

# HERION 97100 SERIES Indirect solenoid actuated spool valves for single and double acting actuators with NAMUR interface

6 mm orifice (ND) - 3/2, 5/2, 5/3, NC/APB, G1/4



Alternative models - NPT Ports

- 3/2 or 5/2 way function via adapter plates
- Exhaust air recirculation
- Crossover-free switching, switchover function guaranteed even with small cross section air supply
- Rest position in the event of power failure (monostable design)
- Manual override with detent
- Compact design
- Simple design soft seal spool system
- Easily interchangeable solenoid

## TECHNICAL DATA

### Medium:

Compressed air, filtered, lubricated and non-lubricated

### Mounting position:

Optional

### Operating pressure:

2 ... 8 bar

### Flow direction:

Fixed

### Ambient temperature:

Valve: -25°C ... +50°C

Solenoid: See solenoid table

With minus temperatures, use conditioned dry air. If installed in the open protect all connections against the penetration of moisture. Consult our Technical Service for use below +2°C.

### Electrical connection:

Acc. to DIN 175301-803 form A

## MATERIALS

Housing: aluminium anodized

Pilot flange: plastic (PBT)

Seals: NBR (Perbunan)

## 3/2, 5/2 & 5/3 VALVES

Symbol	Port size			Function	Actuation	Flow l/m	kg	Drawing no.	MODELS
	1	3 (5)	2, 4						
	G1/4	G1/8	Flange	NC	Sol/Spring	750	0,25	1	9710000xxxx*****
	G1/4	G1/8	Flange	NC	Sol/Sol	750	0,35	2	9711000xxxx*****
	G1/4	G1/8	Flange	APB	Sol/Sol	500	0,40	3	9712000xxxx*****





xxxx Insert solenoid codes from table on next page.  
 \*\*\*\*\* Insert voltage codes from table on page 3-194.  
 APB = All Ports Blocked.  
 Exterior free of non-ferrous metals.

For further information



www.norgren.com/info/en3-192

## SOLENOID ACTUATORS 3/2, 5/2 & 5/3 valves

	Power consumption		Ex protection category	Protection class	Temperature ambient/fluid °C	Drawing no.	Circuit diagram no.	Solenoid codes
	24 V d.c. (W)	230 V a.c. (VA)						
	1,6	3,5	-	IP 65 (with connector) DIN EN 175301-803 Form A <sup>d)</sup>	-40 ... +50	5	1	3036
	2	-	II3G II3D	EEx nA II T5 IP65 T 95°C with connector DIN EN 175301-803 Form A	-15 ... +50	5	1	3046
	-	4,0	II3G II3D	EEx nA II T5 IP65 T 95°C with connector DIN EN 175301-803 Form A	-15 ... +50	5	8	3047
	2,7	-	II2G	EEx m II T5 Stranded wire, 3 m long	-20 ... +50	6	1	3062 <sup>*3)</sup>
	-	2,1	II2G	EEx m II T5 Stranded wire, 3 m long	-20 ... +50	6	8	3063 <sup>*3)</sup>
	2,7	-	-	IP 66 Connection M12x1 DIN EN 60947-5-2	-10 ... +50	7	8	3071

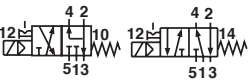
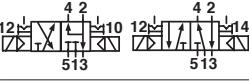
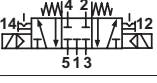
Standard voltages 24 V DC, 230 V AC. Other voltages on request.

For intrinsically safe circuits, protection class EEx ia IIC T6.

<sup>\*3)</sup> Certificate of Conformity PTB No. PTB 03 ATEX 2015X.

<sup>d)</sup> Connector is not included in delivery; Required connector 0570275.

## 3/2, 5/2 & 5/3 VALVES for minimal electrical power, incl. EEx i

Symbol	Port size			Function	Actuation	Flow l/m	kg	Drawing no.	MODELS
	1	3 (5)	2, 4						
	G1/4	G1/8	Flange	NC	Sol/Spring	750	0,25	1	9710002xxxx*****
	G1/4	G1/8	Flange	NC	Sol/Sol	750	0,35	2	9711002xxxx*****
	G1/4	G1/8	Flange	APB	Sol/Sol	500	0,40	3	9712002xxxx*****

xxxx Insert solenoid codes from table on next page.

\*\*\*\*\* Insert voltage codes from table on next page.

APB = All Ports Blocked.

Exterior free of non-ferrous metals.

# HERION 97100 SERIES Indirect solenoid actuated spool valves for single and double acting actuators with NAMUR interface

6 mm orifice (ND) - 3/2, 5/2, 5/3, NC/APB, G1/4

## SOLENOID ACTUATORS 3/2, 5/2 & 5/3 valves for minimal electrical power

	Power consumption		Rated current at		Ex Protection category	Protection class	Temperature ambient/fluid °C	Drawing no.	Circuit diagram no.	Solenoid codes
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (W)	230 V a.c. (VA)						
	1,7	-	-	-	-	IP 65 (with connector) DIN EN 175301-803 Form B <sup>*6)</sup>	-40 ... +50	4	1	3050
	0,7	0,7 <sup>*2)</sup>	-	-	-	IP 65 (with connector) <sup>*6)</sup> DIN EN 175301-803 Form A <sup>*6)</sup>	-40 ... +50	5	1	3034
	2	-	-	-	II3G II3D	EEx nA II T5 IP65 T 95°C with connector	-15 ... +50	5	1	3046
	2,7	-	115	-	II2G	EEx m II T5 Connector with 3 m cable	-20 ... +50	6	1	3062 <sup>*3)</sup>
	-	2,1 <sup>*2)</sup>	-	9 <sup>*2)</sup>	II2G	EEx m II T5 Connector with 3 m cable	-20 ... +50	6	8	3063 <sup>*3)</sup>
	2,7	-	115	-	-	IP 66 Connection M12x1 DIN EN 60947-5-2	-10 ... +50	7	8	3071

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

## For intrinsically safe circuits, protection class EEx ia IIC T6/T4

	Nom. resistance R <sub>N</sub> coil (▲)	Required switching current (mA)	Resistance R <sub>w 50</sub>	Required voltage at terminal R <sub>w 50</sub>	Ambient temperature °C	Fluid temperature max. °C	Drawing no.	Circuit diagram no.	Solenoid codes
	275	37	330	12,3	T6 -40 ... +80 T4 -40 ... +80	T6 +70 T4 +85	8	13	3039 <sup>*4)</sup>

When selecting an intrinsically safe power supply, the permissible maximum values according to the Certificate of Conformity should be taken in account. On the other hand, the low effective inductivity and capacity can be ignored.

<sup>\*2)</sup> Valves can be operated with DC only. For 230V AC application please use 206V DC coil together with rectifier plug 0663303

<sup>\*3)</sup> Certificate of Conformity PTB No. PTB 03 ATEX 2015X.

<sup>\*4)</sup> Certificate of Conformity PTB 03 Atex 2134 PTP 03 IEC 2166, CSA - Certificate No. LR 51090-4, FM approved.

Required connector acc. to DIN EN 17031-801 form A or ISO 4400. Installation acc. to requirements of FM and CSA.

<sup>\*6)</sup> Connector is not included in delivery; required connector for DC: type 0680003 Form B, type 0570275 Form A.

## Voltage codes

Voltage	Code
24 V d.c.	02400
24 V a.c.	02450
230 V a.c.	23050

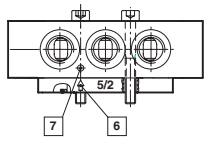
## ACCESSORIES

Silencer	Connectors	Flange plate	Yoke
0014500 (G1/8)*	0570275 Form A 0663303 with rectifier 0680003 Form B	0612790 NAMUR single connection plate 0612791 NAMUR-slot use in combination with 0612790 (Alu)	0540593

\* For indoor use

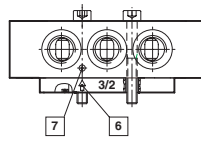
## CONVERSION INSTRUCTIONS OF 5/2 INTO 3/2 WAY FUNCTION

5/2 way function  
(original mode of supply)



6 Arrow  
7 Marker

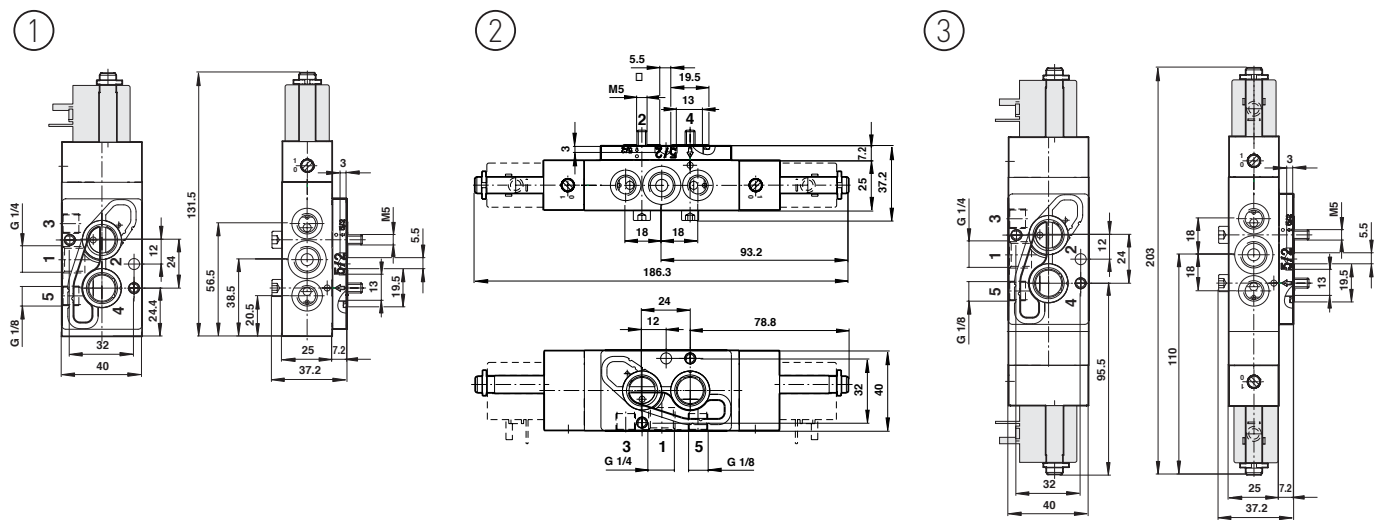
3/2 way function



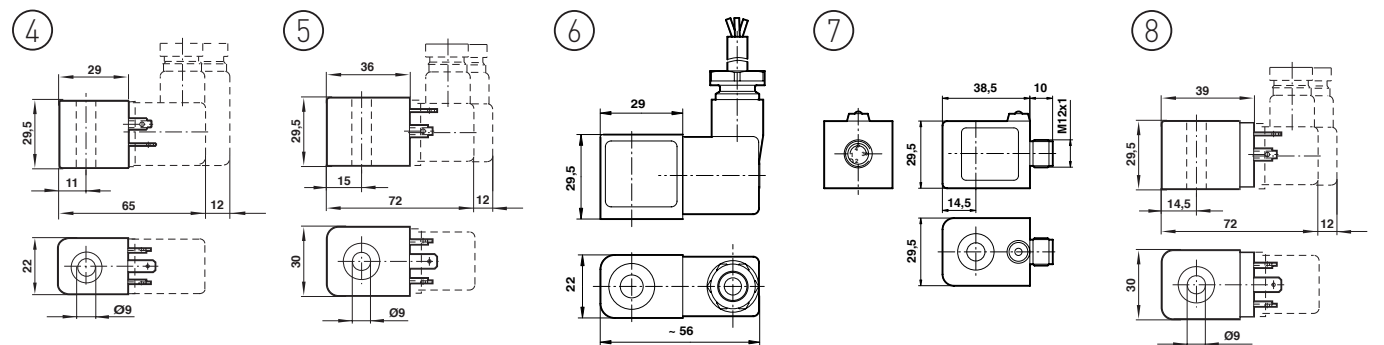
3/2 resp. 5/2 way function can be achieved just by swapping enclosed adaptor plates. Make sure Marker and Arrow do match as shown on above drawing. Original mode of supply: 5/2 function.

## DIMENSIONS

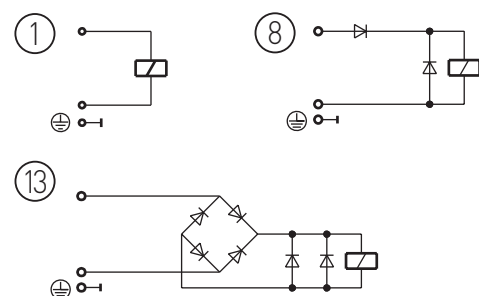
Valve dimensions



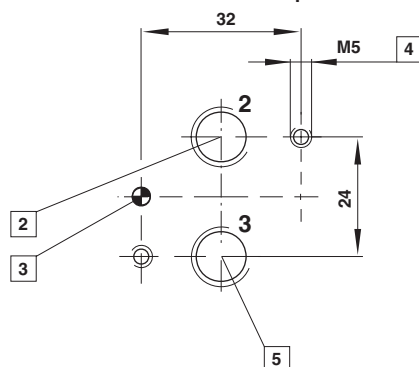
Solenoid dimensions



Circuit diagrams



NAMUR hole pattern



- 2 Port 2 (A)
- 3 Coding stud threaded
- 4 M5 (10 deep)
- 5 Port 3 (R)