Ordering Guide

Ordering Guide

lydraulic Control Valve with Flow Stem

nnection	Cat, No.				
		Units per Case	Weight (kg)	Volume (m³)	
	10515YP0BP000M0	10	8.00	0.0367	
	10502YP0BP000M0	10	8.20	0.0367	
aded BSP	1052LYP0BP000M0	6	8.80	0.0525	
	10525YP0BP000M0	6	9.00	0.0525	
	10503YP0BP000M0	6	12.20	0.5250	
ed (Metal)	10503YP0CC000M0	2	10.00	0.0367	



Ordering Guide

August 2010



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About BERMAD



Founded in 1965, BERMAD knows the value of a single drop of water and how best to reap its full advantage. Today BERMAD serves global customers in a wide range of fields, anywhere in the world.

BERMAD - Provider of Solutions

Combining its expertise, leading-edge technology and precision engineering, BERMAD provides customized solutions for the control and management of water/fluid treatment and supply.

Main areas of activity include:

Landscape – Serving irrigation management professionals, BERMAD provides solutions for the full range of landscape water management applications.

The BERMAD landscape system offers water management professionals straightforward irrigation solutions for every application from professional golf courses, sports fields and schools, to parks, commercial centers and home gardens.

Waterworks - National, regional and municipal distribution networks, high-rise buildings and luxury hotels, water systems at industrial facilities, power stations.

Fire Protection - Factories and industrial yards, high-rise and public buildings, hazardous zones at oil and gas facilities, power plants, off-shore installations, aviation and marine environments, refineries.

Petroleum – Petroleum distribution terminals, tank farms.

Irrigation – Main networks for agricultural projects, purified waste water projects, central control-head and infield networks, greenhouses, commercial and residential gardening.

Water Metering – Bulk in water supply systems.

Efficiency and Quality - BERMAD's Core Competencies

BERMAD's workforce includes over 450 highly skilled personnel. Computerized systems (Oracle ERP) enable full control and management at all levels of production, marketing and shipment, while ensuring rapid turnaround and always-on-schedule delivery. Strict Quality Assurance keeps BERMAD in compliance with ISO 9001-2000 and a range of international quality and ecology standards.

BERMAD - A Worldwide Presence

With 9 subsidiaries throughout the world, and operations in over 80 countries on 5 continents, BERMAD has a formidable global presence. Its worldwide customer training facilities and parts distribution networks ensure uninterrupted customer service anywhere in the world.

Precision Engineering - A BERMAD Commitment

Comprehensive fluid management systems are only as effective as their smallest component. That's why BERMAD systems are based on components designed, developed and manufactured in-house, with the ability to adapt solutions to any customer need; constantly integrating the latest, most reliable manufacturing techniques, and providing every customer with the most comprehensive commercial and technical support in the world.

BERMAD - a global leader in managing the world's most precious resources



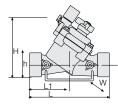


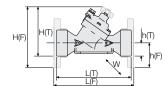
100 Series - Technical Specifications

Dimensions and Weights

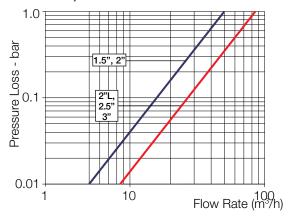
Sizes D	N	40	50	50	50L	65	8	0
Pattern		Y	Υ	Y	Υ	Y	Υ	Υ
End Co	nnections	Rc 1 ¹ / ₂ (BSP.T)	G 2 (BSP.F)	Rc 2 (BSP.T)	Rc 2 (BSP.T)	G 21/2 (BSP.F)	Rc 2 (BSP.T)	Universal Flanges
Liid Oo	inconons	11/2" NPT	Male	2" NPT	2" NPT	Male	3" NPT	Metal
L	(mm)	200	200	200	230	230	298	308
Н	(mm)	156	156	156	170	170	180	240
h	(mm)	40	40	40	40	40	50	100
W	(mm)	97	97	97	135	135	190	100
CCDV	(LIT)	0.15	0.15	0.15	0.2	0.2	0.2	0.2
Weight	(Kg)	0.8	0.8	0.8	1.35	1.4	1.6	4.4

CCDV = Control Chamber Displacement Volume





100 Series, Control Valves "Y" Pattern



Flow Properties

Sizes DN	40	50	50L	65	80
Pattern	Υ	Υ	Υ	Υ	Υ
KV	50	50	100	100	100
CV	58	58	115	115	115

Technical Specifications

Available Patterns & Sizes:

DN: 40, 50, 50L, 65, 80

Available End Connections:

Threaded: Female BSP-T/NPT DN: 40, 50, 50L, 80

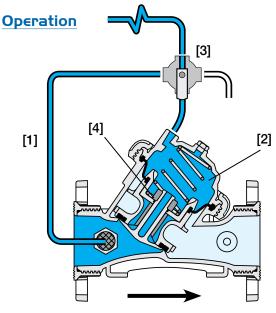
Male BSP-F DN: 50, 65

4 Flanged: DN 80

Metal "Corona" with elongated slots

enables the meeting of diverse flange standards ISO

PN10, ANSI 125, JIS 10K



Line Pressure [1] is applied to the Control Chamber [2] through the Manual Selector [3]. This creates superior closing force that moves the Diaphragm Assembly [4] toward a closed position.

The discharge of pressure from the control chamber causes the line pressure acting on the diaphragm assembly to move the valve to an open position.

Pressure Rating: 10 bar

Operating Pressure Range: 0.5-10 bar Temperature Range: Water up to 60°C

Standard Materials:

■ Body, Cover and Plug: Glass-Filled Nylon

■ Diaphragm: NBR [Buna–N], Reinforced Nylon Fabric

Seals: NBR [Buna-N]Spring: Stainless Steel

Cover bolts DN: 40, 50, 50L, 65 & 80



High Performance Plastic Control BERMAD Valves I 1/2", 2", 2"L, 2 1/2", 3"

100 Series hyflow

BERMAD Hydraulic Control Valve with Flow Stem

105-M

Si	z€		
Inch	mm	Connection	Cat. No.
1½"	40		10515YP0BP000M0
2"	50		10502YP0BP000M0
2"L	50	Threaded BSP	1052LYP0BP000M0
21/2"	65		10525YP0BP000M0
3"	80		10503YP0BP000M0
3"	80	Flanged (Metal)	10503YP0CC000M0

Units per Case	W∈ight (kg)	Volume (m³)			
10	8.00	0.0367			
10	8.20	0.0367			
6	8.80	0.0525			
6	9.00	0.0525			
6	12.20	0.5250			
2	10.00	0.0367			



BERMAD Solenoid Controlled Valve

with 2-Way Internal Control & Flow Stem

Solenoid S-390-2W-24V/AC

Si	z€		
Inch	mm	Connection	Cat. No.
1½"	40		11015YP2BPN10M0
2"	50		11002YP2BPN10M0
2"L	50	Threaded BSP	1102LYP2BPN10M0
21/2"	65		11025YP2BPN10M0
3"	80		11003YP2BPN10M0
3"	80	Flanged (Metal)	11003YP2CCN10M0

Units per Case	W∈ight (kg)	Volume (m³)			
10	9.70	0.0367			
10	9.80	0.0367			
6	9.60	0.0525			
6	9.80	0.0525			
6	13.00	0.0525			
2	10.50	0.0525			

IIO-N-2W-M



BERMAD Solenoid Controlled Valve with Flow Stem

Solenoid S-390-3W-24V/AC

Siz€			
Inch	mm	Connection	Cat. No.
1½"	40		11015YP3BP000M8-S390
2"	50		11002YP3BP000M8-S390
2"L	50	Threaded BSP	1102LYP3BP000M8-S390
2½"	65		11025LYP3BP000M8-S390
3"	80		11003YP3BP000M8-S390
3"	80	Flanged (Metal)	11003YP3CC000M8-S390

Units per Case	W∈ight (kg)	Volume (m³)			
10	10.50	0.0367			
10	10.30	0.0367			
6	10.20	0.0525			
6	10.30	0.0525			
6	13.20	0.0525			
2	11.10	0.0525			

IIO-3W-M



BERMAD Pressure Reducing Valve

with 2-Way Solenoid Control & Flow Stem

Solenoid S-390-2W-24V/AC

Siz€			
Inch	mm	Connection	Cat. No.
1½"	40		12015YP2BP550M8
2"	50		12002YP2BP550M8
2"L	50	Threaded BSP	1202LYP2BP550M8
21/2"	65		12025YP2BP550M8
3"	80		12003YP2BP550M8
3"	80	Flanged (Metal)	12003YP2CC550M8

Units per	Weight	Volum∈	
Case	(kg.)	(m²)	
6	7.80	0.0525	
6	8.00	0.0525	
6	8.20	0.0525	
4	8.60	0.0525	
4	9.60	0.0525	
2	11.20	0.0525	

120-55-2W-M







High Performance Plastic Control BERMAD Valves 11/2",2", 2"L, 21/2", 3"

100 Series hyflow

BERMAD Latching Solenoid Controlled Valve

with 2W Internal Controls & Flow Stem

IIO-LS-2W-M



Si	z€		
Inch	mm	Connection	Cat. No.
1½"	40		11015YP9BPN10M0
2"	50		11002YP9BPN10M0
2"L	50	Threaded BSP	1102LYP9BPN10M0
21/2"	65		11025YP9BPN10M0
3"	80		11003YP9BPN10M0
3"	80	Flanged (Metal)	11003YP9CCN10M0

Units per	W∈ight	Volum∈		
Case	(kg)	(m³)		
10	9.70	0.0367		
10	9.80	0.0367		
6	9.60	0.0525		
6	9.80	0.0525		
6	13.00	0.0525		
2	10.50	0.0525		



BERMAD Latching Solenoid Controlled Valve with Flow Stem

IIO-LS-3W-M

Solenoid S-982 Latching, I2-50V/DC

Si	z∈		
Inch	mm	Connection	Cat. No.
1½"	40		11015YPKBP000M8
2"	50		11002YPKBP000M8
2"L	50	Threaded BSP	1102LYPKBP000M8
2½"	65		11025YPKBP000M8
3"	80		11003YPKBP000M8
3"	80	Flanged (Metal)	11003YPKCC000M8

Units per Case	W∈ight (kg.)	Volume (m²)		
10	9.90	0.0367		
10	10.00	0.0367		
6	9.80	0.0525		
6	10.00	0.0525		
6	13.20	0.0525		
2	10.70	0.0525		



BERMAD Pressure Reducing Valve

with 2-Way Latching Solenoid Control, Manual Selector & Flow Stem

120-55-LS-2W-M

Solenoid S-392 Latching, 6-20V/DC

Si	z€		
Inch	mm	Connection	Cat. No.
1½"	40		12015YP2BP550M8-S-392
2"	50		12002YP2BP550M8-S-392
2"L	50	Threaded BSP	1202LYP2BP550M8-S-392
2½"	65		12025YP2BP550M8-S-392
3"	80		12003YP2BP550M8-S-392
3"	80	Flanged (Metal)	12003YP2CC550M8-S-392

Units per	Weight	Volum∈		
Case	(kg.)	(m²)		
6	7.80	0.0525		
6	8.00	0.0525		
6	8.20	0.0525		
4	8.60	0.0525		
4	9.60	0.0525		
2	11.20	0.0525		





200 Series

Plastic Hydraulic/Electronic Control Valves for residential, commercial and agricultural irrigation systems.

The BERMAD LANDSCAPE 200 Series plastic control valves range from 3/4" to 2" in size, in either globe or angle pattern. These control valves provide superior hydraulic performance, demonstrating state-of-the-art hydraulics and plastics technology.



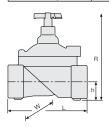
Features and Benefits



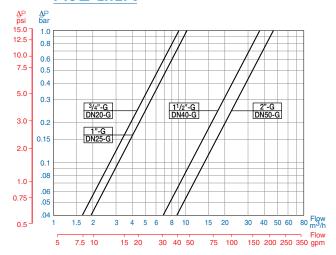
200 Series - Technical Specifications

Dimensions and Weights

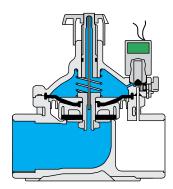
Pattern		Globe			
0:	DN	20	25	40	50
Size	inch	3/4	1	1½	2
١.	mm	110	110	160	170
-	inch	4.3	4.3	6.3	6.7
R	mm	115	115	180	190
n	inch	4.5	4.5	7.1	7.5
h	mm	22	22	35	38
"	inch	0.9	0.9	1.4	1.5
w	mm	78	78	125	125
VV	inch	3.1	3.1	4.9	4.9
\A/a:ala±	Kg.	0.35	0.33	1	1.1
Weight	lb.	0.77	0.73	2.2	2.4



Flow Chart



Operation



Closed Position

The internal restriction continuously allows line pressure into the control chamber. The solenoid controls outflow from the control chamber. When the solenoid is closed it causes pressure to accumulate in the control chamber, thereby forcing the valve to close.

Technical Specifications

Sizes: 3/4-2"; DN20-50

Patterns:

Globe: %, 1, 1½ & 2"; DN20, 25, 40 & 50 **End Connections:** Female Threads BSP or NPT

Pressure Rating: 10 bar; 145 psi

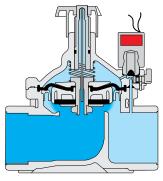
Operating Pressure Range: 0.5-10 bar; 7-145 psi

Materials:

Body, Cover and Plug: Reinforced Nylon

8 Diaphragm: NR

Seals: NBR [Buna-N] and NR Spring: Stainless Steel Cover Bolts: Stainless Steel



Open Position

Opening the Solenoid releases more flow from the control chamber than the restriction can allow in. This causes the accumulated pressure in the control chamber to drop, enabling the line pressure acting on the plug to the valve.





BERMAD Plastic Valves 3/4", I", I1/2", 2"

200 Series

BERMAD Hydraulic Control Valve with Flow Stem

205-M

Si	Z€		
Inch	mm	Connection	Cat. No.
3/4"	20		20507GP0BP000M0
1"	25	Threaded BSP	20501GP0BP000M0
1½"	40	Tilleaueu BSP	20515GP0BP000M0
2"	50		20502GP0BP000M0

Units per Case	W∈ight (kg.)	Volum∈ (m²)	
40	10.6	0.0367	
40	10.5	0.0367	
10	10.7	0.0367	
10	11.0	0.0367	



BERMAD Solenoid Controlled Valve

with 2-Way Internal Controls & Flow stem

Solenoid S-390-2W, 24V/AC

ב-כ סופווסום	30-LVV, L4 V/AC
C:	

Si	Siz€		
Inch	mm	Connection	Cat. No.
3/4"	20		21007GP2BP000M0
1"	25	Threaded BSP	21001GP2BP000M0
11/2"	40	mreaded BSP	21015GP2BP000M0
2"	50		21002GP2BP000M0

Units per Case	W∈ight (kg)	Volume (m³)	
20	7.4	0.0183	
20	7.4	0.0183	
10	11.2	0.0367	
10	11.7	0.0367	



210-2W-NC-M

BERMAD Solenoid Controlled Valve

with 3-Way Controls & Flow Stem

Solenoid S-390-3W 24V/AC

Si	z€			
Inch	mm	Connection	Cat. No.	
1½"	40		21015GP3BP000M0-S390	
2"	50	Threaded BSP	21002GP3BP000M0-S390	

Units per Case	W∈ight (kg)	Volume (m³)	
10	11.4	0.0367	
10	11.9	0.0367	

210-3M-NC-M



BERMAD Pressure Reducing Valve

with 2-Way Solenoid Control & Flow Stem

Solenoid S-390-2W 24V/AC

Si	z€		
Inch	mm	Connection	Cat. No.
1½"	40	Threaded BSP	22015GP2BP550M0
2"	50	Tilleaueu BSP	22002GP2BP550M0

Units per Case	W∈ight (kg)	Volum∈ (m³)
2	3.8	0.0306
2	4.1	0.0306

220-55-2W-M







BERMAD Plastic Valves 3/4", I", I1/2", 2"

200 Series

BERMAD Latching Solenoid Controlled Valve

with 2-Way Control & Flow St∈m

Solenoid S-392 Latching, 6-20VDC

Si	z€		
Inch	mm	Connection	Cat. No.
3/4"	20		21007GP9BP000M0
1"	25	Threaded BSP	21001GP9BP000M0
1½"	40	Inreaded BSP	21015GP9BP000M0
2"	50		21002GP9BP000M0

Units per Case	W∈ight (kg)	Volum∈ (m³)	
20	7.5	0.0183	
20	7.3	0.0183	
10	11.2	0.0367	
10	11.7	0.0367	



210-LS-2W-M

BERMAD Latching Solenoid Controlled Valve

with 3-Way Control & Flow Stem

Solenoid S-982 Latching, I2-50V/DC

Si	z∈			
Inch	mm	Connection	Cat. No.	
1½"	40	Threaded BSP	21015GPKBP000M0	
2"	50	Inreaded BSP	21002GPKBP000M0	

Units per Case	W∈ight (kg)	Volume (m³)
10	11.2	0.0367
10	11.7	0.0367





BERMAD Pressure Reducing Valve

with 2-Way Latching Solenoid Control & Flow Stem

Solenoid S-392 Latching, 6-20VDC

Si	Siz€		
Inch	mm	Connection	Cat. No.
1½"	40	Threeded DCD	22015GP2BP550M0-S392
2"	50	Threaded BSP	22002GP2BP550M0-S392

Units per Case	W∈ight (kg)	Volume (m³)
2	3.8	0.0306
2	41	0.0306

220-55-LS-2W-M





Landscape Combine Valves Series

BERMAD's landscape combination valves are designed for gardens and landscapes with an aesthetical and compact installation.

The all-in-one construction eliminates extra parts, taking up less space and easily fits into a compact valve box.

Only BERMAD offers, adjustable pressure regulator, enabling complete control over water pressure and flow.

The system connects to an irrigation controller for efficient water management. In the event of power failure, the system can be manually controlled.

Made from high quality, durable materials, BERMAD's landscape combination valves ensure long life and trouble free operation.

Every element is manufactured to international quality standards, delivering optimal performance.

BERMAD brings you the highest quality pressure regulator, filter, and electric valve in a handy all-in-one system for quick and easy assembly - no connectors needed and no tools required!



Features and Benefits

- Saves space Compact modular system is ideal for gardens and landscapes using drip or microirrigation, sprinkler systems, and more
- All-in-one One system including lowflow irrigation valve, pressure regulator, and filter (in single-piece construction), thereby reducing system components
- Quick installation Fast DIY assembly; no tools needed
- Long-lasting Manufactured from high-quality, durable materials to ensure long life and trouble free operation
- Reliable performance Each component is manufactured to the highest standards
- Cost-effective Enables tight control over water flow and usage
- Compatible Connects to most irrigation controllers for efficient water management





Landscape Combine Valves Series - Technical Specifications

Electric Filter Valve (EFV)

Technical Specifications

Body & Cover: Reinforced nylon Metal Parts: Stainless Steel

Diaphragm: NR Seals: NBR (Buna-N)

Filter Screen: Stainless Steel -130 micron

Filter Cover: Polypropylene End Connection: 1"/25 mm Inlet: Male BSP: NPT

Outlet: Female BSP-Union; NPT-Union

Pressure & Flow Rating: 10 bar:130 psi Flow Range: 0.01-3 m³/h : 0.04-13 gpm $KV = 8.08 \text{ m}^3/\text{h}$; CV = 9.33 GPM

Electrical Data

Solenoid: S-390-2W-24V/AC Holding current: 125 mA Inrush current: 250 mA Protection: NEMA4

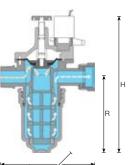
Solenoid: S-392-2W-6-20V/DC (LATCH)

Voltage Range: 6-20 V/DC Pulse Width: 20-100 mSec Recommended Capacitor: 4700 qF

Protection: NEMA4

Dimensions and Weight

Length: 4.92"/125 mm Height: 8.19"/208 mm Width: 3.15"/80 mm Weight: 0.90 lb/0.395 kg



Electric Manifold Valve (EMV)

Technical Specifications

Body & Cover: Reinforced nylon Metal Parts: Stainless Steel

Diaphragm: NR Seals: NBR (Buna-N) End Connection: 1"/25 mm Inlet: Male BSP: NPT

Outlet: Female BSP-Union; NPT-Union

Pressure & Flow Rating: 10 bar: 130 psi Flow Range: 0.01-3 m³/h: 0.04-13 gpm

KV=8.8 m³/h; CV=10.17 gpm

Electrical Data

Solenoid: S-390-24V/AC Holding current: 125 mA Inrush current: 250 mA Protection: NEMA4

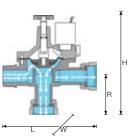
Solenoid: S-392:6-20 V/DC (LATCH)

Voltage Range: 6-20 V/DC Pulse Width: 20-100 m/Sec Recommended Capacitor: 4700 qF

Protection: NEMA4

Dimensions and Weight

Length: 4.92"/125 mm Height: 5.35"/136 mm Width: 3.15"/80 mm Weight: 0.75 lb/0.342 kg



Pressure Reducing Filter (PRF)

Technical Specifications

Body & Cover: Reinforced nylon

Metal Parts: Stainless Steel

Diaphragm: NBR (Buna-N) Reinforced nylon fabric

Springs: Stainless Steel

Filter Screen: Stainless Steel - 130 micron

Filter Cover: Polypropylene End Connection: 1"/25 mm Inlet: Male BSP; NPT

Outlet: Female BSP-Union; NPT-Union

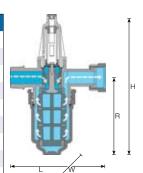
Pressure

Pressure Rating: 10 bar: 130 psi Flow Range: 0.01-3 m³/h: 0.04-13 gpm

KV=3.6 m³/h/ CV=4.15 gpm

Dimensions and Weight

Length: 4.92"/125 mm Height: 8.15"/207 mm Width: 3.15"/80 mm Weight: 0.62 lb/0.280 kg





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Landscape Combine Valves

EMV - Electric Manifold, Male Inlet, Record Outlet

NEW EMV-AC

Solenoid S-390-2W, 24V/AC
Inlet: Male: Outlet: Female-Union

Size Connection C		Cat Na	
Inch	mm	Connection	Cat. No.
1"	25	Threaded BSP	GM101GP2BR000M0

Units per Case	Weight (kg)	Volume (m³)		
16	6	0.0273		



EFV - Electric Filter Valve, Male Inlet, Record Outlet

NEW EFV-AC

Solenoid S-390-2W, 24V/AC Inlet: Male; Outlet: Female-Union

Siz€		Connection	Cat. No.	
Inch	mm	Connection	Cat. No.	
1"	25	Threaded BSP	GF101GP2BR000M0	

Units per Case	Weight (kg)	Volum∈ (m³)	
16	7	0.0400	



EMV - Electric Latching Manifold, Male Inlet, Record Outlet

NEW EMV-LS

Solenoid S-392 Latching, 6-20VDC Inlet: Male; Outlet: Female-Union

	Size		Connection	Cat. No.	
			Connection		
	1"	25	Threaded BSP	GM101GP9BR000M0	

Units per Case	Weight (kg)	Volum∈ (m³)	
16	6	0.0273	



EFV - Electric Latching Filter Valve, Male Inlet, Record Outlet

NEW EFV-LS

Solenoid S-392 Latching, 6-20VDC Inlet: Male; Outlet: Female-Union

	Size		Connection	Cat. No.	
			Connection		
	1"	25	Threaded BSP	GF101GP9BR000M0	

Units per Case	Weight (kg)	Volume (m³)	
16	7	0.0400	





Landscape Combine Valves

PRF - Pressure Reducing Filter, Male Inlet, Record Outlet

NEW

PRF

Flow 0.2- 5.0 m³/h

Inlet: Male; Outlet: Female-Union

Size Inch mm		Pressure Bar (kg/cm²)	Connection	Cat. No.
1"	25	1.4	Threaded BSP	GRV01GP0BR00014
1"	25	2.5	Threaded BSP	GRV01GP0BR00025

Units per Case	Weight (kg)	Volum∈ (m³)	
16	7	0.0400	
16	7	0.0400	



PRF-05 - Pressure Reducing Filter - Low Flow, Male Inlet, Record Outlet

NEW PRF-05

Loш Floш O.OI- 5.O m³/h

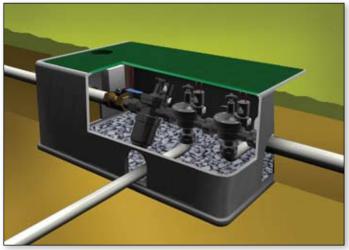
Inlet: Male; Outlet: Female-Union

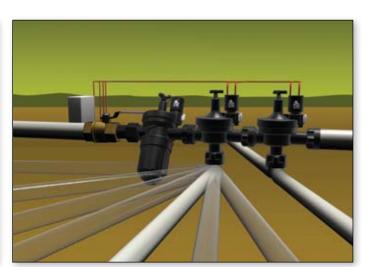
Si	Z€	Pressure Bar	C	C-4 No
Inch	mm	(kg/cm2)	Connection	Cat. No.
1"	25	1.4	Threaded BSP	GRV01GP0BR05014
1"	25	2.5	Threaded BSP	GRV01GP0BR05025

Units per Case	W∈ight (k³)	Volum∈ (m³)	
16	7	0.0400	
16	7	0.0400	



Typicle Application







40R Series

The BERMAD Hydraulic Control Landscape Valve is a hydraulically operated, diaphragm actuated control valve that opens and shuts in response to a local or remote pressure command.



Features and Benefits

- Hydraulic Control Valve
 - Line pressure driven
 - Hydraulically controlled On/Off
- Advanced Globe Hydro-Efficient Design

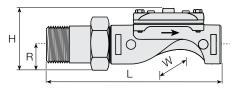


40R Series - Technical Specifications

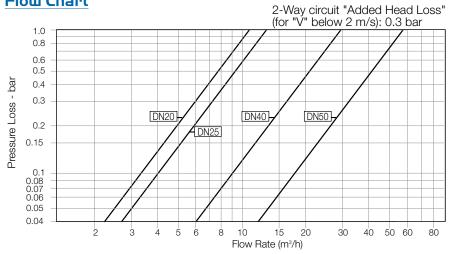
Dimensions and Weights

Globe Pattern GR-400

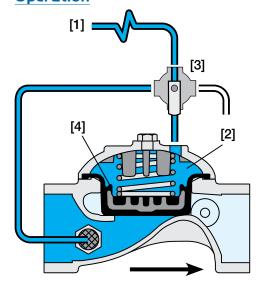
Size		1"	1½"	2"
L	(mm)	178	235	475
Н	(mm)	70	91	119
W	(mm)	72	95	120
R	(mm)	27	40	55
Weight	(kg)	1.5	2.5	4.5



Flow Chart



Operation



Hydraulic Command [1] is applied to the Control Chamber [2] through the Manual Selector [3]. This creates superior closing force that moves the Diaphragm Assembly [4] to a closed position. 16 Discharging pressure from the control chamber, by turning the manual selector, causes the line pressure acting on the lower side of the diaphragm assembly to move the Valve to an open position.

Technical Specifications

Sizes: 1"-2"; DN25-50

Patterns:

Globe: 1", 11/2" & 2"; DN25, 40 & 50 End Connections: External Threads BSP

Pressure Rating: 10 bar; 145 psi

Operating Pressure Range: 0.5-10 bar; 7-145 psi

Materials:

Body, Cover and Plug: Brass

Diaphragm: NR Spring: Stainless Steel

Bolts, Studs and Nuts: Zinc-Cobalt Plated Steel



40R Series - BERMAD Landscape Valves

40R Series

BERMAD Hydraulic Control Landscape Valve

Basic Valve & Inlet Records

GR-40R

	Siz€				
	Inch	mm	Connection	Cat. No.	
ſ	1"	25	Frate we al	40R01GR0BP0000	
	1½"	40	External Threaded BSP	40R15GR0BP00000	
	2"	50	Tilleaueu BSP	40R02GR0BP00000	

Units per Case	W∈ight (kg)	Volum∈ (m³)
6	9.40	0.0160
4	11.27	0.0160
2	8.46	0.0160



BERMAD Solenoid Controlled Landscape Valve & Inlet Records

GR-4IR-KX

Solenoid S-390-3W-24V/AC

	Size Inch mm			
			Connection	Cat. No.
Ì	1"	25	Cytomol	41R01GR0BS003S8-S390
	1½"	40	40 External Threaded BSP	41R15GR0BS003S8-S390
	2"	50	Threaded BSP	41R02GR0BS003S8-S390

Units per Case	W∈ight (kg)	Volume (m³)
6	10.60	0.0183
4	12.00	0.0183
2	8.90	0.0183



BERMAD Pressure Reducing Landscape Valve

with 2-Way Electric Control & Inlet Records

GR-42R-55-2W-K

Solenoid S-390-2W-24V/AC

	Size Inch mm			
			Connection	Cat. No.
Ì	1½"	40	External	42R15GR0BS552P8
	2"	50	Threaded BSP	42R02GR0BS552P8

Units per Case	W∈ight (kg)	Volume (m³)
2	7.20	0.0183
2	9.50	0.0183



BERMAD Pressure Reducing Landscape Valve

with 3-Way Electric Control & Inlet Records

GR-42R-55-3W-K

Solenoid S-390-3W-24V/AC

Size				
Inch	mm	Connection	Cat. No.	
1½"	40	External	42R15GR0BS553P8	
2"	50	Threaded BSP	42R02GR0BS553P8	

Units per Case	W∈ight (kg)	Volum∈ (m³)
2	7.30	0.0183
2	9.60	0.0183







40R Series - BERMAD Landscape Valves

40R Series

BERMAD Latching Solenoid Controlled Valve

with 3-Way Control & Inlet Records

Solenoid S-982 Latching, I2-50V/DC

Si	z∈		Cat. No.	
Inch	mm	Connection		
1"	25	Cytomol	41R01GR0BS003S8-S982	
11/2"	40	External Threaded BSP	41R15GR0BS003S8-S982	
2"	50	Tilleaueu BSP	41R02GR0BS003S8-S982	

Units per Case	W∈ight (kg)	Volum∈ (m³)
6	10.80	0.0183
4	12.10	0.0183
2	9.00	0.0183



BERMAD Pressure Reducing Landscape Valve

with 2-Way Latching Solenoid Control & Inlet Records

Solenoid S-392 Latching, 6-20V/DC

Siz€			
Inch	mm	Connection	Cat. No.
1½"	40	External	42R15GR0BS552P8-S392
2"	50	Threaded BSP	42R02GR0BS552P8-S392

Units per Case	W∈ight (kg)	Volume (m³)
2	7.20	0.0183
2	9.50	0.0183





BERMAD Pressure Reducing Landscape Valve

with 3-Way Latching Solenoid Control Inlet Records

Solenoid S-982 Latching, I2-50V/DC

Si	Size				
Inch	mm	Connection	Cat. No.		
1½"	40	External	42R15GR0BS553P8-S982		
2"	50	Threaded BSP	42R02GR0BS553P8-S982		

Units per Case	W∈ight (kg)	Volume (m³)		
2	7.30	0.0183		
2	9.60	0.0183		

GR-42R-55-LS-3W-K





400 Series

The BERMAD Hydraulic Control Landscape Valve is a hydraulically operated, diaphragm actuated control valve that opens and shuts in response to a local or remote pressure command.

Features and Benefits

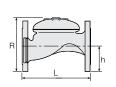
- Hydraulic Control Valve
 - Line pressure driven
 - Hydraulically controlled On/Off
- Advanced Globe Hydro-Efficient Design
 - Unobstructed flow path
 - Single moving part
 - High flow capacity
- Fully Supported & Balanced Diaphragm
 - Requires low opening and actuation pressure
 - Progressively restrains valve closing
 - Prevents diaphragm distortion
- User-Friendly Design



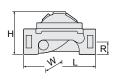
400 Series - Technical Specifications

Dimensions and Weights

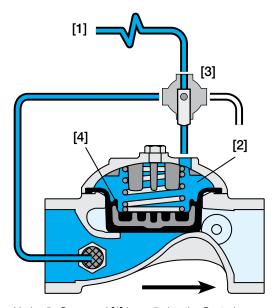
Pattern		Globe				
Connecti	ons		Flange			
Size DN Inch		40 1½"	50 2"	80 3"	80 3"	
L	mm	153	180	255	250	
	inch	6	7.1	10.0	9.8	
R	mm	87	114	165	210	
	inch	3.4	4.5	6.5	8.25	
h	mm	29	39	55	100	
	inch	1.1	1.5	2.2	3.9	
A; B	mm	130	130	175		
_ ′	inch	5	5	7		
Weight	Kg	2	4	13	19	
	lb.	4.4	8.8	28.7	41.9	







Operation



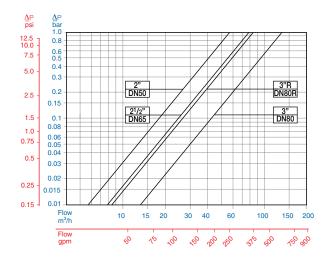
Hydraulic Command [1] is applied to the Control Chamber [2] through the Manual Selector [3]. This creates superior closing force that moves the Diaphragm Assembly [4] to a closed position. Discharging pressure from the control chamber, by turning the manual selector, causes the line pressure acting on the lower side of the diaphragm assembly to move the Valve to an open position.

20 Technical Data

Pressure Rating: 16 bar; 232 psi **Operating Pressure Range:** 0.5-16 bar; 7-232 psi For lower pressure requirements, consult factory

BERMAD

Flow Chart





400 Series - BERMAD Valves

400 Series

BERMAD Basic Hydraulic Control Valve

405

Si	z€					
Inch	mm	Connection	Cat. No.	Units per Case	W∈ight (kg)	Volume (m³)
1½"	40		40515GI1BP00000	10	11.17	0.0160
2"	50	Threaded BSP	40502GI1BP00000	10	11.42	0.0160
3"	80		40503GI1BP00000	4	13.20	0.0183
3"	80	Flanged ISO-16	40503GI11600000	4	13.66	0.0183



BERMAD Solenoid Control Valve

410-KX

Solenoid S-390-3W-24V/AC

Si	z∈			
Inch	mm	Connection	Cat. No.	
1½"	40		41015GI1BP003S8-S390	
2"	50	Threaded BSP	41002GI1BP003S8-S390	
3"	80		41003GI1BP003S8-S390	
3"	80	Flanged ISO-16	41003GI116003S8-S390	

Units per Case	W∈ight (kg)	Volume (m³)		
2	8.80	0.0183		
2	9.30	0.0183		
1	13.10	0.0183		
1	13.70	0.0183		



BERMAD Pressure Reducing Valve

with 2-Way Electric Control

420-55-2W-K

Solenoid S-390-2W-24V/AC

Si	z€						
Inch	mm	Connection	Cat. No.		Units per Case	Weight (kg)	Volume (m³)
1½"	40		42015GI1BP552P8	ſ	2	9.60	0.0183
2"	50	Threaded BSP	42002GI1BP552P8		2	10.20	0.0306
3"	80		42003GI1BP552P8		1	13.70	0.0306
3"	80	Flanged BSTD	42003GI116552P8		1	14.30	0.0306







400 Series - BERMAD Valves

400 Series

410-LS-2W-K

BERMAD Latching Solenoid Controlled Valve

with 2-Way Control

Solenoid S-392 Latching, 6-20V/DC

Si	ze		
Inch	mm	Connection	Cat. No.
1½"	40		41015GI1BP002S8-S392
2"	50	Threaded BSP	41002GI1BP002S8-S392
3"	80		41003GI1BP002S8-S392
3"	80	Flanged BSTD	41003GI116002S8-S392

Units per Case	W∈ight (kg)	Volum∈ (m³)		
2	8.80	0.0183		
2	9.30	0.0183		
1	13.10	0.0183		
1	13.70	0.0183		



BERMAD Latching Solenoid Controlled Valve

with 3-Way Control

Solenoid S-982 Latching, I2-50V/DC

Si	z∈		
Inch	mm	Connection	Cat. No.
1½"	40		41015GI1BP003S8-S982
2"	50	Threaded BSP	41002GI1BP003S8-S982
3"	80		41003GI1BP003S8-S982
3"	80	Flanged ISO-16	41003GI116003S8-S982

Units per Case	W∈ight (kg)	Volume (m³)		
2	9.20	0.0183		
2	9.70	0.0183		
1	13.30	0.0183		
1	13.90	0.0183		



410-LS-3W-K

BERMAD Pressure Reducing Valve

with 2-Way Latching Solenoid Control

Solenoid S-392 Latching, 6-20V/DC

Siz€			
Inch	mm	Connection	Cat. No.
1½"	40		42015GI1BP552P8-S392
2"	50	Threaded BSP	42002GI1BP552P8-S392
3"	80		42003GI1BP552P8-S392
3"	80	Flanged ISO-16	42003GI116552P8-S392

Units per Case	W∈ight (kg)	Volume (m³)	
2	9.20	0.0183	
2	10.00	0.0306	
1	13.60	0.0306	
1	14.20	0.0306	



420-55-LS-2W-K





90R Series

The BERMAD Landscape Hydrometer with Magnetic Drive integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. The impeller drive is magnetically coupled to a vacuum-sealed meter register in the control head.

Serving as Flow Meter and Main Valve, the BERMAD Model 90R-M0-Z controls irrigation together with the irrigation controller. It opens and shuts in response to remote hydraulic commands or locally by its manual selector.



- Integrated "All-in-One" Control Valve
 - Saves space, cost and maintenance
- Hydraulically Controlled Hydrometer
- Register

 - Reed-switch and Opto pulse-generating
- Device

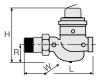




90R Series - Technical Specifications

Dimensions and Weights

Connections		Threaded		
Size		DN40	DN50	
L	mm	317	327	
W	mm	137	137	
Н	mm	270	277	
R	mm	95	95	
Weight	Kg	7.2	7.3	



Accuracy Table

Flow Chart

1¹/₂" DN40

0.8

0.3

0.08

0.06 0.05

0.015

12.5 -10.0 -

5.0

1.0 0.75

	Accuracy	DN40	DN50
Q1 Minimum Flow	±5%	.8	0.8
Q2 Transitional Flow	±2%	1.3	1.3
Qn Nominal Flow ISO 4064-1-1993	±2%	15	15
Q3 Permanent Flow	±2%	25	40
Q4 Maximum Flow (Short Time)	±2%	31	50
Q2/Q1	-	1.6	1.6
Q3/Q1	-	31	50
Class ISO 4064-1-1993	-	A	A

Operation [1]

A Hydraulic Command [1] is applied to the Control Chamber [2], through the Manual Selector [3]. This creates a superior closing force that moves the Diaphragm Assembly [4] to a closed position. Discharging pressure from the control chamber, by turning the manual selector, causes the line pressure acting on the lower side of the diaphragm assembly to move the Hydrometer to an open position, and measure the flow rate.

Pulse Option

One pulse per	Liter, Gallon
Size	1, 0.1
1½"-2", DN40-50	
	•

Technical Data

End Connections:

Threaded: 1½, 2; DN40, 50 Pressure Rating: 16 bar; 232 psi

Minimum Operating Pressure: 0.5 bar; 7 psi For lower pressure requirements, consult factory





90R Series - Landscape BERMAD Valves

90R Series

BERMAD Hydraulic Super Hydrometer Landscape

Valve with Magnetic Drive, Manual Selector,

Pulse O.I m3 & Records

GR-90R/M0-0U-MZ-R02

Inlet: Male-Union. Outlet: Female

Si	z€		
Inch	mm Connection Cat. No.		Cat. No.
1½"	40	External	90R15GIM0BS0UM08Z-0.1 m ³
2"	50	Threaded BSP	90R02GIM0BS0UM08Z-0.1 m ³

Units per Case	Weight (kg)	Volume (m³)
1	8.90	0.0306
1	9.20	0.0306



BERMAD Super Hydrometer 3-Way Control Solenoid

Landscape Valve with Magnetic Drive, Pulse O.I m³ & Records

GR-9IR/M0-0U-KX-R02

Inlet: Male-Union, Outlet: Female Solenoid S-390-3W-24V/AC

Si	z€		
Inch	mm	Connection	Cat. No.
1½"	40	External	91R15GIM0BP0UM08-0.1 m ³
2"	50	Threaded BSP	91R02GIM0BP0UM08-0.1 m ³

Units per Case	Weight (kg)	Volume (m³)
1	9.10	0.0306
1	9.40	0.0306



BERMAD Super Pressure Reducing Hydrometer Landscape

with Magnetic Drive, 2-Way Solenoid Control, Pressure Guage, Pulse O.I m³ & Records

GR-92R/M0-5S-2W-K6-R02

Inlet: Male-Union, Outlet: Female Solenoid S-390-2W-24V/AC

Si				
Inch	mm	Connection	Cat. No.	
1½"	40	External	92R15GIM0BP5S00M086-2W-0.1m ³	
2"	50	Threaded BSP	92R02GIM0BP5S00M086-2W-0.1m ³	

Units per Case	W∈ight (kg)	Volume (m³)	
1	9.50	0.0306	
1	9.80	0.0306	



BERMAD Super Pressure Reducing Hydrometer Landscape

with Magnetic Drive, 3-Way Electric Control, Pressure Guage, Pulse O.I m³ & Records

GR-92R/M0-5S-3W-K6-R02

Inlet: Male-Union, Outlet: Female Solenoid S-390-3W-24V/AC

Si	z€			
Inch	mm	Connection	n Cat. No.	
1½"	40	External Threaded	92R15GIM0BP5S00M086-0.1m ³	
2"	50	BSP	92R02GIM0BP5S00M086-0.1m ³	

Units per Case	Weight (kg)	Volum∈ (m³)
1	9.50	0.0306
1	9.80	0.0306







90R Series - Landscape BERMAD Valves

90R Series

BERMAD Super Hydrometer Landscape Latching 3-Way Control Solenoid

with Magnetic Drive, Pulse O.I m³ & Records

GR-9IR/M0-0U-LS-KX-R02

Inlet: Male-Union, Outlet: Female Solenoid S-982 Latching, I2-50V/DC

Siz€				
Inch	mm	Connection	Cat. No.	
1½"	40	LACCITICI	91R15GIM0BP0UM08-S982-0.1 m ³	
2"	50	Threaded BSP	91R02GIM0BP0UM08-S982-0.1 m ³	

Units per Case	W∈ight (kg)	Volume (m³)
1	9.20	0.0306
1	9.50	0.0306



BERMAD Super Pressure Reducing Hydrometer Landscape

with Magnetic Drive, Latching 2-Way Solenoid Control, Pressure Guage, Pulse O.I m³ & Records

GR-92R/M0-5S-2W-LS-K6-R02

Inlet: Male-Union, Outlet: Female Solenoid S-392-2W-6-20V/DC

Siz€				
Inch	mm	Connection	Cat. No.	
1½"	40	External Threaded	92R15GIM0BP5SM086-S392-0.1m ³	
2"	50	BSP	92R02GIM0BP5SM086-S392-0.1m³	

Units per Case	W∈ight (kg)	Volume (m³)		
1	9.50	0.0306		
1	9.80	0.0306		



BERMAD Super Pressure Reducing Hydrometer Landscape

with Magnetic Drive, Latching 3-Way Solenoid Control, Pressure Guage, Pulse O.I m³ & Records

GR-92R/M0-5S-3W-LS-K6-R02

Inlet: Male-Union, Outlet: Female Solenoid S-982 Latching, I2-50V/DC

Siz€				
Inch	mm	Connection	Cat. No.	
1½"	40	External Threaded	92R15GIM0BP5SM086-S982-0.1m ³	
2"	50	BSP	92R02GIM0BP5SM086-S982-0.1m ³	

Units per Case	W∈ight (kg)	Volume (m³)		
1	9.50	0.0306		
1	9.80	0.0306		





900 Series

The BERMAD Landscape Hydrometer with Magnetic Drive integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. The impeller drive is magnetically coupled to a vacuum-sealed meter register in the control head. Serving as Flow Meter and Main Valve, the BERMAD Model 900-M0 controls irrigation together with the irrigation controller. It opens and shuts in response to remote hydraulic commands or locally by its manual selector.



Features and Benefits

- Integrated "All-in-One" Control Valve
 - Saves space, cost and maintenance
- Hydraulically Controlled Hydrometer
 - Line pressure driven
- Magnetic Drive with Vacuum-Sealed Register
- Water-free gear train mechanism
- Reed-switch and Opto pulse-generating modes
- Various pulse combinations
- Internal Inlet & Outlet Flow Straighteners
- Saves on straightening distances
- Maintains accuracy
- Integrated Flow Metering Calibration Device
 - Precise measurement
 - Simple in-line inspection and service





900 Series - Technical Specifications

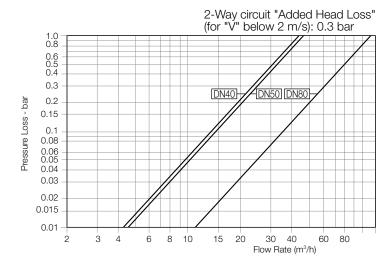
Dimensions and Weights

Size	DN Inch	40-T 1 ¹ / ₂ -T	50-T 2-T	80R-T 3R-T	80-F 3-F
	mm	250	250	250	300
L .	inch	9.8	9.8	9.8	11.8
R	mm	270	277	277	382
	inch	10.6	10.9	10.9	15.0
h	mm	95	95	79	123
	inch	3.7	3.7	3.1	4.8
Weight	Kg	6.8	8.8	7.3	26.0
	lb.	15	19.4	16.1	57.3

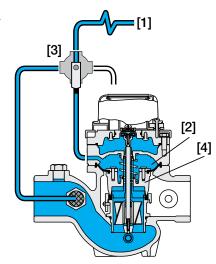




Flow Chart



Operation



Hydraulic Command [1] is applied to the Control Chamber [2], through the Manual Selector [3]. This creates a superior closing force that moves the Diaphragm Assembly [4] to a closed position. Discharging pressure from the control chamber, by turning the manual selector, causes the line pressure acting on the lower side of the diaphragm assembly to move the Hydrometer to an open position, and measure the flow rate.

Technical Data

End Connections:

Threaded: 1½, 2 & 3"R; DN40, 50 & 80R

28 Flanged: 3, DN80

Pressure Rating: 16 bar; 232 psi

Minimum Operating Pressure: 0.5 bar; 7 psi For lower pressure requirements, consult factory

Accuracy & Flow Data

Size	Accuracy	DN inch	80R 3R	80 3
ISO 4064-1 Class				В
Q min	5%	m³	1.2	1.2
(Minimum flow)		gpm	5.3	5.3
Qn, ISO 4064-1	2%	m³	17	40
(Nominal flow)		gpm	75	176
Qper=Q3	2%	m³	40	100
(Permanent flow)		gpm	176	440

Pulse Option

One pulse per	Liter, Gallon
Size	1, 0.1
1½"-3", DN40-80	





900 Series - BERMAD Valves

900 Series

BERMAD Hydrometer with Magnetic Drive, Pulse O.I m³

900/M0-R02

Si	z€		
Inch	mm	Connection	Cat. No.
1½"	40	Thus sale al	90015GIM0BP00000-0.1 m ³
2"	50	Threaded BSP	90002GIM0BP00000-0.1 m ³
3"R	80	DOP	9003RGIM0BP00000-0.1 m ³
3"	80	Flanged ISO-16	90003GCM01600000-0.1 m ³

Units per Case	W∈ight (kg)	Volum∈ (m³)	
1	7.20	0.0183	
1	8.60	0.0183	
*	*	*	
*	*	*	



BERMAD 3-Way Solenoid Control Hydrometer

with Magnetic Drive, Pulse O.I m3

910/M0-KX-R02

Solenoid S-390-3W-24V/AC

Si	z∈			
Inch	mm	Connection	Cat. No.	
1½"	40	Threaded	91015GIM0BP00008-0.1 m ³	
2"	50	BSP	91002GIM0BP00008-0.1 m ³	
3"R	80	ВЭР	9103RGIM0BP00008-0.1 m ³	
3"	80	Flanged ISO-16	91003GCM01600008-0.1 m ³	

Units per Case	W∈ight (kg)	Volum∈ (m³)		
1	7.40	0.0183		
1	8.80	0.0183		
*	*	*		
*	*	*		



BERMAD 2-Way Solenoid Control Pressure Reducing Hydrometer

with Magnetic Drive, Pulse O.I m³

920/M0-55-2W-K-R02

Solenoid S-390-2W-24V/AC

Si	z∈		
Inch	mm	Connection	Cat. No.
1½"	40	Thusselse	92015GIM0BP55008-2W-0.1m ³
2"	50	Threaded BSP	92002GIM0BP55008-2W-0.1m ³
3"R	80	DOP	9203RGIM0BP55008-2W-0.1m ³
3"	80	Flanged ISO-16	92003GCM01655008-2W-0.1m ³

Units per Case	W∈ight (kg)	Volume (m³)	
1	7.70	0.0183	
1	9.00	0.0183	
*	*	*	
*	*	*	





^{*} See page 28

^{*} See page 28

^{*} See page 28



900 Series - BERMAD Valves

900 Series

BERMAD 2-Way Control Latching Solenoid Hydrometer with Magnetic Drive, Pulse O.I m³

910/M0-LS-2W-K-R02

Solenoid S-392 Latching, 6-20V/DC

Si	Z€		
Inch	mm	Connection	Cat. No.
1½"	40	Threaded	91015GIM0BP00008-S392-0.1 m ³
2"	50	BSP	91002GIM0BP00008-S392-0.1 m ³
3"R	80	DOP	9103RGIM0BP00008-S392-0.1 m ³
3"	80	Flanged ISO-16	91003GCM01600008-S392-0.1 m ³

Units per Case	W∈ight (kg)	Volum∈ (m³)
1	7.40	0.0183
1	8.80	0.0183
*	*	*
*	*	*



BERMAD 3-Way Control Latching Solenoid Hydrometer with Magnetic Drive, Pulse O.I m³

910/M0-LS-3W-K-R02

Solenoid S-982 Latching, I2-50V/DC

Si	z∈		
Inch	mm	Connection	Cat. No.
1½"	40	Threaded	91015GIM0BP00008-S982-0.1 m ³
2"	50	BSP	91002GIM0BP00008-S982-0.1 m ³
3"R	80	DOF	9103RGIM0BP00008-S982-0.1 m ³
3"	80	Flanged ISO-16	91003GCM01600008-S982-0.1 m ³

Units per Case	W∈ight (kg)	Volume (m³)	
1	7.40	0.0183	
1	8.80	0.0183	
*	*	*	
*	*	*	



BERMAD 2-Way Latching Solenoid Control Pressure Reducing Hydrometer

with Magnetic Drive, Pulse O.I m3

920/M0-55-LS-2W-K-R02

Solenoid S-392 Latching, 6-20V/DC

Si	z€		
Inch	mm	Connection	Cat. No.
1½"	40	Threaded	92015GIM0BP55008-S392-0.1m ³
2"	50	BSP	92002GIM0BP55008-S392-0.1m ³
3"R	80	ВОР	9203RGIM0BP55008-S392-0.1m ³
3"	80	Flanged ISO-16	92003GCM01655008-S392-0.1m ³

Units per Case	W∈ight (kg)	Volum∈ (m³)
1	7.70	0.0183
1	9.00	0.0183
*	*	*
*	*	*





^{*} See page 28

^{*} See page 28

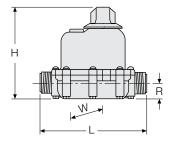
^{*} See page 28



MT Series - Technical Specifications

Dimensions and Weights

Size	Inch	3/4"	1"
L	mm	166	166
Н	mm	145	145
W	mm	100	100
R	mm	25	25
Weight	Kg	0.60	0.65



1.0 0.9 0.8 0.6 0.5 0.4 0.3 Pressure Loss - bar 0.2 MTA MT 0.15 0.1 0.08 0.07 0.06 0.05 0.04

0.3 0.4 0.5 0.6 0.8 1.0

Flow Rate - Water (m3/h)

1.5 2.0

3.0 4.0

Flow Chart

0.03

0.15 0.2

Flow Rate and Dial Capacity

Valve	Size		Nominal Flow	Flow Rate (m³/h)	
Category	3/4"	1"	Rate (m³/h)	Min	Max
MT	•	•	3.0	0.5	5.0
МТА	٠	٠	1.5	0.1	2.0

Dial Capacity	Graduation (liters)
100 Liter	2.5
1000 Liter	25
2000 Liter	50
4-m ³	100
10-m ³	250
20-m ³	500
50-m ³	1000
50 Liter	1
500 Liter	10
2000 Liter	50
4-m ³	100
8-m³	200

Technical Data

Sizes: 3/4"&1"

End Connections: Male Threads BSP or NPT
Pressure Rating: ISO: PN6 ANSI: Class 90
Operating Pressure Range: 0.7-6 bar (10-90 psi)

Valve Category: MT - Normal flow

MTA - Low flow

Temperature Range: Water up to 80°C (180°F)

Accuracy of dosing: 2% of the max scale valve plus 4% of the set volume.

Meets ISO 7714 Class 3 requirements

Materials

Base, Housing and Gear: Plastic Shafts and Springs: Stainless Steel

Seals: EPDM and NBR





MT Series - Bermadon BERMAD Valves

MT Series

Automatic Metering Valves - Standard flow

MT

Floш 0.5- 5.0 m³/h

Di-1 Cit	Siz€		C-1 N-
Dial Capacity	Inch	mm	Cat. No.
1000 Liter	3/4"	DIN20	MT0071LIBP01000
	1"	DIN25	MT0011LIBP01000
2000 Liter	3/4"	DIN20	MT0071LIBP02000
	1"	DIN25	MT0011LIBP02000
4 m³	3/4"	DIN20	MT0071M3BP00004
	1"	DIN25	MT0011M3BP00004
10 m³	3/4"	DIN20	MT0071M3BP00010
	1"	DIN25	MT0011M3BP00010

Units per Case	Weight (kg)	Volume (m³)			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			



Automatic Metering Valves - Low Flow

MTA

Flow O.I-2.0 m³/h

Dial Casacitu	Siz∈		Cat. No.
Dial Capacity	Inch	mm	Cat. No.
50 Liter	3/4"	DIN20	MTA071LIBP00050
	1"	DIN25	MTA011LIBP00050
500 Liter	3/4"	DIN20	MTA071LIBP00500
	1"	DIN25	MTA011LIBP00500
2000 Liter	3/4"	DIN20	MTA071LIBP02000
	1"	DIN25	MTA011LIBP02000
4 m³	3/4"	DIN20	MTA071M3BP00004
	1"	DIN25	MTA011M3BP00004
8 m³	3/4"	DIN20	MTA071M3BP00008
	1"	DIN25	MTA011M3BP00008

Units per	W∈ight	Volum∈			
Case	(kg)	(m³)			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			
12	8.90	0.0367			

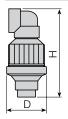


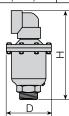


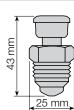
AR Series - Technical Specifications

Dimensions and Weights

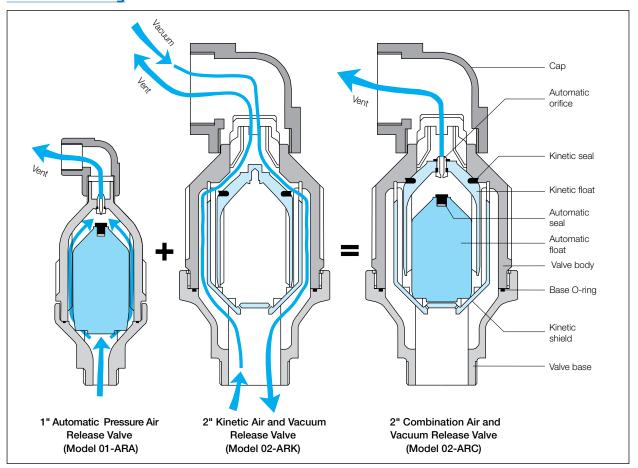
		Plastic Body			Metallic Body		
Valve Model	Size	D (mm)	H (mm)	Weight (mm)	D (mm)	H (mm)	Weight (mm)
Combination (02-ARC)	2"	130	245	2.8	150	290	5.5
Kinetic (02-ARK)	2"	130	245	2.7	150	290	5.4
Automatic (01-ARA)	1"	85	180	0.9	120	230	3.0
Vacuum Breaker (ARV)	1/2"	25	43	0.1			







Valve Assembly



Technical Data

Sizes: 2", 1", 1/2"

End Conection: Threading BSP, NPT

Pressure Rating:

Plastic body models: ISO: PN 10 Cast iron models: ISO: PN 16; ANSI: # 125

Operating Pressure Range:

Plastic body: 0.1-10 bar (1½-150 psi) Iron body: 0.1-16 bar (1½-225 psi) Temperature Range: Water up to 80°C (180°F)

Materials:

Body and Cover: Plastic or Polyester-coated

Cast Iron

Floats and Kinetic Shield: Plastic Automatic Orifice: Stainless Steel

Seals: Buna-N and NR





BERMAD Air & Vacuum Release Valves

AR Series

BERMAD Combination Air Release Valve

2"-ARC

	Siz∈		Siz€			
	Inch	mm	Material	Cat. No.		
Ī	2"	50	Plastic	VRC02APIBP00000		
	2"	50	Metal	VRC02AI0BP00000		

Units per Case	W∈ight (kg)	Volume (m³)			
2	6.00	0.0132			
2	12.30	0.0132			



BERMAD Kinetic Air Release Valve

2"-ARK

Siz€					
Inch	mm	Material	Cat. No.		
2"	50	Plastic	VRK02APIBP00000		
2"	50	Metal	VRK02AI0BP00000		

Units per Case	W∈ight (kg)	Volum∈ (m³)				
2	6.30	0.0132				
2	12.30	0.0132				



BERMAD Automatic Air Release Valve

I"-ARA

Siz€					
Inch	mm	Material	Cat. No.		
1"	25	Plastic	VRA01APPBP00000		
1"	25	Metal	VRA01AI0BP00000		

Units per Case	W∈ight (kg)	Volume (m³)				
12	6.10	0.0183				
3	9.20	0.0132				



BERMAD Plastic Vacuum Breaker

1/2"**-ARV**

Siz€					
Inch	mm	Material	Cat. No.		
1/2"	12	Plastic	VRV050P0BP00000		

Units per Case	W∈ight (kg)	Volum∈ (m³)			
100	1.00	0.0080			



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Standard Configuration:

- All valves are pre-tested and ready for installation and start-up
- Pressure Rating: Plastic 10 bar (145 psi), Metal 16 bar (230 psi)



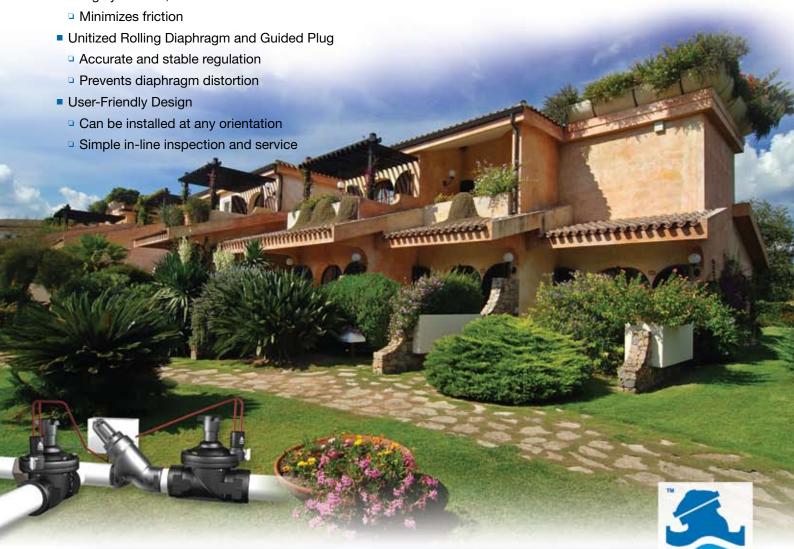
PRV Series

The BERMAD Adjustable Direct Acting Pressure Reducer is actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring force. The BERMAD Model PRV is built of reinforced plastic that endows it with excellent hydraulic performance capabilities and high mechanical strength. It reduces higher upstream pressure to lower constant downstream pressure regardless of fluctuating demand or varying upstream pressure.



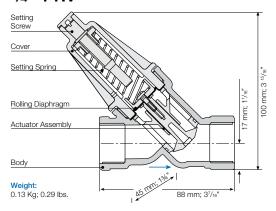
Features and Benefits

- Advanced Construction Materials
 - High mechanical strength
 - Proven pressure, flow and weather resistance
- Adjustable Direct Acting Pressure Reducer
 - Constant downstream pressure
 - Immediate response
 - Can be set per season and stage
- Plastic Body and Trim
 - Highly durable, chemical and cavitation resistant



PRV Series - Technical Specifications

3/4"- PRV



Technical Data

Size: 3/4"; DN20

End Connections: Threaded Inlet: Female BSP: NPT

Outlet: Female BSP; NPT or Male BSPT; NPT Flow Range: 0.2-5 m3/h; 0.9-22 gpm Pressure Ratings: 10 bar; 150 psi

Operating Pressure Range: 0.7-9 bar; 10-130 psi

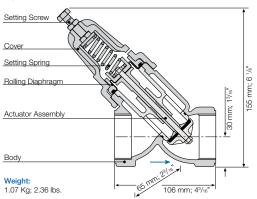
Temperature: Water up to 50°C; 122°F

Materials:

Body, Cover and Actuator Assembly: Glass-Filled Nylon Diaphragm: NBR (Buna-N), Reinforced Nylon Fabric

Spring: Stainless Steel

I1/2"- PRV



Technical Data

Size: 11/2"; DN40

End Connections: Female Threads BSP; NPT Flow Range: 0.45-18 m3/h; 2-80 gpm Pressure Ratings: 10 bar; 150 psi

Operating Pressure Range: 0.7-9 bar; 10-130 psi

Temperature: Water up to 50°C; 122°F

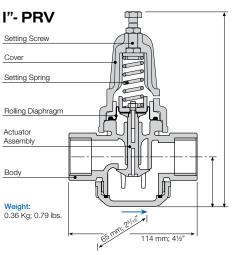
Materials: Body: Brass

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Cover and Actuator Assembly: Glass-Filled Nylon Diaphragm: NBR (Buna-N), Reinforced Nylon Fabric

Spring: Stainless Steel





Technical Data

Size: 1": DN25

End Connections: Female Threads BSP; NPT Flow Range: 0.1-7 m3/h; 0.4-31 gpm Pressure Ratings: 10 bar; 150 psi

Operating Pressure Range: 0.7-9 bar; 10-130 psi

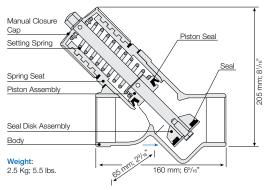
Temperature: Water up to 50°C; 122°F

Materials:

Body, Cover and Actuator Assembly: Glass-Filled Nylon Diaphragm: NBR (Buna-N), Reinforced Nylon Fabric

Spring: Stainless Steel

2"- PRV



Technical Data

Size: 2"; DN50

End Connections: Female Threads BSP; NPT Flow Range: 4-25 m3/h; 18-110 gpm Pressure Ratings: 10 bar; 150 psi

Operating Pressure Range: 2-8 bar; 30-115 psi

Temperature: Water up to 50°C; 122°F

Materials: Body: Brass

Manual Closure Cup and Spring Seat: Polyacetal

Internals: Stainless Steel and Nitril

Piston Seal: NBR (Buna-N), Reinforced Nylon Fabric

Spring: Stainless Steel



PRV Series PRV Series

BERMAD Adjustable Direct Acting Pressure Reducer

Threaded Male - Female, Female - Female

¾"- 20mm - PRV

FLOW - 0.2-5.0 m³/h

	Spring Selection Table				
Cat. No.	Spring	Color	Downstream Pressure Range -bar	Downstream Pressure Range -PSI	
PRV07FP0BP0000A	Α	Yellow	0.5 - 1.2	7 - 17	
PRV07FP0BP0000B	В	White	0.8 - 2.5	12 - 35	
PRV07FP0BP0000C	С	Red	2.0 - 4.0	30-60	
PRV07FP0BP0000D	D	Black	3.5 - 6.0	50-80	

Units per Case	W∈ight (kg)	Volume (m³)					
100	12.75	0.0367					
100	12.75	0.0367					
100	12.75	0.0367					
100	12.75	0.0367					



BERMAD Adjustable Direct Acting, Low Flow Pressure Reducer Threaded Male - Female, Female - Female

³⁄₄"- 20mm - PRV- 05

FLOW - 0.0I - 3.0 m³/h

	Spring Selection Table			
Cat. No.	Spring	Color	Downstream Pressure Range -bar	Downstream Pressure Range -PSI
PRV07FP0BP0500A	Α	Yellow	0.5 - 1.2	7 - 17
PRV07FP0BP0500B	В	White	0.8 - 2.5	12 - 35
PRV07FP0BP0500C	С	Red	2.0 - 4.0	30-60
PRV07FP0BP0500D	D	Black	3.5 - 6.0	50-80

Units per Case	W∈ight (kg)	Volume (m³)			
100	12.75	0.0367			
100	12.75	0.0367			
100	12.75	0.0367			
100	12.75	0.0367			



BERMAD Adjustable Direct Acting Pressure Reducer

Threaded Female - Female

I" - 25mm - PRV

FLOW - 0.45 - 7.0 m³/h

	Spring Selection Table			
Cat. No.	Spring Color Pressure Range Pressure Rbar -PSI			
PRV01FP0BP0000B	В	White	0.5 - 1.2	7 - 17
PRV01FP0BP0000C	С	Red	1.0 - 2.0	14 - 28
PRV01FP0BP0000D	D	Black	1.5 - 3.5	22 - 50
PRV01FP0BP0000Q	Q	Brown	3.0 - 5.5	45 - 80

Units per Case	W∈ight (kg)	Volume (m³)			
40	13.25	0.0367			
40	13.25	0.0367			
40	13.25	0.0367			
40	13.25	0.0367			



BERMAD Adjustable, Direct Acting, Drip-Tight Sealing, Low Flow Pressure Reducer

Threaded Female - Female

I" - 25mm - PRV - 07/05

FLOW - 0.1 - 7.0 m³/h

	Spring Selection Table			
Cat. No.	Spring	Color	Downstream Pressure Range -bar	Downstream Pressure Range -PSI
PRV01FP0BP0700A	В	White	0.5 - 1.2	7 - 17
PRV01FP0BP0700C	С	Red	1.0 - 2.0	14 - 28
PRV01FP0BP0700D	D	Black	1.5 - 3.5	22 - 50
PRV01FP0BP0700Q	Q	Brown	3.0 - 5.5	45 - 80

Units per Case	Weight (kg)	Volum∈ (m³)		
40	13.25	0.0367		
40	13.25	0.0367		
40	13.25	0.0367		
40	13.25	0.0367		









PRV Series PRV Series

BERMAD Adjustable Direct Acting, Drip-Tight Sealing Pressure Reducer

with Flow Stem, Threaded Female - Female

I" - 25mm - PRV - 07 - M

FLOW - 0.1 - 7.0 m³/h

	Spring Selection Table			
Cat. No.	Spring	Color	Downstream Pressure Range -bar	Downstream Pressure Range -PSI
PRV01FP0BP07M0B	В	White	0.5 - 1.2	7 - 17
PRV01FP0BP07M0C	С	Red	1.0 - 2.0	14 - 28
PRV01FP0BP07M0D	D	Black	1.5 - 3.5	22 - 50
PRV01FP0BP07M0Q	Q	Brown	3.0 - 5.5	45 - 80

Units per Case	Weight (kg)	Volume (m³)			
40	13.25	0.0367			
40	13.25	0.0367			
40	13.25	0.0367			
40	13.25	0.0367			



BERMAD Adjustable Direct Acting
Pressure Reducer - PLASTIC, Threaded Female - Female

I 1/2" - 40mm - PRV - P

FLOW - 0.45 - 18.0 m3/h

	Spring Selection Table			
Cat. No.	Spring	Color	Downstream Pressure Range -bar	Downstream Pressure Range -PSI
PRV15FP0BP0000B	В	White	0.5 - 1.2	7 - 17
PRV15FP0BP0000C	С	Red	1.0 - 2.0	14 - 28
PRV15FP0BP0000D	D	Black	1.5 - 3.5	22 - 50
PRV15FP0BP0000Q	Q	Brown	3.0 - 5.5	45 - 80

Units per Case	W∈ight (kg)	Volume (m³)			
10	11.50	0.0150			
10	11.50	0.0150			
10	11.50	0.0150			
10	11.50	0.0150			



BERMAD Adjustable Direct Acting
Pressure Reducer - METAL, Threaded Female - Female

I 1/2" - 40mm - PRV - R

FLOW - 0.45 - 18.0 m³/h

	Spring Selection Table			
Cat. No.	Spring	Color	Downstream Pressure Range -bar	Downstream Pressure Range -PSI
PRV15FR0BP0000B	В	White	0.5 - 1.2	7 - 17
PRV15FR0BP0000C	С	Red	1.0 - 2.0	14 - 28
PRV15FR0BP0000D	D	Black	1.5 - 3.5	22 - 50
PRV15FR0BP0000Q	Q	Brown	3.0 - 5.5	45 - 80

Units per Case	Weight (kg)	Volume (m³)			
10	11.50	0.0150			
10	11.50	0.0150			
10	11.50	0.0150			
10	11.50	0.0150			



BERMAD Adjustable Direct Acting
Pressure Reducer - METAL, Threaded Female - Female

2" - 50mm - PRV

FLOW - 4.0 - 25.0 m³/h

	Spring Selection Table			
Cat. No.	Spring Color Downstream Pressure Range Pressure R			
9901000011	В	Red	2.0 - 2.6	29-38
9901000008	С	Yellow	3.8 - 4.6	55-67
9901000009	D	Green	5.8 - 6.6	84-96

Units per Case	W∈ight (kg)	Volume (m³)				
1	2.8	0.01				
1	2.8	0.01				
1	2.8	0.01				



Standard Configuration:

- All valves are pre-tested and ready for installation and start-up
- Main Valve: ¾" & 1" Plastic, 1½": Plastic & Metal ,2" Metal
- Threaded Ends: NPT or BSP
- Standard Configuration Main Valve: ¾" & 1" Plastic: 1½" Plastic & Brass, 2" Metal

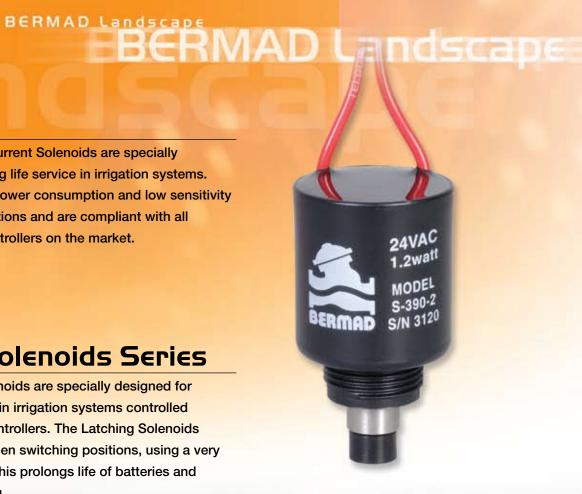


S Series

BERMAD Continuous Current Solenoids are specially designed for reliable long life service in irrigation systems. They excel in their low power consumption and low sensitivity to dirt and voltage variations and are compliant with all Continuous Current Controllers on the market.

Latching Solenoids Series

BERMAD Latching Solenoids are specially designed for reliable long life service in irrigation systems controlled by Battery Operated Controllers. The Latching Solenoids consume power only when switching positions, using a very short electric impulse. This prolongs life of batteries and enables solar recharging.





S Series - Technical Specifications

S-390-2W

2-Way Solenoid Actuator

Actuator Type	Cable Color Power (Watt)		Curren	t (Amp)	Coil Resistance
Actuator Type	Cable Color	Power (watt)	Inrush	Hold	ohm@20°C; 68°F
S390-2W-24VAC-R	Red/Red	1.7	0.25	0.125	37.5
S390-2W-24VAC-D	Red/Orange	2.2	0.13	0.13	*
S390-2W-24VDC	Black/Black	3.6	0.18	0.18	156
S390-2W-12VDC	Blue/Blue	4.0	0.33	0.33	36

S-390-3W

3-Way Solenoid

Actuator Type	Cable Color	Power	Current (Amp)		Coil Resistance
Actuator Type	Cable Color	(Watt)	Inrush	Hold	ohm@20°C; 68°F
S-390-3W-24VAC-D NO	Red/Orange	2.2	0.13	0.13	37.5
S-390-3W-24VAC-D NC	Orange/Blue	3.5	0.20	0.20	*
S-390-3W-24VAC-R NO	Red/Red	2.9	0.46	0.24	21
S-390-3W-24VDC NO & NC	Black/Black	4.2	0.17	0.17	135
S-390-3W-12VDC NO & NC	Blue/Blue	4.0	0.33	0.33	36

S-392-2W

2-Way Magnetic Latch Solenoid Actuator, 9VDC Latch, 2- Leads

Electrical Data:

Voltage Range: 6-20 VDCCoil Resistance: 6Ω Coil Inductance: 90 mH

Pulse Width: 20-100 mSec.

Required Capacitor: 4700µF

Operation Modes (electrical connections):

+Red & -Black: Latch Position +Black & -Red: Released Position

5-982-3W

3-Way Dry Magnetic Latch Solenoid with Isolating Membrane & Hydraulic Base, I2VDC Latch, 2- Leads

Electrical Data:

Voltage Range: 12-50 VDC Coil Resistance: 4.2Ω Pulse Width: 20-100 mSec. Required Capacitor: 4700μF

Operation Modes (electrical connections):

+ Red & - Black: Solenoid vents+ Black & - Red: Solenoid pressurizes

Pressure & Flow Data:

Operating Pressure Range: 0-10 bar Base Orifice Diameter: 2.2 mm

Base Flow Factor:

Pressure port Kv = 0.12 m³/h @ 1 bar Δ P

 $Cv = 0.14 \text{ GPM } @1 \text{ psi } \Delta P$

Exhaust port $Kv = 0.14 \text{ m}^3/\text{h}$ @ 1 bar ΔP Cv = 0.16 GPM @1 psi ΔP

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Connections:
1- Vent 2- Valve Control Chamber

ber **3-** Pressure





BERMAD Solenoid S SEriES

BERMAD Continuous Current Solenoids

2-Way Solenoid Actuator

S-390-2W

Voltage	Normal State	Inrush (Amp)	Holding (Amp)	Рошег (Watt)	Cat. No.
24VAC	N.C	0.25	0.125	1.70	S3902WR2450NC00B



Units per case	Weight (kg)	Volum∈ (m3)				
100	11.2	0.016				

3-Way Solenoid With Plastic Base

S-390-3W

Voltag∈	Normal State	Inrush (Amp)	Holding (Amp)	Power (Watt)	Cat. No.
24VAC-D	N.O	0.13	0.13	2.20	S3903WD24ACNOBOB
24VAC-R	N.O	0.46	0.24	2.90	S3903WR24ACNOBOB
24VAC-D	N.C	0.20	0.20	3.50	S3903WD24ACNCBCB



Units per case	Weight (kg)	Volum∈ (m3)				
50	7.66	0.016				

BERMAD Latching Solenoids

2-Way Magnetic Latch Solenoid Actuator, 9V/DC Latch, 2-Leads

S-392-2W

Voltage	Normal State	Min Pulse length (m ^{sec})	Resistance (Ohm)	Cat. No.
6-20	N.O	20	6	S3922W009DCNC00B



Units per case	Weight (kg)	Volum∈ (m3)			
50	6	0.016			

3-Way Dry Magnetic Latch Solenoid Actuator with Isolating Membrane & Hydraulic Plastic Base, I2V/DC Latch, 2-Leads

S-982-3W

Voltage	Normal State	Min Pulse length (m ^{sec})	Resistance (Ohm)	Cat. No.
12-50	N.O / N.C	20	4	S9823W012DC00BBB



Units per case	Weight (kg)	Volum∈ (m3)				
50	10.3	0.016				





BERMAD Plastic Control Tube Fittings

FT Series

BERMAD Plastic Control Tube Fittings

	Model Code	Description	ltem #
8	FT 88	STRAIGHT TUBE CONNECTOR 8mm - 8mm	3656005600
	FT 18	STRAIGHT CONNECTOR 1/8"-8mm	3608025600
9	FT 28	ELBOW CONNECTOR 1/8"-8mm	3608015600
	FT 58	ELBOW CONNECTOR 1/4"-8mm	3604015600
	FT 38	¹ /8" NPT MALE PLUG	3608070000
	FT 34	14" NPT MALE PLUG	3604070000
)	FT 32	³ /8" NPT MALE PLUG	3638070200
	FT 11	BUSHING MALE-FEMALE 1/8" -1/8"	3608050805
	FT 48	BUSHING MALE-FEMALE 1/4"-1/8"	3604050805
	FT 98	T-CONNECTOR FOR TUBE 8mm-8mm-8mm	360807T600
	FT 98/1	T-CONNECTOR FOR TUBE 8mm-1/8"-8mm	360807B600
	FT 08	COUPLER FOR 8mm TUBE	3608025602



BERMAD Standard International Warranty

BERMAD manufactured products are guaranteed to be free from defect in material and/or workmanship and to perform as advertised when properly installed, used and maintained in accordance with current instructions, written or verbal.

Should any item prove defective within the period set forth for that item, but in any case not later than within 12 (twelve) months from the time that product left BERMAD's premises, and shall be received by BERMAD or its authorized representative, or written notice thereof from the purchaser within 30 days of discovery of such failure – BERMAD will repair or replace any item proven defective in workmanship or material, or will refund the purchase price, at its sole option.

BERMAD will not be responsible for, nor does this warranty extend to, any consequential or incidental damages or expenses of any kind or nature, of any kind, regardless of the nature thereof, including without limitation injury to persons or property, loss of use of the products, loss of goodwill, loss of profits, or any other contingent liabilities of any kind or character alleged to be the cause of loss or damage to the purchaser.

This warranty does not cover damage or failure caused by misuse, abuse or negligence, nor shall it apply to our products upon which repairs or alternations have been made by other than an authorized BERMAD representative.

This warranty does not extend to components, parts or raw materials used by BERMAD but manufactured by others, which shall be covered only to the extent warranted by the manufacturer's warranty.

There are no warranties, express or implied, except this warranty, which is given in lieu of any other warranties, express or implied, including any implied warranty of fitness for a particular purpose.



Bermad Landscape

Ordering Guide

BERMAD

Water Control Solutions











