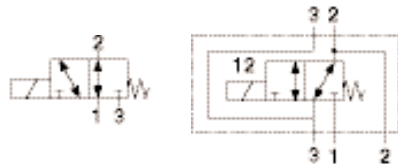


Herion 24011 Series

Direct solenoid actuated poppet valves

5 mm orifice (ND)

3/2, Universal, G1/4, 1/4-18 NPT, flange with NAMUR interface



Main application: single operated process actuators

TÜV-approval based on IEC 61 508, DIN V 19 251. Approvals: DIN EN 161/3394 DVGW, group Rm and EN 13611

Valves for safety systems to SIL 4 or AK 7

Standard NAMUR type manifold system for easy assembly

Redundancy: 1 of 2, 2 of 3

Add-on manual override or inductive limit switches

Valve switches at power failure into starting position (mechanical return spring)

Rest position in the event of power failure provided by mechanical return spring

These solenoids are ATEX approved

Suitable for outdoor use under critical environment conditions (see solenoid list)

Technical data

Medium:

Neutral or aggressive gaseous or liquid fluids

Operating pressure:

0 to 10 bar

Flow:

340 l/h

Flow direction:

Optional

Mounting position:

Optional, preferably vertical

Fluid temperature:

-25°C to +80°C NBR

-10°C to +120°C FPM, water up to +95°C

-40°C to +60°C VMQ

For temperatures below 0°C use conditioned dry air. If installed outdoors protect all connections against the penetration of moisture.

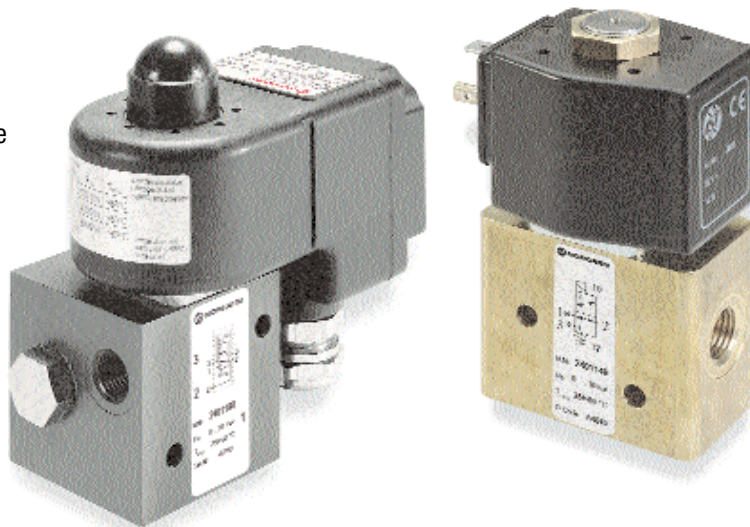
Consult our Technical Service for use below +2°C

Materials

Body: stainless steel 1.4404/316L, brass, hard anodized aluminium

Seat seal: FPM (Viton), NBR (Perbunan), (VMQ) Silicon

Inner parts: stainless steel, brass



Valves with threaded connection

Brass valves

Solenoid group	Port size	Operating pressure (bar)#	Materials Seat seal	Manual override	Drawing no.	kg	Model	Test certificate IEC 61 508**
A + B	G 1/4	0 ... 10	NBR	–	1	0,65	2401103xxxx*****	
A + B	G 1/4	0 ... 10	NBR	Push only	1	0,70	2401107xxxx*****	
A + B	G 1/4	0 ... 10	NBR	Push and lock	1	0,70	2401119xxxx*****	
A + B	G 1/4	0 ... 10	NBR	–	1	0,65	2401149xxxx*****	●
A + B	G 1/4	0 ... 10	FPM	–	1	0,65	2401126xxxx*****	●
A + B	G 1/4	0 ... 10	FPM	Push and lock	1	0,70	2401135xxxx*****	
A + B	G 1/4	0 ... 10	Silicon*	–	1	0,65	2401153xxxx*****	●
A + B	G 1/4	0 ... 10	Silicon*	Push only	1	0,70	1025235xxxx*****	
A + B	G 1/4	0 ... 10	Silicon*	Push and lock	1	0,70	2401132xxxx*****	
A + B	G 1/4	0 ... 10	Silicon*	Semi-automatic	1	0,70	2401154xxxx*****	
A + B	1/4 NPT	0 ... 10	NBR	–	1	0,65	2401138xxxx*****	●
A + B	1/4 NPT	0 ... 10	NBR	Push only	1	0,70	2401148xxxx*****	
A + B	1/4 NPT	0 ... 10	NBR	Push and lock	1	0,70	2401136xxxx*****	
A + B	1/4 NPT	0 ... 10	NBR	Semi-automatic	1	0,70	2401140xxxx*****	
A + B	1/4 NPT	0 ... 10	FPM	–	1	0,65	2401131xxxx*****	●
A + B	1/4 NPT	0 ... 10	Silicon*	–	1	0,65	2401106xxxx*****	●
A + B	1/4 NPT	0 ... 10	Silicon*	Semi-automatic	1	0,70	1025226xxxx*****	

Stainless steel valves (1.4404) for aggressive environment

Solenoid group	Port size	Operating pressure (bar)#	Materials Seat seal	Manual override	Drawing no.	kg	Model	Test certificate IEC 61 508**
A + B	G 1/4	0 ... 10	NBR	–	1	0,65	2401186xxxx*****	●
A + B	1/4 NPT	0 ... 10	NBR	–	1	0,65	2401112xxxx*****	●
A	G 1/4	0 ... 10	FPM	–	1	0,70	2401127xxxx*****	
A	G 1/4	0 ... 10	FPM	Push only	1	0,70	2401170xxxx*****	
A	G 1/4	0 ... 10	FPM	Push and lock	1	0,70	2401139xxxx*****	
A	G 1/4	0 ... 10	FPM	Semi-automatic	1	0,70	2401145xxxx*****	
A	G 1/4	0 ... 10	Silicon*	–	1	0,65	2401155xxxx*****	
A	G 1/4	0 ... 10	Silicon*	Semi-automatic	1	0,70	2401156xxxx*****	
A	1/4 NPT	0 ... 10	FPM	–	1	0,65	2401147xxxx*****	
A	1/4 NPT	0 ... 10	FPM	Semi-automatic	1	0,70	2401146xxxx*****	
A	1/4 NPT	0 ... 10	Silicon*	–	1	0,65	2401168xxxx*****	

xxxx Insert solenoid code from tables below. ***** Insert voltage code from table below

* For ambient temperatures down to -40°C

** Approval is not included in delivery, part No. 0695241.

Viscosity for gaseous or liquid fluids up to 40 mm²/s

Particularity for valves with TÜV approval and installation in plants, based on safety standards DIN V 19250, IEC 61511, taking into account Maintenance instruction document 7503444.

The responsibility for the maintenance and repair of the solenoid valves lies with the users or the supervisory authority for these process systems.

Herion 24011 Series

Direct solenoid actuated poppet valves
5 mm orifice (ND)

3/2, Universal, G $\frac{1}{4}$, 1/4-18 NPT, flange with NAMUR interface

Valves with NAMUR interface

Aluminium valves anodized

Solenoid group	Port size	Operating pressure (bar)##	Materials Seat seal	Manual override	Drawing no.	kg	Variants	Model	Test certificate IEC 61 508**
A + B	G 1/4	0 ... 10	NBR	Add-on	2	0,55	–	2401191xxx*****	●
A + B	G 1/4	0 ... 10	NBR	Add-on	2	0,70	With limit switch	1025333xxx*****	
A + B	1/4 NPT	0 ... 10	NBR	Add-on	2	0,55	–	1025254xxx*****	●
A + B	G 1/4	0 ... 10	Silicon*	Add-on	2	0,55	–	2401133xxx*****	●
A + B	G 1/4	0 ... 10	NBR	Add-on	3	0,55	P in flange interface#	2401109xxx*****	●

Stainless steel valves (1.4404) for aggressive environment

A	G 1/4	0 ... 10	NBR	Add-on	2	1,00	–	2401196xxx*****	
A	G 1/4	0 ... 10	Silicon*	Add-on	2	1,00	–	2401142xxx*****	
A + B	G 1/4	0 ... 10	NBR	Add-on	3	1,00	P in flange interface#	1025212xxx*****	●
A + B	1/4 NPT	0 ... 10	NBR	Add-on	3	1,00	P in flange interface#	1025328xxx*****	●

xxxx Insert solenoid code from tables below. ***** Insert voltage code from table below

* For ambient temperatures down to -40°C

** Approval is not included in delivery, part No. 0695241.

Acc. to VDI/VDE 3845 port P in flange for attachment of positioners

Viscosity for gaseous or liquid fluids up to 40 mm²/s

Approval S 137/01, SIL 4 for low demand mode, SIL 3 for high demand mode, Approval S 83/96, AK 7 (request from manufacturer)

Particular for valves with TÜV approval and installation in plants, based on safety standards DIN V 19250, IEC 61511, taking into account Maintenance instruction document 7503444.

The responsibility for the maintenance and repair of the solenoid valves lies with the users or the supervisory authority for these process systems.

Options selector

1025XXX ★★★★★★
2401XXX ★★★★★★

Solenoid	Voltage	Substitute
See solenoid tables	24 V d.c.	02400
	230 V a.c.	23050
	110 V a.c.	11050
	230 V a.c.	23050

Other voltages on request

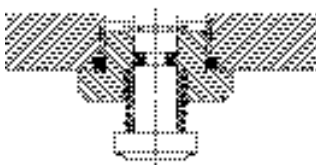
Accessories

Cable glands Protection class EEx e, EEx d (ATEX), Ms nickel plated brass	Connectors	Flange plate	Yoke
EEx e 0588819 (for solenoid 42xx /46xx M20 x 1,5)	0570275	0612790 Single connection plate	0540593
EEx e 0588851 (for solenoid 46xx M20 x 1,5)		0612791 NAMUR-rip use in combination with 0612790 (Alu)	
EEx d, EEx e 0588925 (for solenoid 46xx 1/2-14 NPT)			

Add-on manual overrides

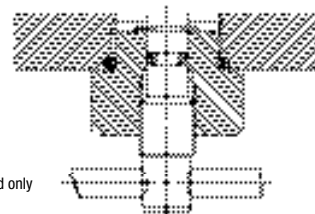
Push button

Model 0600205



Turn & lock

Model 0601765



Please note: add-on manual override for NAMUR valves provided only for commissioning and tests




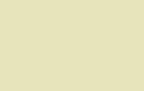

Herion 24011 Series

Direct solenoid actuated poppet valves




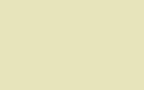

5 mm orifice (ND)

3/2, Universal, G $\frac{1}{4}$, 1/4-18 NPT, flange with NAMUR interface

Group A solenoids

	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Voltage 24 V d.c. (mA)	230 V a.c. (mA)	Protection category	Protection class	Temperatures Ambient/fluid °C	Electrical connection	kg	Solenoid drawing no.#	Circuit diagram no.#	Model
	16,9	–	703	–	–	IP00 without plug ⁵⁾ IP65 with plug ⁵⁾	-25 ... +60	DIN EN175W301-803 Form A ⁶⁾	0,33	10	1	0800 ⁷⁾
	–	18	–	75	–	IP00 without plug ⁵⁾ IP65 with plug ⁵⁾	-25 ... +60	DIN EN175W301-803 Form A ⁶⁾	0,34	11	6	3803 ⁷⁾
	8,9	–	369	–	II2G	EEx me II T4/T5 ²⁾ IP66 T130°C	-40 ... +65/55	M20x1,5 ⁶⁾	0,6	13	4	4270 ⁸⁾
	–	10	–	43	II2D	EEx me II T4/T5 ²⁾ IP66 T130°C	-40 ... +65/55	M20x1,5 ⁶⁾	0,6	13	7	4271 ⁸⁾
	8,9	–	369	–	II2G	EEx md IIC T4/T6 ³⁾ IP66 T130°C	-40 ... +65/55	1/2 NPT ⁶⁾	0,8	14	4	4670 ⁸⁾
	–	10	–	43	II2D	EEx me IIC T4/T6 ³⁾ IP66 T130°C	-40 ... +65/55	1/2 NPT ⁶⁾	0,8	14	7	4671 ⁸⁾
	8,9	–	369	–	II2G	EEx md IIC T4/T6 ³⁾ IP66 T130°C	-40 ... +65/55	M20x1,5 ⁶⁾	0,8	14	4	4672 ⁸⁾
	–	10	–	43	II2D	EEx me IIC T4/T6 ³⁾ IP66 T130°C	-40 ... +65/55	M20x1,5 ⁶⁾	0,8	14	7	4673 ⁸⁾
	13,6	–	566	–	–	XP NEMA ⁴⁾	-20 ... +60	Flying leads 450 mm	0,4	15	1	3826
	–	15,7	–	68	–	4, 4X, 6, 6P, 7, 9 XP NEMA ⁴⁾	-20 ... +60	Flying leads 450 mm	0,4	15	5	3827

Group B solenoids

	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Voltage 24 V d.c. (mA)	230 V a.c. (mA)	Protection category	Protection class	Temperatures Ambient/fluid °C	Electrical connection	kg	Solenoid drawing no.#	Circuit diagram no.#	Model
	6,8	–	282	–	–	II00 without plug ⁵⁾ IP65 with plug ⁵⁾	-25 ... +60	DIN EN175W301-803 Form A ⁶⁾	0,33	10	1	0827 ⁷⁾
	–	10,6	–	46	–	IP00 without plug ⁵⁾ IP65 with plug ⁵⁾	-25 ... +60	DIN EN175W301-803 Form A ⁶⁾	0,34	11	6	3805 ⁷⁾
	4	–	162	–	II2G	EEx me II T4/T6 ²⁾ IP66 T130°C	-40 ... +80/+55	M20 x 1,5 ⁶⁾	0,6	13	4	4260 ⁸⁾
	–	5,3	–	23	II2D	EEx me II T4/T6 ²⁾ IP66 T130°C	-40 ... +80/+55	M20 x 1,5 ⁶⁾	0,6	13	7	4261 ⁸⁾
	4	–	162	–	II2G	EEx md IIC T4/T6 ³⁾ IP66 T130°C	-40 ... +80/+55	1/2 NPT ⁶⁾	0,8	14	4	4660 ⁸⁾
	–	5,3	–	23	II2D	EEx me IIC T4/T6 ³⁾ IP66 T130°C	-40 ... +80/+55	1/2 NPT ⁶⁾	0,8	14	7	4661 ⁸⁾
	4	–	162	–	II2G	EEx md IIC T4/T6 ³⁾ IP66 T130°C	-40 ... +80/+55	M20x1,5 ⁶⁾	0,8	14	4	4662 ⁸⁾
	–	5,3	–	23	II2D	EEx me IIC T4/T6 ³⁾ IP66 T130°C	-40 ... +80/+55	M20x1,5 ⁶⁾	0,8	14	7	4663 ⁸⁾
	8,9	–	370	–	–	NEMA ⁴⁾	-20 ... +60	Flying leads 450 mm	0,4	15	1	3824
	–	9,5	–	41	–	4, 4X, 6, 6P, 7, 9 NEMA ⁴⁾	-20 ... +60	Flying leads 450 mm	0,4	15	5	3825

Standard voltages 24 V d.c., 230 V a.c. Other voltages on request. Design acc. to VDE 0580, EN 50014/50028. 100% duty cycle.

For solenoid dimensional drawings and circuit diagrams, see page 143

2) Category II 2 GD, EC-Type Examination Certificate KEMA 98 ATEX 4452 X

3) Category II 2 GD, EC-Type Examination Certificate PTB 02 ATEX 2085 X

4) CSA-LR 57643-6, FM approved, for hazardous locations: Div. 1 and 2, Class I, II, III

5) Required connector for d.c. type 0570275. Connector with rectifier for a.c. or universal current: type 0663303

6) Connector/cable gland not supplied, see 'Accessories' table

7) Suitable for outdoor installation only if equipped with a special protection (e.g. cubicle installation)

8) This solenoid has a fuse with an appropriate rating.

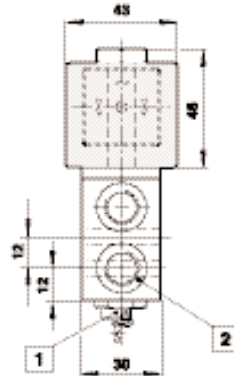
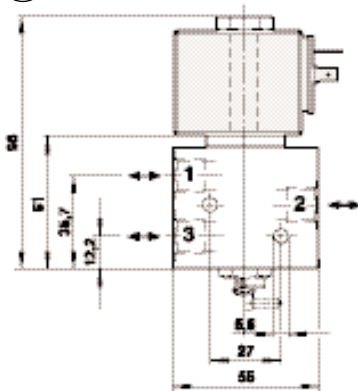
Herion 24011 Series

Direct solenoid actuated poppet valves

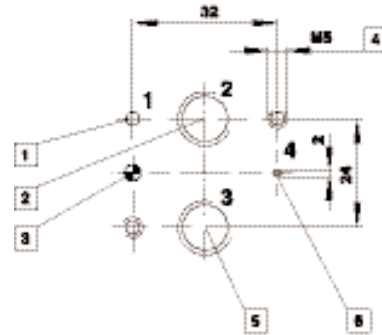
5 mm orifice (ND)

3/2, Universal, G $\frac{1}{4}$, 1/4-18 NPT, flange with NAMUR interface

1

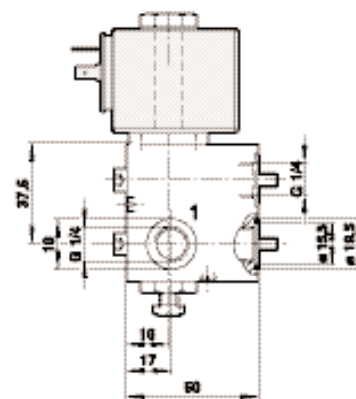
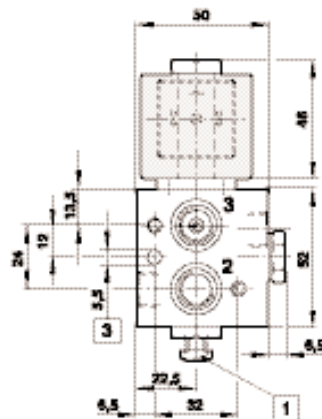
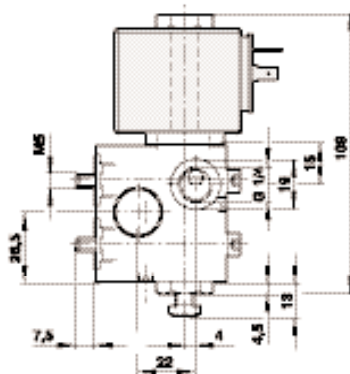


NAMUR hole pattern

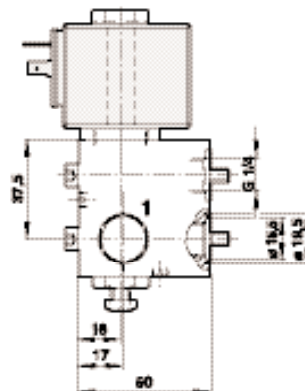
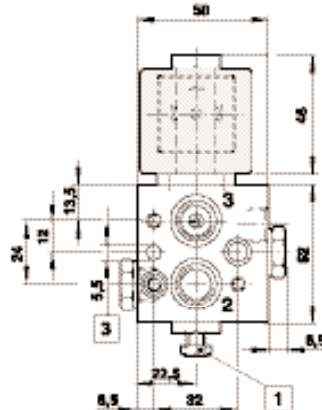
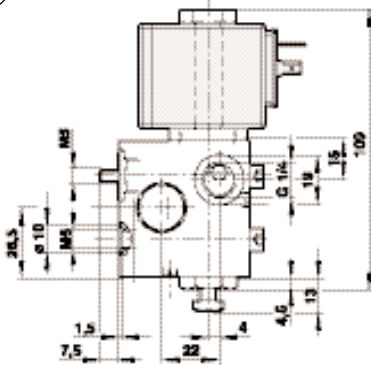


- 1 Pilot air (1), only in valves with note 'p port in flange interface'
- 2 Port 2 (A)
- 3 Coding stud threaded
- 4 M5 (10 deep)
- 5 Port 3 (R)
- 6 External air supply, only in valves with note 'p port in flange interface'

2



3



- 1 Add-on manual override, see page 115
- 2 Port size G 1/4 or 1/4 NPT
- 3 3 deep

