	0 - 65	0 - 65	0 - 65	0 - 65
2	2	50	44.4	84517XX.0000.00000	0 - 43	0 - 43	0 - 43	0 - 43

* Pilot pressure 50.8 - 145 psi; with gaseous and liquid fluids up to 600 cSt (mm2/s)

** Pilot pressure 14.5 - 145 psi (for version NO)

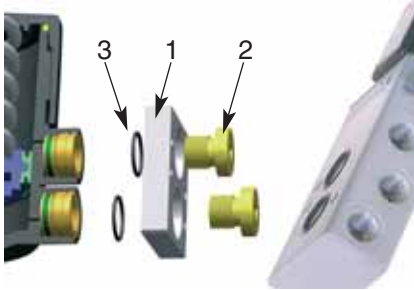
*** With micro switches



Note: For hazardous areas, i.e. Zone 1/2 or 21/22, the kit 1264287 is required. It contains an additional sign, a silencer as dust shield and a conformity explanation. The maximum fluid temperature is reduced to 185° F.

2/2-way valves DN 15 to DN 50

Drawing 1



Mounting accessories ships in two days

For NAMUR pilot valve please contact us.

Cat.- No.:	1256566	see drawing 1
Interface plate NAMUR hole pattern for retrofit consist of:		
1x NAMUR interface plate (1)		
2x Adapter screw (2)		
2x O-ring (3)		
Cat.- No.:	1257000	see drawing 2
Double electrical position indicator with micro switches for retrofit		

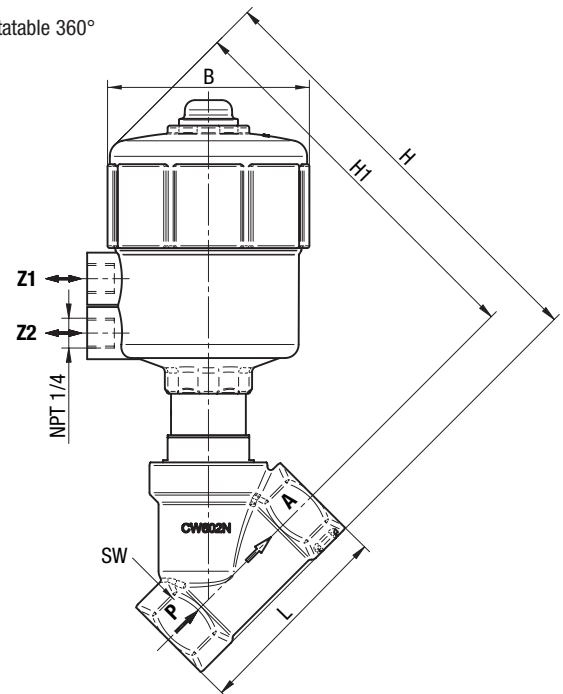
Drawing 2



Further options on request:

- double acting actuator
- several seals: NBR, FPM, EPDM
- stroke limiter
- silencer
- inductive position indicator
- position indicator acc. to NAMUR EN 50227
- for 3/2-way pilot valves see type 84670
- Higher operating pressure up to 362 psi

Actuator rotatable 360°



Service Kits

For valve type	Cat.-No.
8451200	1256694
8451300	1256695
8451400	1256696
8451500	1256697
8451600	1256698
8451700	1256699

Dimensions (inches)

Model	Size	L	B	H	H1	SW
84512XX.0000.00000	1/2	2.56	3.52	6.99	6.46	1.06
84513XX.0000.00000	3/4	2.95	3.52	7.24	6.61	1.26
84514XX.0000.00000	1	3.54	3.52	7.66	6.85	1.61
84515XX.0000.00000	1-1/4	4.33	3.52	8.25	7.26	1.97
84516XX.0000.00000	1-1/2	4.72	3.52	8.21	7.32	2.17
84517XX.0000.00000	2	5.91	3.52	9.04	7.66	2.76

Notes for Pressure Equipment Directive see page 28

2/2-way valves DN 15 to DN 50

For aggressive gases and liquids

pressure actuated by external fluid

Seat valves / actuator size $\varnothing = 2.76$ inch

Internal threads 1/2" to 2" NPT

Operating pressure range: see valves specifications

Technical Data

Flow direction: fixed

Mounting position: optional

Flow fluid range

Fluid temperature: 14°F up to max. 356°F

Ambient temperature: 14°F up to max. 140°F

Material body: Stainless steel

Seat seal: PTFE

Internal parts: Sandvik 1802

Seal packing: PTFE / FPM self-adjustable

Pilot fluid range

Pilot connection: 1/4" NPT

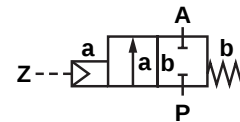
Pilot fluid: neutral gaseous fluids

Fluid temperature: max. 140°F

Material body: Polyamid 66 with glass fiber 30%

Seat seals: NBR

Internal parts: Brass, stainless steel, 1.8159, 1.1200



Valve specifications **Item ships in two days**

Port size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi *			
					Normally closed PTFE	Normally open max. operating pressure**	Double electrical position indicator ***	Namur interface plate
					00	01	23	50
1/2	9/16	15	5.8	84532XX.0000.00000	0 - 232	0 - 232	0 - 232	0 - 232
3/4	3/4	20	12.0	84533XX.0000.00000	0 - 145	0 - 145	0 - 145	0 - 145
1	1	25	16.8	84534XX.0000.00000	0 - 145	0 - 145	0 - 145	0 - 145
1-1/4	1-1/4	32	27.6	84535XX.0000.00000	0 - 101	0 - 101	0 - 101	0 - 101
1-1/2	1-1/2	40	36.0	84536XX.0000.00000	0 - 65	0 - 65	0 - 65	0 - 65
2	2	50	44.4	84537XX.0000.00000	0 - 43	0 - 43	0 - 43	0 - 43

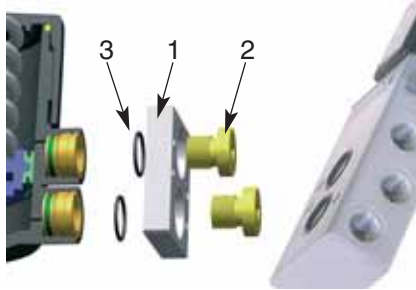
* Pilot pressure 50.8 - 145 psi; with gaseous and liquid fluids up to 600 cSt (mm2/s)

** Pilot pressure 14.5 - 145 psi (for version N0)

*** With micro switches

2/2-way valves DN 15 to DN 50

Drawing 1

Mounting accessories **ships in two days**

For NAMUR pilot valve please contact us.

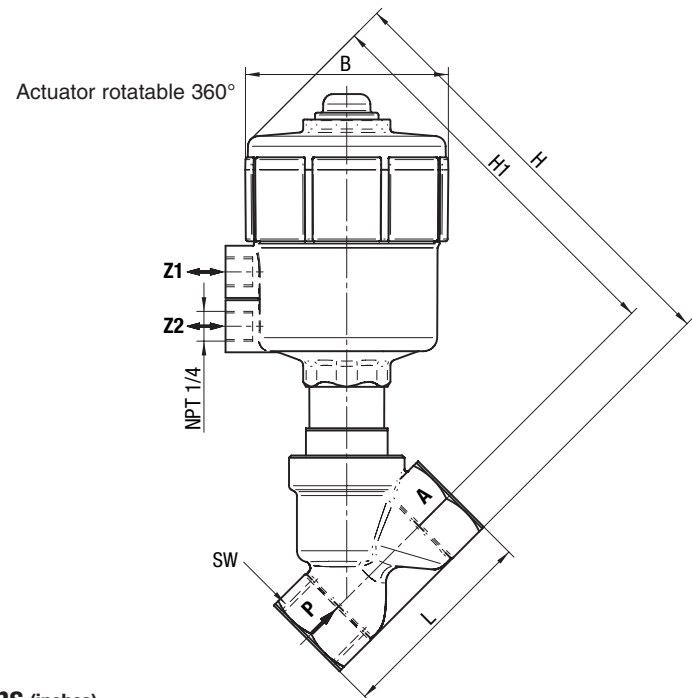
Cat.- No.:	1256566	see drawing 1
Interface plate NAMUR hole pattern for retrofit consist of:		
1x NAMUR interface plate (1)		
2x Adapter screw (2)		
2x O-ring (3)		
Cat.- No.:	1257000	see drawing 2
Double electrical position indicator with micro switches for retrofit		

Drawing 2



Further options on request:

- double acting actuator
- several seals: NBR, FPM, EPDM
- stroke limiter
- silencer
- inductive position indicator
- position indicator acc. to NAMUR EN 50227
- for 3/2-way pilot valves see type 84670
- Higher operating pressure up to 580 psi



Service Kits

For valve type	Cat.-No.
8453200	1256700
8453300	1256701
8453400	1256702
8453500	1256703
8453600	1256704
8453700	1256705

Dimensions (inches)

Model	Size	L	B	H	H1	SW
84532XX.0000.00000	1/2	2.56	3.52	6.99	6.46	1.06
84533XX.0000.00000	3/4	2.95	3.52	7.24	6.61	1.26
84534XX.0000.00000	1	3.54	3.52	7.66	6.85	1.61
84535XX.0000.00000	1-1/4	4.33	3.52	8.25	7.26	1.97
84536XX.0000.00000	1-1/2	4.72	3.52	8.21	7.32	2.17
84537XX.0000.00000	2	5.91	3.52	9.04	7.66	2.76

Notes for Pressure Equipment Directive see page 28

3/2-way valves DN 1.6 and DN 3.0

Pilot valve for pressure actuated valve by external fluid

Indirectly solenoid actuated, Seat valves

Connection P female thread 1/4 NPT;

Connection A male thread 1/4 NPT

Technical Data

Solenoid valve for filtered, lubricated resp. non-lubricated air or neutral liquid fluids

Operating pressure: 14.5 to 145 psi

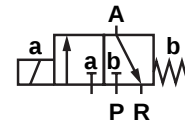
Switching function: P-port closed

Flow direction: determined

Fluid temperature: 14°F up to max. 140°F

Ambient temperature: 14°F up to max. 140°F

Mounting position: optional, preferably solenoid vertical on top



Material

Body: Brass

Seat seal: TPU

Internal parts: Stainless steel, PPS

For contaminated fluids insertion of a strainer is recommended

Valve specifications **Item ships in two days**

Size NPT	Orifice inch	Orifice mm	Cv	Cat.-No.	Operating pressure psi		
					Normally closed TPU	Normally open	Manual override
					00	01	02
1/4	1/16	1.6	1.44	84670XX.9101.00000	14.5 - 145	14.5 - 145	14.5 - 145
1/4	7/64	3.0	3.96	84690XX.9151.00000	14.5 - 145	14.5 - 145	14.5 - 145

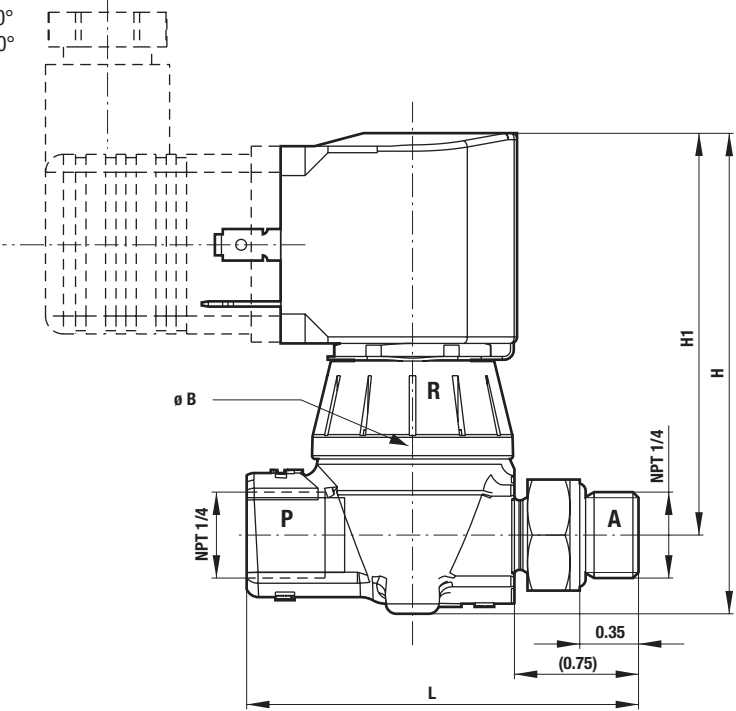
When ordering please select voltage i.e.:8467000.9101.12060 for voltage 120V 60Hz or 8467000.9101.02400 for voltage 24V DC

Solenoid 9101 / 9151

Standard voltages			Power consumption			
DC	AC		Solenoid	DC	AC	
	50Hz	60Hz			Inrush	Holding
24V	24V	—	9101	8W	15VA	12VA
—	110V	120V	9151	18W	45VA	35VA
—	230V	220V				
Voltage range +/-10%, 100% duty cycle Protection class acc. to EN 60529 IP65 / Nema 4x Socket acc. to DIN EN 175301-803 (included) Solenoids acc. to UR and CSA standards			Solenoids on stock: Cat.-No. 0000000.9101.02400 24V DC 0000000.9101.12060 120V 60Hz			

3/2-way valves DN 1.6 and DN 3.0

Solenoid rotatable 360°
Socket turnable 4 x 90°
(Socket included)



Further options on request:

- other voltages

Service Kits

For valves	Cat.-No.
8467000	1260613
8469000	1260615

Dimensions (inches)

Model	L	H	H1	B	R
8467000.9101.00000	2.36	2.90	2.42	1.22	1/4
8469000.9151.00000	2.36	3.58	3.11	1.22	1/4

Notes for Pressure Equipment Directive see page 28

Allocation map

for Pressure Equipment Directive (PED)

to series 82740, 82630, 82570, 84670 and 84690

Note to Pressure Equipment Directive (PED):

The valves of this series are according to Art. 3 § 3 of the Pressure Equipment Directive (PED) 97/23/EG.

This means interpretation and production are in accordance to engineers practice well known in the member countries.

The CE-sign at the valve does not refer to the PED. Thus the declaration of conformity is no longer applicable for this directive.

Note to Electromagnetic Compatibility Guideline (EEC):

The valves shall be provided with an electrical circuit which ensures the limits of the harmonized standards EN 50081-1 and EN 50082-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (89/336/EEC) satisfied.

to series 82410, 82640, 85310, 85330, 84730, 84750, 84510 and 84530

Note to Pressure Equipment Directive (PED):

The valves of this series, including the connection-size DN 25 (G1), are according to Art. 3 § 3 of the Pressure Equipment Directive (PED) 97/23/EG. This means interpretation and production are in accordance to engineers practice well known in the member countries.

The CE-sign at the valve refers not to the PED. Thus the declaration of conformity is no longer applicable for this directive.

For valves > DN 25 (G 1) Art. 3 § (1) No.1.4 applies.

The basic requirements of the Enclosure I of the PED must be fulfilled. The CE-sign at the valve includes the PED.

A certificate of conformity of this directive will be available on request.

Note to Electromagnetic Compatibility Guideline (EEC):

The valves shall be provided with an electrical circuit which ensures the limits of the harmonized standards EN 50081-1 and EN 50082-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (89/336/EEC) satisfied.

Conversion Factors

VOLUME								
from/to	cm ³	liter	in ³	ft ³	fl oz	pt.	qt.	gal
cm ³	1	.001	0.06102	3.53 x 10 ⁻⁵	.03381	.00211	0.106	2.64 x 10 ⁻¹
liter	1000	1	61.02	0.03532	33.81	2.113	10.057	.2642
in ³	16.39	0.01639	1	5379 x 10 ⁻⁴	.5541	.03463	0.01732	.00433
ft ³	2.83 x 10 ⁴	28.32	1728	1	957.5	59.84	29.92	7.481
fl oz	29.57	0.02957	1.805	0.00104	1	.06250	.03125	.00781
pt	473.2	0.4732	28.88	0.01671	16	1	0.500	0.1250
qt	946.4	0.9463	57.75	0.03342	32	2	1	0.2500
gal (US)	3785	3.785	231	0.1337	128	8	4	1

PRESSURE							
from/to	mm Hg	in Hg	in H ₂ O	ft H ₂ O	atm	lb/in ²	kg/cm ²
mm Hg	1	0.03937	0.5353	0.04460	.00132	0.01934	.00136
in Hg	25.40	1	13.60	1.133	.03342	0.4912	0.03453
in H ₂ O	1.868	0.07355	1	0.08333	0.00246	0.03613	0.00254
ft H ₂ O	22.42	0.8826	12	1	0.02950	0.4335	0.03048
atm	760	29392	406.8	33.9	1	14.70	1.033
lb/in ²	51.71	2.036	27.67	2.307	0.06805	1	0.07031
kg/cm ²	735.6	28.96	393.7	32.81	0.9678	14.22	1
bar	750.0	29.53	401.32	33.46	0.98592	14.504	1.01978
MPa	7500	295.3	4013.2	334.6	9.8592	145.04	10.1978

LENGTH						
from/to	cm	m	km	in	ft.	mile
cm	1	0.01	1 x 10 ⁻⁵	0.3937	0.03281	6.21 x 10 ⁻⁶
m	100	1	0.001	39.37	3.281	6.21 x 10 ⁻⁴
km	1 x 10 ⁵	1000	1	3.94 x 10 ⁴	3281	0.6214
in	2.540	0.02540	2.54 x 10 ⁻⁵	1	0.08333	1.58 x 10 ⁻⁵
ft	30.48	0.3048	3.05 x 10 ⁻⁴	12	1	1.89 x 10 ⁻⁴
mile	1.61 x 10 ⁵	1609	1.609	6.34 x 10 ⁴	5280	1

ENERGY					
from/to	BTU	Cal	Joule	Hp. hr.	Kw hr.
BTU	1	252.0	1055	3.93 x 10 ⁻⁴	2.93 x 10 ⁻⁴
Cal	0.397	1	4.186	1.56 x 10 ⁻⁵	1.16 x 10 ⁻⁵
joule	9.48 x 10 ⁻⁴	0.2389	1	3.73 x 10 ⁻⁷	2.78 x 10 ⁻⁷
Hp hr	2545	6.41 x 10 ⁵	2.68 x 10 ⁶	1	0.7457
Kw hr	3413	8.60 x 10 ⁵	3.60 x 10 ⁶	1.341	1

AREA					
from/to	cm ⁴	m ²	km ²	in ²	ft ²
cm ²	1	0.0001	1 x 10 ⁻¹⁰	0.1550	0.00108
m ²	1 x 10 ⁴	1	1 x 10 ⁻⁵	1550	10.76
km ²	1 x 10 ¹⁰	1 x 10 ⁵	1	1.55 x 10 ⁹	1.08 x 10 ⁷
in ²	6.452	6.45 x 10 ⁻⁴	6.45 x 10 ⁻¹⁰	1	0.00694
ft ²	929.00	0.09290	9.29 x 10 ⁻⁸	144	1

FLOWS				
from/to	1 scfm	1 L/min	1 cm ³ /sec	1 dm ³ /sec
1 scfm	1	28.32	471.95	.472
1 L/min	0.035	1	16.67	0.0167
1 cm ³ /sec	0.0021	0.06	1	.001
1 dm ³ /sec	2.1	0.00006	1000	1

TEMPERATURE COMPARISON

-100°C to +300°C			
°C	°F	°C	°F
-100	-148	29	84.2
-90	-130	30	86.0
-80	-112	31	87.8
-70	-94	32	89.6
-60	-76	33	91.4
-50	-58	34	93.2
-40	-40	35	95.0
-35	-31	36	96.8
-30	-22	37	98.6
-25	-13	38	100.4
-20	-4	39	102.2
-15	5	40	104.0
-10	14	45	113
-5	23	50	122
0	32	55	131
1	33.8	60	140
2	35.6	65	149
3	37.4	70	158
4	39.2	75	167
5	41	80	176
6	42.8	85	185
7	44.6	90	194
8	46.4	95	203
9	48.2	100	212
10	50	110	230
11	51.8	120	248
12	53.6	130	266
13	55.4	140	284
14	57.2	150	302
15	59	160	320
16	60.8	170	338
17	62.6	180	356
18	64.4	190	374
19	66.2	200	392
20	68	210	410
21	69.8	220	428
22	71.6	230	446
23	73.4	240	464
24	75.2	250	482
25	77	260	500
26	78.8	270	518
27	80.6	280	531
28	82.4	290	554
		300	572

TEMPERATURE CONVERSION

$$\begin{aligned} ^\circ\text{C} &= 5/9 (^{\circ}\text{F} - 32) \\ ^\circ\text{F} &= 9/5 (^{\circ}\text{C} + 32) \\ ^\circ\text{K} &= ^\circ\text{C} + 273.2 \\ ^\circ\text{R} &= ^\circ\text{F} + 459.7 \end{aligned}$$

WEIGHT				
from/to	gm	kg	oz	lb
gm	1	0.001	0.03527	0.00220
kg	1000	1	35.27	2.205
oz	28.35	0.02835	1	0.06250
lb	453.6	0.4536	16	1

Notes

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **Specifications**.

Before using these products with fluids other than those specified, for nonindustrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure modes. **System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.**

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products. System designers should also provide for all OSHA requirements including Title 29 CFR 1910.147 Lockout/Tagout.

It should be recognized that warnings are valid for any product, regardless of manufacturer, and are not restricted to products manufactured by NORGREN. NORGREN's reputation for product quality and performance is well established. We feel we have the additional obligation to provide information or warnings to customers to assist them in applying our products in a reasonable and safe manner.

Warranty

Items sold by NORGREN are warranted to be free from defects in materials and workmanship for a period of two year from the date of manufacture, provided said items are used according to NORGREN's recommended usages. NORGREN's liability is limited to the repair of, refund of purchase price paid for, or replacement in kind of, at NORGREN's sole option, any items proved defective, provided the allegedly defective items are returned to NORGREN prepaid. The warranties expressed above are in lieu of and exclusive of all other warranties.

There are no other warranties, expressed or implied, except as stated herein. There are no implied warranties of merchantability or fitness for a particular purpose, which are specifically disclaimed. NORGREN's liability for breach of warranty as herein stated is the exclusive remedy, and in no event shall NORGREN be liable or responsible for incidental or consequential damages, even if the possibility of such incidental or consequential damages has been made known to NORGREN.

NORGREN reserves the right to discontinue manufacture of any product or change product materials, design, or specifications.



» Solutions for
fluid control
and pneumatic
motion



Norgren Worldwide

- | | |
|------------------------|---------------|
| » AUSTRALIA | » IRELAND |
| » AUSTRIA | » ITALY |
| » BELGIUM & LUXEMBOURG | » JAPAN |
| » BRAZIL | » MALAYSIA |
| » CANADA | » MEXICO |
| » CHINA | » NETHERLANDS |
| » CZECH REPUBLIC | » NEW ZEALAND |
| » DENMARK | » NORWAY |
| » EASTERN EUROPE | » POLAND |
| » FINLAND | » SINGAPORE |
| » FRANCE | » SLOVENIA |
| » GERMANY: NORTH | » SPAIN |
| » GERMANY: SOUTH | » SWEDEN |
| » HONG KONG | » SWITZERLAND |
| » HUNGARY | » UK |
| » INDIA | » USA |

Supported by distributors worldwide

For complete contact information visit:

www.norgren.com

Norgren Fluid Controls

72 Spring Lane
Farmington, CT 06032 USA
Ph: 860.677.0272
800.722.5547
Fax: 860.677.4999

The logo, 'Norgren' and 'IMI' are
registered trade marks
© Norgren 2007.
Due to our policy of continuous
development, Norgren reserve
the right to change specifications
without prior notice.

NA-300 3m 7/07

IMI a subsidiary of IMI plc