SERIES A - ISO 15218 - 15 MM MICROVALVES

Reference Standard
ATEX 2014/34/UE

Pressures
Max 9 bar (0.9 MPa)

Temperature
- 5 °C
+ 50 °C

CARATTERISTICHE TECNICHE

Nominal Ø	ISO 15218 interface
Versions	2/2-3/2 versions - normally open (NO) and normally closed (NC)
Coil	Interchangeable coil - 90° orientation
Sub-bases	Single and multiple - single and multipolar electric connection
Fluid	10 µm filtered air, with or without lubrication
Commutation system	poppet
Control	electric
Return	mechanical spring
Nominal Ø	1,2 1,5
Nominal flow rate	26 38
Max frequency	2700 cycles/min

CE Ex II 3GD c T5 -10°C ≤ Ta ≤ 45°C

90°x90° adjustable coil

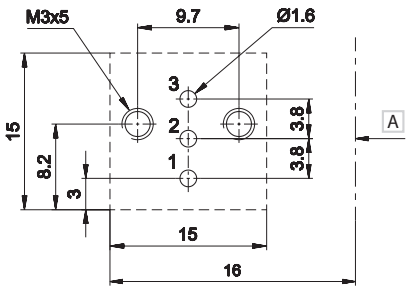
CONSTRUCTIVE CHARACTERISTICS

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
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



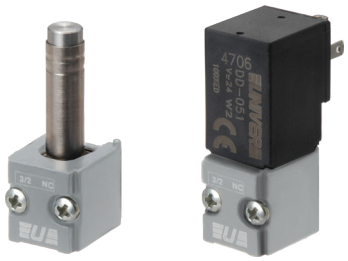
A - Manual override

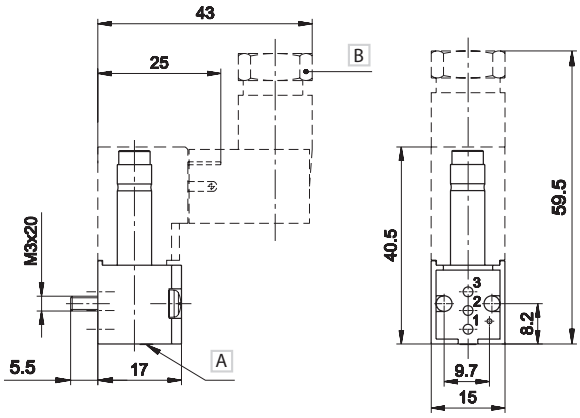
3/2 NC	
1 = Supply port	
2 = Use	
3 = Exhaust	

3/2 NO	2/2 NO
1 = Exhaust	1 = Exhaust
2 = Use	2 = Supply port
3 = Supply port	

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

ISO 15218 Microvalvole



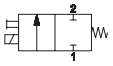
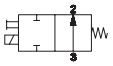
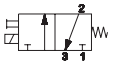
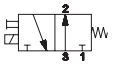


A - Manual override
B - Possible rotation by 180°

3/2 NC
1 = Supply port
2 = Use
3 = Exhaust

3/2 NO	2/2 NO
1 = Exhaust	1 = Exhaust
2 = Use	2 = Supply port
3 = Supply port	

Microvalves Ø 1,2 for direct current coils 2 W

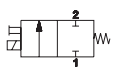
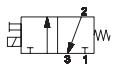
	Code	Function	Pressure bar	Ø mm	Flow rate Nl/min.	Current	Response Time (ms) En.	Response Time (ms) De-en.	Weight (b) kg
	A-141N	2/2 NC	0÷9	1,2	26	DC	11	11	0,018 (0,037)
	A-161N	2/2 NO	0÷9	1,2	26	DC	11	11	0,018 (0,037)
	A-101N	3/2 NC	0÷9	1,2	26	DC	11	11	0,018 (0,037)
	A-121N	3/2 NO	0÷9	1,2	26	DC	11	11	0,018 (0,037)

Suggested coils

DD-051 24 V DC - 2 W	Coil with Faston
DD-051L030 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

	Code	Function	Pressure bar	Ø mm	Flow rate Nl/min.	Current	Response Time (ms) En.	Response Time (ms) De-en.	Weight (b) kg
	A-142N	2/2 NC	0÷8	1,5	38	DC	11	11	0,018 (0,037)
	A-102N	3/2 NC	0÷8	1,5	38	DC	11	11	0,018 (0,037)

Suggested coils

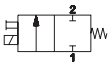
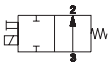
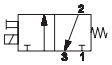
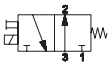
DD-052 24 V DC - 2,5 W **DD-042** 12 V DC - 2,5 W	Coil with Faston
DD-052L030 24 V DC - 2.5 W	Coil with flying cables

Upon request 12 V DC

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

The microvalves are supplied without coil and connector.

Microvalves Ø 1,2 for direct or alternated current

	Code	Function	Pressure bar	Ø mm	Flow rate Nl/min.	Current	Response Time (ms) En.	Response Time (ms) De-en.	Weight [b] kg
	A-151N	2/2 NC	0÷9	1,2	26	DC/AC	11	11	0,018 (0,037)
	A-171N	2/2 NO	0÷9	1,2	26	DC/AC	11	11	0,018 (0,037)
	A-111N	3/2 NC	0÷9	1,2	26	DC/AC	11	11	0,018 (0,037)
	A-131N	3/2 NO	0÷9	1,2	26	DC/AC	11	11	0,018 (0,037)

Suggested coils

DD-040
24 V AC - 50/60 Hz -2,3 VA
DD-041
12 V DC - 2 W
DD-050
48 V AC - 50/60 Hz -2,3 VA
DD-051
24 V DC - 2 W
DD-070
230 V AC - 50/60 Hz -2,3 VA

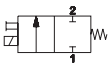
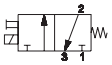
Coil with Faston

DD-051L030
24 V DC - 2W

Coil with flying cables

Upon request 12 V DC

Microvalves Ø 1,5 for direct or alternate current

	Code	Function	Pressure bar	Ø mm	Flow rate Nl/min.	Current	Response Time (ms) En.	Response Time (ms) De-en.	Weight [b] kg
	A-152N	2/2 NC	0÷8	1,5	38	DC/AC	11	11	0,018 (0,037)
	A-112N	3/2 NC	0÷8	1,5	38	DC/AC	11	11	0,018 (0,037)

Suggested coils

DD-013
230 V AC - 50/60 Hz - 3,5 VA
DD-040
24 V AC - 50/60 Hz - 2,3 VA
DD-042
12 V DC - 2,5 W
DD-052
24 V DC - 2,5 W
DD-060
110 VAC - 50/60 Hz - 2,3 VA

Coil with Faston

DD-052L030
24 V DC - 2.5 W

Coil with flying cables

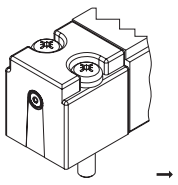
Upon request 12 V DC

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

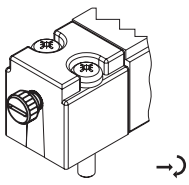
The microvalves are supplied without coil and connector.

Standard manual override

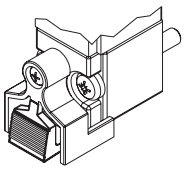
Operation	Notes	Symbol
1 = with button with tool, 1 position (standard)	metallic	→
2 = with button, 1-2 positions (upon request)	technopolymer red colour	⊖
3 = with front button, 1 position (upon request)	technopolymer red colour	→
4 = with button, 1 position (upon request)	metallic	→



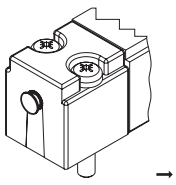
1



2



3

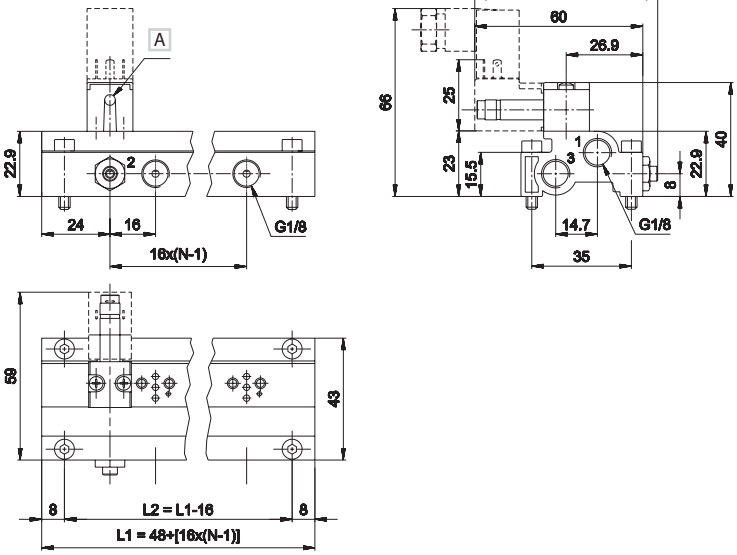


4

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



A - Manual override

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

3/2 NC

1 = Supply port

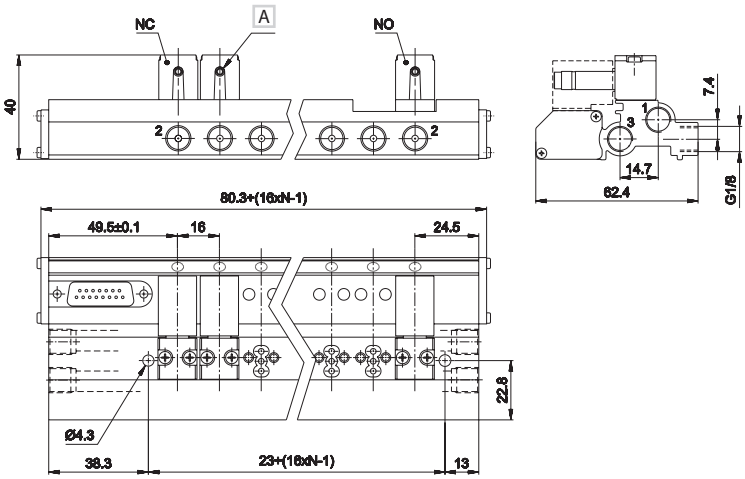
2 = Use

3 = Exhaust

3/2 NO	2/2 NO
1 = Exhaust	1 = Exhaust
2 = Use	2 = Supply port
3 = Supply port	

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

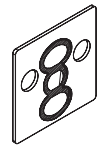
3/2 NO	2/2 NO
1 = Exhaust	1 = Exhaust
2 = Use	2 = Supply port
3 = Supply port	

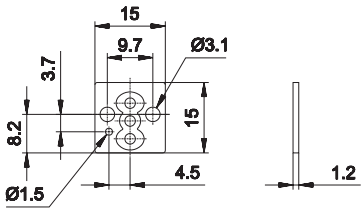
(b) = the weight in brackets refers to coil with faston

The microvalves are supplied without coil and connector.

A ISO 15218 - 15 mm Microvalves

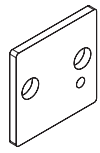
A-299-11

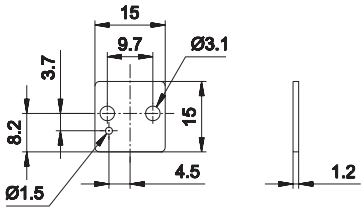




Sealing plate
It blocks the seal in place when the valve is mounted on a smooth surface without a seal housing
material: aluminium
weight: 0,003 Kg

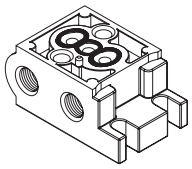
A-301

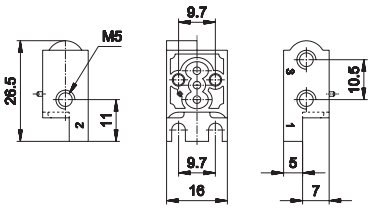




Blank plate
Unused valve stations must be closed with the blank plate
material: aluminium
weight: 0,002 Kg

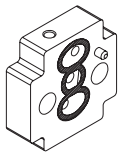
A-305

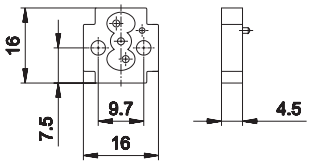




Single base
material: zamak
connection: M5
weight: 0,012 Kg

A-350



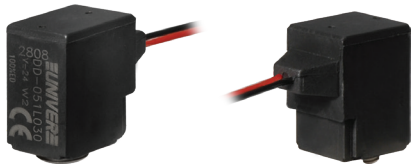


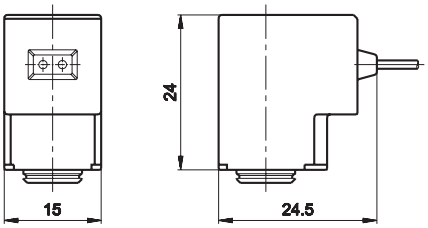
Inverter plate
NO and NC valves can be mounted on a single block inserting this device between the NO valve and the sub-base.
If all installed valves are NO versions, just invert air supply without using the inverter plate.
material: plastic
weight: 0,002 Kg

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

The microvalves are supplied without coil and connector.

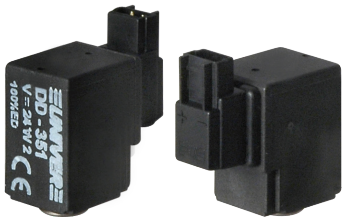
U05 coil with loose cables (length 300 mm)

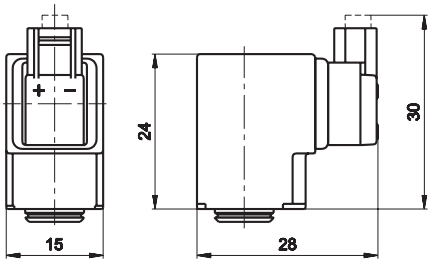




Code	Duty cycle ED(a) %	Power consumption W		Tension tolerance %	Rated voltage	Peso Kg
		Hold	Inrush			
DD-051L030	100	2	2	±10	24 V DC	0,019
DD-052L030	100	2,5	2,5	±10	24 V DC	0,019

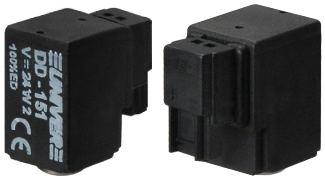
U05 coil with integrated 90° upward connector

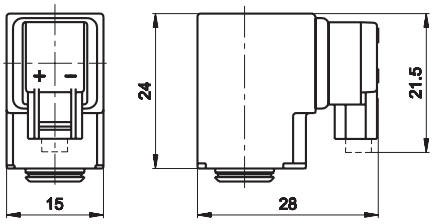




Code	Connector	Duty cycle ED(a) %	Power consumption W		Tension tolerance %	Rated voltage	Weight Kg
			Hold	Inrush			
DD-351	D-500... D-530... D-535...	100	2	2	±10	24 V DC	0,019

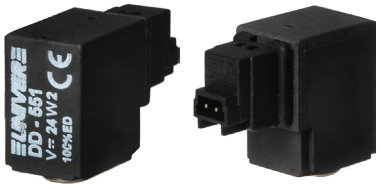
U05 coil with integrated 90° downward connector

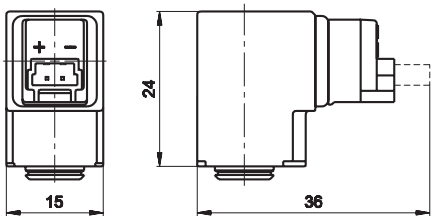




Code	Connector	Duty cycle ED(a) %	Power consumption W		Tension tolerance %	Rated voltage	Weight Kg
			Hold	Inrush			
DD-151	D-500... D-530... D-535...	100	2	2	±10	24 V DC	0,019

U05 coil with in-line connector

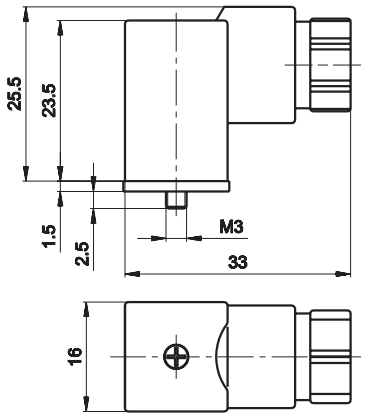




Code	Connector	Duty cycle ED(a) %	Power consumption W		Tension tolerance %	Rated voltage	Weight Kg
			Hold	Inrush			
DD-551	D-500... D-530... D-535...	100	2	2	±10	24 V DC	0,019

Upon request: version with LED and V DC version

Connector 15 mm for Coil U05/U06



Coil series U05/U06

AM-5109 Protection according to IP65. PG9 cable connection. 180° rotation on the coil.