

# A

## ISO 15218 - 15 mm Microvalves

- Flow rate max 38 NI/min
- ISO 15218 interface
- 2/2-3/2 versions - normally open (NO) and normally closed (NC)
- Interchangeable coil - 90° orientation
- Single and multiple sub-bases - single and multipolar electric connection

ATEX version available upon request

CE II 3 GD c nA II T5-10°C ≤ Ta ≤ 45°C



### TECHNICAL CHARACTERISTICS

Ambient temperature	-5 ÷ +50 °C	
Fluid temperature	Max +50 °C	
Fluid	10 µm filtered air, with or without lubrication	
Commutation system	poppet	
Ways/Positions	<b>2/2 NC, 3/2 NC, 2/2 NO, 3/2 NO</b>	
Pressure	Max 9 bar	
Control	electric	
Return	mechanical spring	
Connections	ISO 15218 interface	
Nominal Ø	1,2	1,5
Nominal flow rate	26	38
Max frequency	2700 cycles/min	

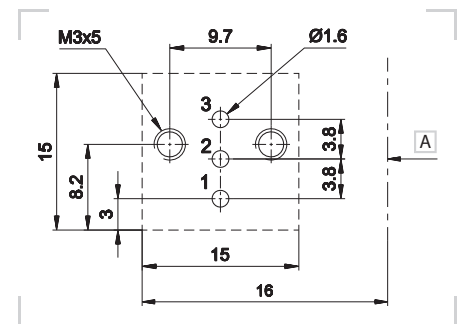
### CONSTRUCTIVE CHARACTERISTICS

Valve body	technopolymer (aluminium external cover)
Seals	nitrile rubber
Components	stainless steel, brass

### ELECTRIC CHARACTERISTICS

Coil	U05 DD series	
Power consumption	2 W DC / 2,3 VA AC (Ø 1,2) - 2,5 W DC / 3,5 VA AC (Ø 1,5)	
Electrical connection	15 mm connector - Molex bipolar connector or loose cables	
Voltage	24 V DC - 12 V DC - 24 V AC - 110 V AC - 230 V AC	
Manual override	recessed button - 1 position (other manual overrides upon request)	
Protection degree with connector	IP65	

### ISO 15218 Substructure



A Pitch

#### 3/2 NC

- 1 = Supply port
- 2 = Use
- 3 = Exhaust

#### 3/2 NO

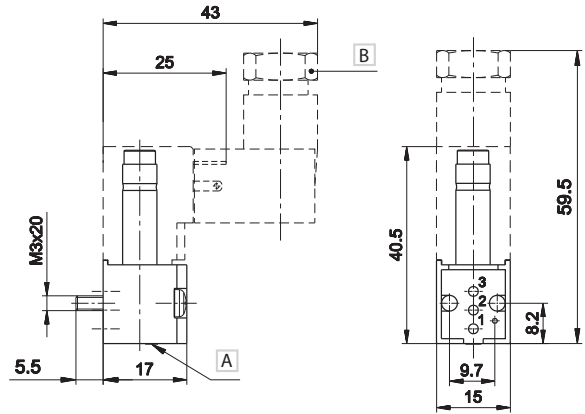
- 1 = Exhaust
- 2 = Use
- 3 = Supply port

#### 2/2 NO

- 1 = Exhaust
- 3 = Supply port

Drilling jig to assemble the valve on a smooth surface with a sealing plate in between. Part no. A-299-11.

### 15 mm Microvalves



A Manual override  
 B Possible rotation by 180°

<b>3/2 NC</b>	<b>3/2 NO</b>	<b>2/2 NO</b>
1 = Supply port	1 = Exhaust	1 = Exhaust
2 = Use	2 = Use	3 = Supply port
3 = Exhaust	3 = Supply port	

#### Microvalves Ø 1,2 for direct current coils 2 W

Symbol	Pressure bar	Ø mm	Flow rate Nl/min.	Current	Response Time (ms)		Weight (b) Kg	Part no.
					En.	De-en.		
	0÷9	1,2	26	DC	11	11	0,018 (0,037)	<b>A-141N</b>
	0÷9	1,2	26	DC	11	11	0,018 (0,037)	<b>A-161N</b>
	0÷9	1,2	26	DC	11	11	0,018 (0,037)	<b>A-101N</b>
	0÷9	1,2	26	DC	11	11	0,018 (0,037)	<b>A-121N</b>

Suggested coils	
<b>DD-051</b> 24 V DC - 2 W	Coil with Faston
<b>DD-051L030</b> 24 V DC - 2 W	Coil with flying cables

Upon request 12 V DC

#### Microvalves Ø 1,5 for direct current coils 2,5 W

Symbol	Pressure bar	Ø mm	Flow rate Nl/min.	Current	Response Time (ms)		Weight (b) Kg	Part no.
					En.	De-en.		
	0÷8	1,5	38	DC	11	11	0,018 (0,037)	<b>A-142N</b>
	0÷8	1,5	38	DC	11	11	0,018 (0,037)	<b>A-162N</b>
	0÷8	1,5	38	DC	11	11	0,018 (0,037)	<b>A-102N</b>
	0÷8	1,5	38	DC	11	11	0,018 (0,037)	<b>A-122N</b>

Suggested coils	
<b>DD-052</b> 24 V DC - 2,5 W	Coil with Faston
<b>DD-052L030</b> 24 V DC - 2,5 W	Coil with flying cables

Upon request 12 V DC

#### Microvalves Ø 1,2 for direct or alternate current

Symbol	Pressure bar	Ø mm	Flow rate Nl/min.	Current	Response Time (ms)		Weight (b) Kg	Part no.
					En.	De-en.		
	0÷9	1,2	26	DC/AC	11	11	0,018 (0,037)	<b>A-151N</b>
	0÷9	1,2	26	DC/AC	11	11	0,018 (0,037)	<b>A-171N</b>
	0÷9	1,2	26	DC/AC	11	11	0,018 (0,037)	<b>A-111N</b>
	0÷9	1,2	26	DC/AC	11	11	0,018 (0,037)	<b>A-131N</b>

Suggested coils	
<b>DD-040</b> 24 V AC - 50/60 Hz - 2,3 VA	Coil with Faston
<b>DD-041</b> 12 V DC - 2 W	
<b>DD-050</b> 48 V AC - 50/60 Hz - 2,3 VA	
<b>DD-051</b> 24 V DC - 2 W	
<b>DD-070</b> 230 V AC - 50/60 Hz - 2,3 VA	
<b>DD-051L030</b> 24 V DC - 2 W	Coil with flying cables

Upon request 12 V DC

(b) = the weight in brackets refers to coil with faston  
 For technical data of coils see "Accessories>Coils"  
**Microvalves are supplied without coil and connector**

Microvalves Ø 1,5 for direct or alternate current

	Symbol	Pressure bar	Ø mm	Flow rate Nl/min.	Current	Response Time (ms)		Weight (b) Kg	Part no.
						En.	De-en.		
2/2 NC		0÷8	1,5	38	DC/AC	11	11	0,018 (0,037)	<b>A-152N</b>
3/2 NC		0÷8	1,5	38	DC/AC	11	11	0,018 (0,037)	<b>A-112N</b>

Suggested coils	
<b>DD-011</b> 24 V AC - 50/60 Hz - 3,5 VA	Coil with Faston
<b>DD-013</b> 230 V AC - 50/60 Hz - 3,5 VA	
<b>DD-040</b> 24 V AC - 50/60 Hz - 2,3 VA	
<b>DD-042</b> 12 V DC - 2,5 W	
<b>DD-052</b> 24 V DC - 2,5 W	
<b>DD-060</b> 48 V AC - 50/60 Hz - 3,5 VA	Coil with flying cables
<b>DD-052L030</b> 24 V DC - 2,5 W	

Upon request 12 V DC

>> Coils



U5 flying cables  
weight: 0,019 Kg

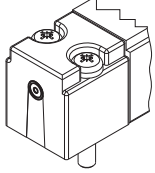
**DD-051L030**  
**DD-052L030**

U05 15 mm  
weight: 0,019 Kg

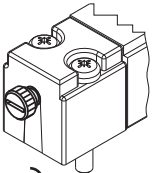
**DD-011** **DD-050**  
**DD-013** **DD-051**  
**DD-040** **DD-052**  
**DD-041** **DD-060**  
**DD-042** **DD-070**

Standard manual override

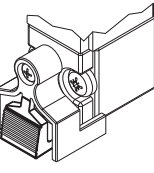
Operation	Notes	Symbol
1 = with button with tool, 1 position (standard)	metallic	→
2 = with button, 1-2 positions (upon request)	technopolymer red colour	⊖
3 = with front button, 1 position (upon request)	technopolymer red colour	→
4 = with button, 1 position (upon request)	metallic	→



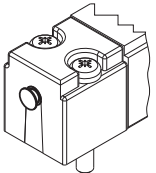
1 →



2 →



3 →



4 →

(b) = the weight in brackets refers to coil with faston

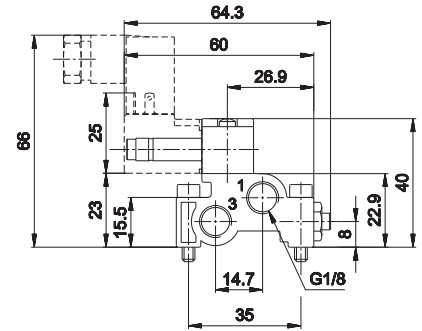
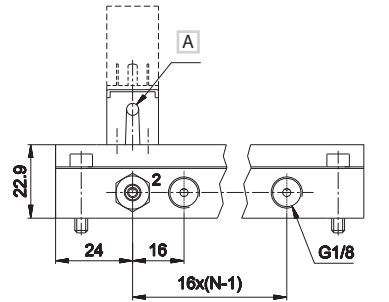
For technical data of coils see "Accessories>Coils"

Microvalves are supplied without coil and connector

### Sub-base for external electric connection

Sub-base in extruded anodized aluminium with conveyed supplies and exhausts for assembling NC or NO valves. If NC and NO valves are assembled on just one base, it is necessary to insert the inverter part A-350 for NO valves.

- A - 326A - \_\_<sup>(b)</sup> G1/8 threaded connections (standard)
- A - 326B - \_\_<sup>(b)</sup> M5 threaded connections (upon request)
- A - 326D - \_\_<sup>(b)</sup> push-in connections tube 4 (upon request)



**A** Manual override

N = Number of valve positions  
(b) = Number of positions

3/2 NC

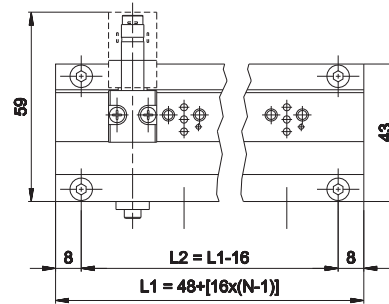
- 1 = Supply port
- 2 = Use
- 3 = Exhaust

3/2 NO

- 1 = Exhaust
- 2 = Use
- 3 = Supply port

2/2 NO

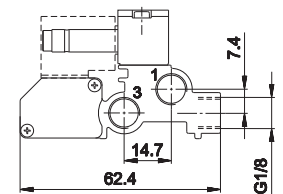
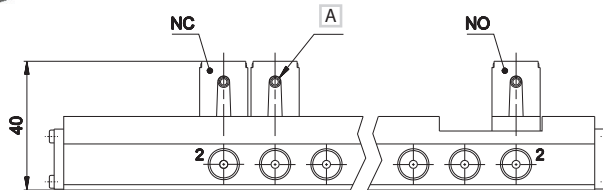
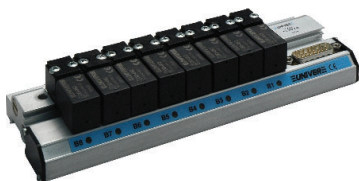
- 1 = Exhaust
- 3 = Supply port



3

### Sub-base for integrated electric connection

Sub-base in extruded anodized aluminium up to Max 13 stations with sub-D connector 15 pin (upon request up to 23 with connector 25 pin) and G1/8 threaded standard connections, with conveyed supplies and exhausts for assembling NC or NO valves, with integrated coil connection and optical indication of the valve working status. If both NO and NC valves are assembled on just one sub-base, NC valves are always mounted on the connector side and afterwards the NO valves. The invert plate (part no. A-350) must be installed for NO valves.



**A** Manual override

N = Number of valve positions

3/2 NC

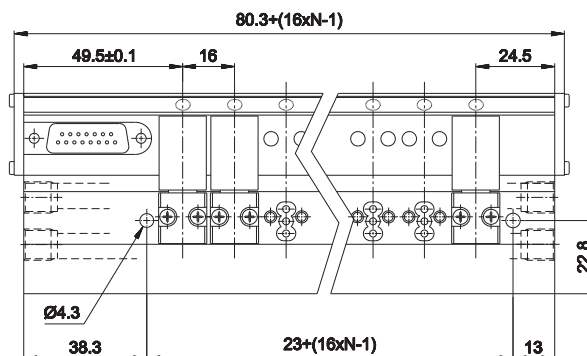
- 1 = Supply port
- 2 = Use
- 3 = Exhaust

3/2 NO

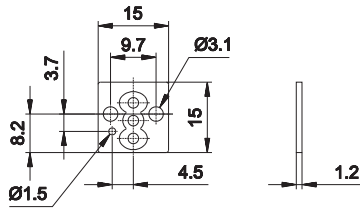
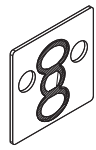
- 1 = Exhaust
- 2 = Use
- 3 = Supply port

2/2 NO

- 1 = Exhaust
- 3 = Supply port



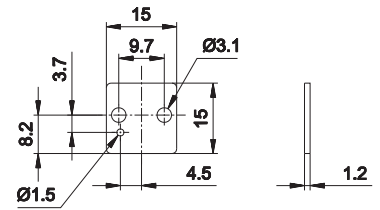
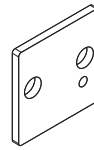
**A-299-11**



**Sealing plate**

It blocks the seal in place when the valve is mounted on a smooth surface without a seal housing  
 material: aluminium  
 weight: 0,003 Kg

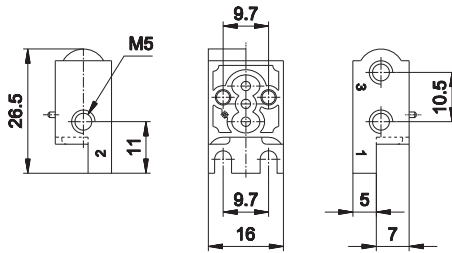
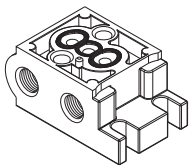
**A-301**



**Blank plate**

Unused valve stations must be closed with the blank plate  
 material: aluminium  
 weight: 0,002 Kg

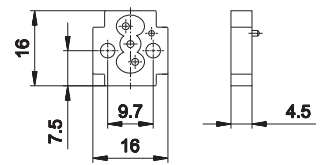
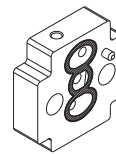
**A-305**



**Single base**

material: zamak  
 connection: M5  
 weight: 0,012 Kg

**A-350**



**Inverter plate**

NO and NC valves can be mounted on a single block inserting this device between the NO valve and the sub-base.  
 If all installed valves are NO versions, just invert air supply without using the inverter plate.  
 material: plastic  
 weight: 0,002 Kg