



Solenoid Valves

**Solenoid Valves
(Product Catalogue)**





Dorot, part of Matholding Group since 2014, is one of the world's leading manufacturers and developers of sustainable technologies and products for water control and optimization systems. With more than 70 years of experience, the company is a worldwide pioneer in providing high quality solutions for Hydraulic Controlled Valves and Air Valves.

Customers around the globe benefit on a daily basis from our experience and wide variety of solutions and services in the following areas:

- **Waterworks Distribution Systems for civil and industrial engineering**
- **Fire Protection**
- **Industrial Applications such as Mining, Wastewater, Marine**
- **Water Treatment and Filtration**
- **Agricultural and Landscape Irrigation**
- **Water Metering and others**





Innovation and expertise are the backbones of Dorot. It drove us into developing a diverse portfolio of water and other fluids systems application, in compliance with specifications and international quality standards. Customer satisfaction and recognition is of paramount importance for Dorot. This guarantees uncompromised know-how, expertise and professionalism in planning, designing and providing the optimal hydraulic control solutions.



We invite you to join our family of business partners. Together we can provide the best control solutions for the world's most valuable natural resource: **water**

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DOROT CONTROL VALVES is proud to present the new catalogue of its solenoid operators. In this catalogue, users will find technical specifications of the new solenoid operators, designed by DOROT for highest performance in irrigation systems.

This catalogue is aimed to:

- Present the benefits of the DOROT new solenoid operators and solenoid valves.
- Supply the required technical data for selecting the adequate solenoid operator or solenoid valve.
- Guiding the user in the precise ordering procedure

The catalogue contains information regarding the new DOROT solenoid operators, solenoid base and solenoid valve.



S80-2

The DOROT S80-2 operator is designed for electric activation of automatic control valves in irrigation systems controlled by continuous current controllers.

The S80-2 operator offers the highest hydraulic performance, low power consumption and long-life service.

The S80-2 operator is assembled directly into the valve bonnet (integral solenoid assembly), or assembled on a 2-way base, allowing electric activation of various control circuits.

The S80-2 offers low sensitivity to dirt and voltage fluctuations and is compatible to most continuous current controllers available.

Applications

- On / Off activation of irrigation valves.
- Electric activation of flow and pressure regulation systems.

Benefits

- Low sensitivity to dirt.
- Exceptional hydraulic performance (up to 10 bar with 2.4mm orifice)
- Low sensitivity to voltage fluctuations.
- High quality materials for maximum mechanical durability.
- High reliability and low maintenance.
- Compatible with most continuous current controllers available.



Technical Data

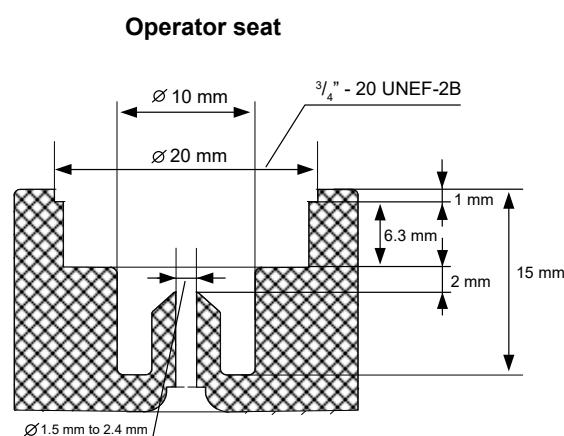
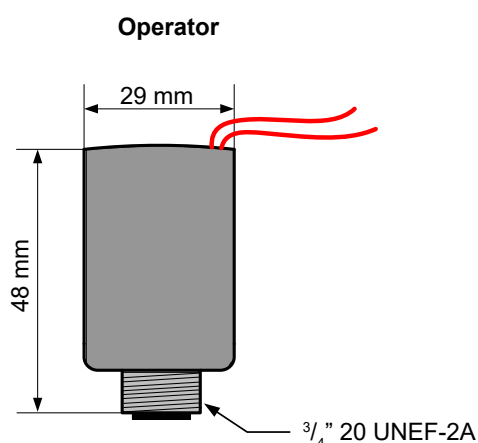
Operator type	Wires color	Operator mark	Operator type	Frequency	Current (Amp)		Cat. No.
					Inrush	Holding	
2W 24 VAC	Red	S80-2 24VAC N.C	2W N.C. 24 VAC	50 Hz	0.25	0.11	T30040450550001
				60 Hz	0.22	0.095	
2W 24 VDC	Black	S80-2 24VDC N.C	2W N.C. 24 VDC		0.12	0.12	T30040450350001
2W 12 VDC	Blue	S80-2 12VDC N.C	2W N.C. 12 VDC		0.28	0.28	T30040440350001

Voltage:	24 VAC, 24 VDC, 12 VDC
Allowed deviation from voltage:	± 10%
Connecting wires:	2 wires, cross-section- 0.32 mm ² length - 80 cm
Operating pressure range:	0-10 bar (up to 2.4mm orifice)
Base connection:	3/4" 20 UNEF-2A male threaded
Manual override (optional):	knob (in the valve bonnet) or selector (turn)
Protection:	IP-66

Materials:

Body	Coated Steel
Seals	NBR
Internals	SST

Dimensions:



S92-2

The DOROT S92-2 / S93-2 Latch operator is a 2-way latching operator, designed for electric activation of automatic control valves of irrigation systems, which are activated by battery- operated controllers. The S92-2 / S93-2 Latch operator switches position due to short electric pulses. This feature extends the battery life as the power consumption is minimal.

The S92-2 / S93-2 Latch operator is assembled into the valve bonnet (integral solenoid assembly), with rotating on/off override, or with a 2-way base, allowing electric activation of various control circuits.

The S92-2 / S93-2 Latch operator offers low sensitivity to dirt and is compatible to most battery- powered controllers.

Applications

- On / Off activation of irrigation valves.
- Electric activation of flow and pressure regulation systems.
- Actuation by battery- powered controller.

Benefits

- Low sensitivity to dirty water.
- Exceptional hydraulic performance (up to 10 bar with 1.8mm orifice)
- Requires very short pulse for activation.
- Requires low operating voltage.
- Wide range of operating voltages.
- High quality materials for maximum mechanical durability.
- Compatible with most pulse-signal controllers.
- Applicable with solar- charged controllers.
- High reliability and low maintenance.



TECHNICAL DATA

Operator type	Wires	Wire color	Operator mark	Cat. No.
2W Latch 7.5-30 VDC	2	Red / Black	S92-2 7.5-30 VDC Latch	T300404C0450001
2W Latch 7.5-30 VDC	3	Red / Black / White	S93-2 7.5-30 VDC Latch	T300404C0460001

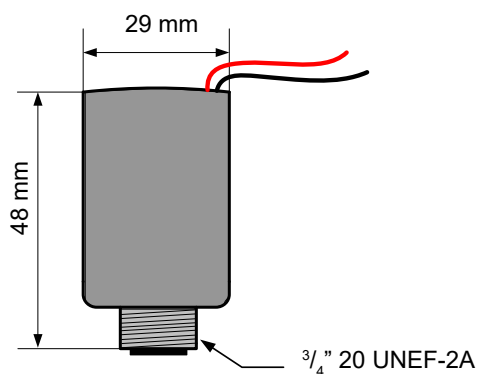
Voltage:	7.5- 30 VDC (requires capacitor of 4700µf)
Connecting wires:	2 wires, cross-section - 0.32 mm ² length - 80 cm
Operating pressure range:	0-10 bar (up to 1.8mm orifice)
Assembly connection:	3/4" 20 UNEF-2A male threaded
Manual override (optional):	selector (turn)
Minimal pulse width:	15 ms
Maximal pulse width:	100 ms
Coil resistance:	5.1Ω (other resistances on request)
Protection:	IP-66

Materials:

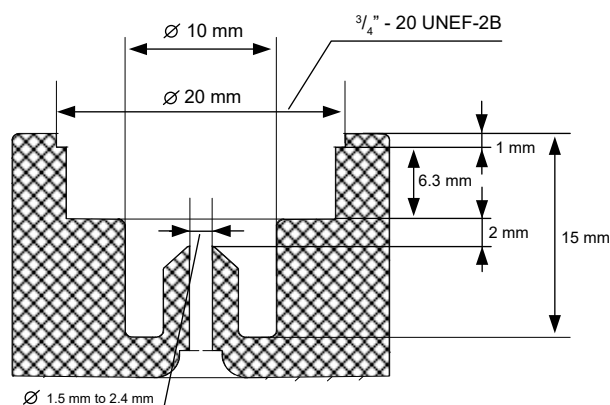
Body	Coated Steel
Seals	NBR
Internals	SST

Dimensions:

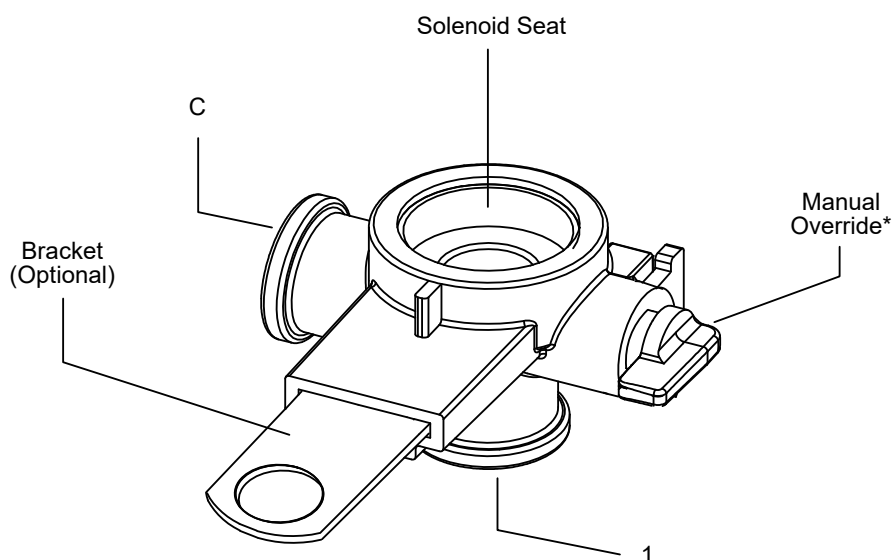
Operator



Operator seat



The DOROT solenoid valve base enables 2-way or 3-way solenoid valves be added to various control circuits. The base is designed to allow maximal through flow and to withstand rough environmental conditions. Stainless steel bracket, for installation on the hydraulic valve or on solenoids manifold, is supplied on request.



* Not available for latching solenoid valves

Materials:

Body	Glass Reinforced Polyamide
Seals	Rubber
Override	Polybutylene
Bracket	SST

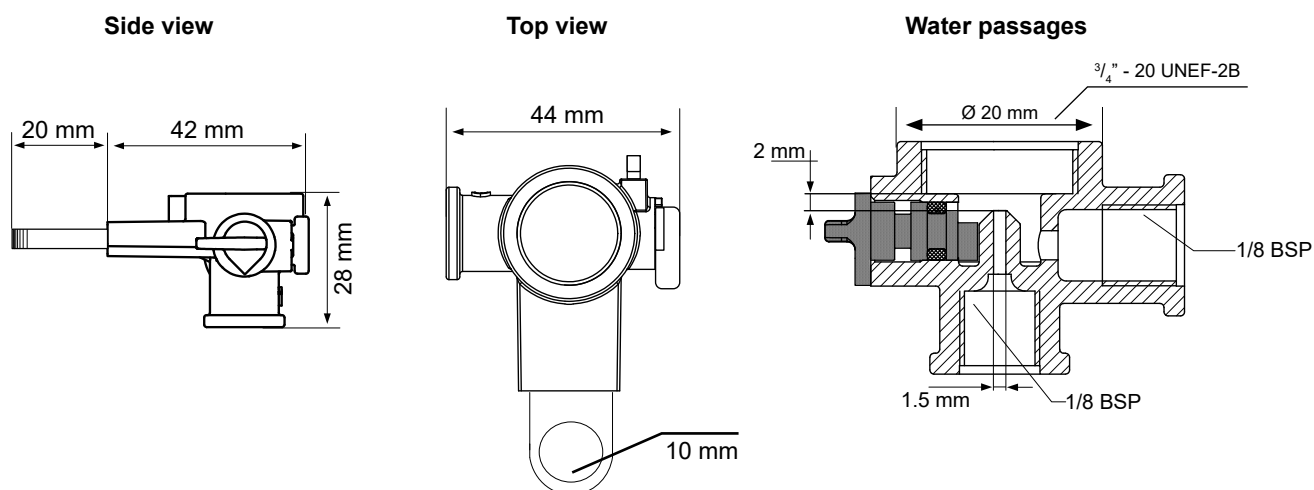
Connections:

Port connections	1/8" BSP F
Operator connection	3/4" 20 UNEF
Orifice diameter	1.5 mm

Cat. No:

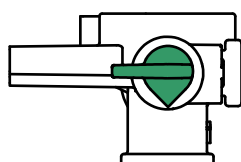
Base:	E35510400000001
Base with bracket:	E35510400000002

Dimensions:

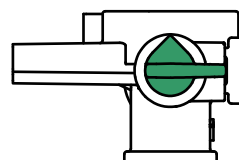


Manual override operating:

Automatic operation



Manually open



S80-3 / S80-3-D / S80-3-R

The DOROT S80-3, S80-3-D and S80-3-R are 3-way solenoid valves, designed for electric activation of various control circuits of irrigation valves, which are controlled by continuous or alternating current controllers.

The DOROT S80-3 / S80-3-D / S80-3-R 3-way operator is assembled on the DOROT solenoid base, forming an independent control device.

The solenoid valve allows electric remote- control of On/Off, Pressure and Flow regulating valves, while assuring the highest hydraulic performance, low power consumption and long service life.

The S80-3, S80-3-D and s80-3-R solenoid valves are compatible to most controllers' types found in the market.

Applications

- On / Off activation of irrigation valves.
- Electric remote control of hydraulic and pneumatic systems.
- Electric activation of flow and pressure regulation systems.

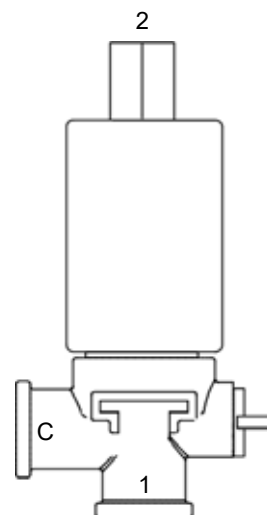
Benefits

- Low power consumption.
- Low sensitivity to dirty water.
- Exceptional hydraulic performance.
- Low sensitivity to voltage fluctuations.
- High quality materials for maximum durability.
- High reliability and low maintenance.
- Compatible with most controllers.
- High flow rate, causing fast valve reaction.
- S80-3 offers exceptional resistance to lightning related voltage spikes.



Base connections:

Port	C	1	2
3-way N.C	Command	pressure	Vent
3-way N.O	Command	Vent	pressure



Technical Data

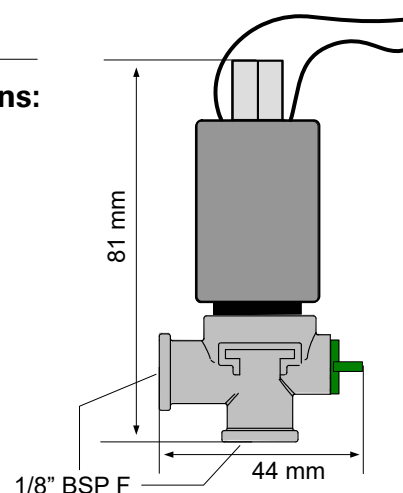
Operator type	Wires color	Operator mark	Frequency	Current (Amp)		Cat. No. Solenoid Valve (base+operator)	Cat. No. Solenoid operator
				Holding	Inrush		
3W N.O. 24 VAC	Red / Brown	S80-3-D 24VAC N.O.	50 Hz	0.115	0.115	S35510850550001	T30010450550001
			60 Hz	0.111	0.111		
3W N.C. 24 VAC	Red / Blue	S80-3-D 24VAC N.C.	50 Hz	0.17	0.17	S35520850550001	T30020450550002
			60 Hz	0.16	0.16		
3W-R-N.O. 24 VAC	Red	S80-3-R 24VAC N.O.	50 Hz	0.25	0.5	S35510850550003	T30010450550003
			60 Hz	0.18	0.42		
3W N.O. 24 VDC	Black	S80-3 24VDC N.O.		0.12	0.12	S35510850350001	T30010450350001
3W N.O. 12 VDC	Blue	S80-3 12VDC N.O.		0.28	0.28	S35510840350001	T30010440350001

Voltage:	24 VAC, 24 VDC, 12 VDC
Allowed deviation from voltage:	± 10%
Connecting wires:	2 wires, cross-section - 0.32 mm ² length - 50 cm
Operating pressure range:	0-10 bar
Assembly connection:	3/4" 20 UNEF
Manual override:	knob
Orifice diameter:	1.5 mm
Protection:	IP-66

Materials:

Body	Coated Steel
Seals	NBR
Internals	SST
Base	Glass Reinforced Polyamide

Dimensions:



Manual override operating:

Automatic operation



Manually open



S92-3 / S93-3

The DOROT S92-3 (2 wires) and S93-3 (3 wires) Latch 3-way solenoid valves are designed for electric activation of automatic control valves of irrigation systems, which are activated by battery-operated controllers.

The S92-3 / S93-3 Latch operator switches position due to short electric pulses. This feature extends the battery life as the power consumption is minimal.

The Dorot S92-3 / S93-3 Latch operators are assembled on the Dorot solenoid base, forming an independent control device.

The solenoid valve allows electric remote- control of On/Off, Pressure and Flow regulating valves, while assuring the highest hydraulic performance, minimal power consumption and long service life.

The S92-3 / S93-3 Latch operators offer low sensitivity to dirt and are compatible to most battery-powered controllers.

Applications

- On / Off activation of irrigation valves.
- Remote control of pressure and flow regulating valves.
- Actuation by battery- powered controller.

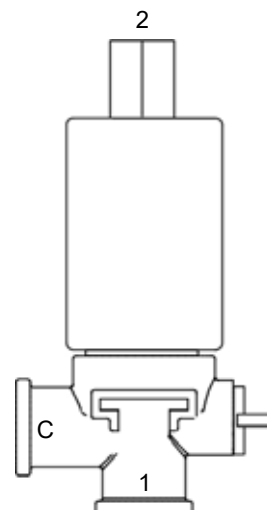
Benefits

- Low sensitivity to dirty water.
- Exceptional hydraulic performance (up to 10 bar with 1.5mm orifice)
- Requires very short pulse for activation.
- Requires low operating voltage.
- Wide range of operating voltages.
- High quality materials for maximum mechanical durability.
- Compatible with most pulse-signal controllers.
- Applicable with solar- charged controllers.
- High reliability and low maintenance.



Base connections:

Port	C	1	2
3-way	Command	Vent	pressure



Technical Data

Operator type	Wires	Wire color	Operator mark	Cat. No.
3W Latch 7.5-30 VDC	2	Red/ Black	S92-3 7.5-30 VDC Latch	S35510820450002
3W Latch 7.5-30 VDC	3	Red/ Black/ White	S93-3 7.5-30 VDC Latch	S310110C0460001

Voltage:	7.5- 30 VDC (requires capacitor of 4700µf)
Connecting wires:	2 or 3 wires, cross-section - 0.32 mm ² length - 80 cm
Operating pressure range:	0-10 bar (up to 1.5mm orifice)
Assembly connection:	3/4" 20 UNEF-2A male threaded
Minimal pulse width:	15 ms
Maximal pulse width:	100 ms
Coil resistance:	9Ω (other resistances on request)
Protection:	IP-66

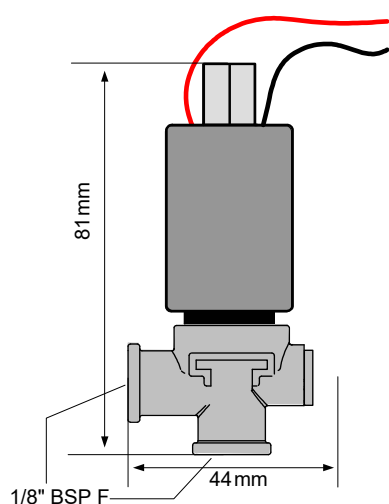
Materials:

Body	Coated Steel
Seals	NBR
Internals	SST

Electric Connections:

White (+)	Common
Red (-)	Latch
Black (-)	Release

Dimensions:





Innovation

Innovation

Expertise

Reliability

Hundreds of companies in the industrial, civil engineering, municipal and agricultural sectors around the world have chosen DOROT's innovative and field-proven technologies. Since its establishment in 1946, DOROT leads the valves market with continued innovation, uncompromising excellence and firm commitment to its customers, consulting and supporting them through all stages of a project and overcoming challenges in R&D, design, implementation, and maintenance.



matholding group

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