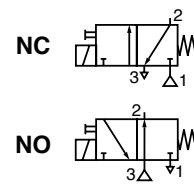




MICRO SOLENOID VALVES

direct operated
pad-mounting body
for subbase M3/M5



3/2
Series
188
Type
Micro 10

GENERAL

Fluid	Air or inert gas, non-lubricated, filtered at 25 µm
Operating pressure	7 bar max.
Ambient temperature	+5°C to +50°C
Flow (Qv at 6 bar)	See "SPECIFICATIONS"
Manual operator	Impulse-type (without manual operator on request)
Switching time	10 ms (<10 ms on request)

CONSTRUCTION

Body	PA (polyamide) MXD6
Internal parts	Stainless steel, nickel-plated steel, synthetic material, aluminium
Seals	NBR (nitrile), FPM (fluoroelastomer) on request



ELECTRICAL CHARACTERISTICS

voltage (other voltages on request)	consumption	insulation class	degree of protection	electrical connection
24V = 12V = 5V =	1W - 1,3W	F	IP 40	connector with two 0.5 mm ² lead wires + built-in LED and electrical protection or cable ends, 0,5 m long
+10%, -15%				

The solenoid valves are designed for continuous operation within the maximum ambient temperature limits.

SPECIFICATIONS

symbol	orifice size (mm)		flow		operating pressure (bar)		consumption (W)	type of electrical connection (*)	catalogue number
	1 → 2	2 → 3	at 6 bar l/min (ANR)	coeff. Kv	min.	max.			
NC 	0,5	0,7	8	0,12	0	8	1,3	1	18801003
								2	18801076
								3	18801074
								4	18801078
								5	18801072
	0,8	0,8	10	0,15	0	4	1,3	1	18801081
								2	18801082
								3	18801083
								4	18801084
1,0	1,0	12	0,18	0	2,5	1,3	5	18801085	
							1	18801086	
							2	18801087	
							3	18801088	
							4	18801089	
NO 	0,5	0,5	8	0,12	0	6	1,3	1	18801063
								2	18801077
								3	18801075
								4	18801079
								5	18801073
	0,8	0,8	10	0,15	0	3	1,3	1	18801091
								2	18801092
								3	18801093
								4	18801094
	1,0	1,0	12	0,18	0	1,5	1,3	5	18801095
								1	18801096
								2	18801097
								3	18801098
								4	18801099
								5	18801100

(*) Type 1,2,3, 4 with LED and electrical protection
1 = horizontal, width 5,08 mm
2 = vertical, width 5,08 mm

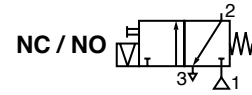
3 = horizontal, width 2,54 mm
4 = vertical, width 2,54 mm
5 = cable ends 0,5 m long, 0,25 mm²

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MICRO SOLENOID VALVES

direct operated, with latching coil
pad-mounting body
for subbase M3/M5



3/2
Series
188
Type
Micro 10

GENERAL

Fluid Air or inert gas, non-lubricated, filtered at 25 µm
Operating pressure 8 bar max.
Ambient temperature +5°C to +50°C
Flow (Qv at 6 bar) See "SPECIFICATIONS"
Manual operator Impulse-type (without manual operator on request)
Switching time 10 ms (<10 ms on request)

CONSTRUCTION

Body PA (polyamide) MXD6
Internal parts Stainless steel, nickel-plated steel, synthetic material, aluminium
Seals NBR (nitrile), FPM (fluoroelastomer) on request



ELECTRICAL CHARACTERISTICS

voltage (other voltages on request)	consumption	insulation class	degree of protection	electrical connection
24V = 12 V = { (+10%, -15%) 5 V =	1W - 1,3W	F	IP 40	connector with two 0.5 mm ² lead wires + built-in LED and electrical protection or cable ends, 0,5 m long

The solenoid valves are designed for continuous operation within the maximum ambient temperature limits.

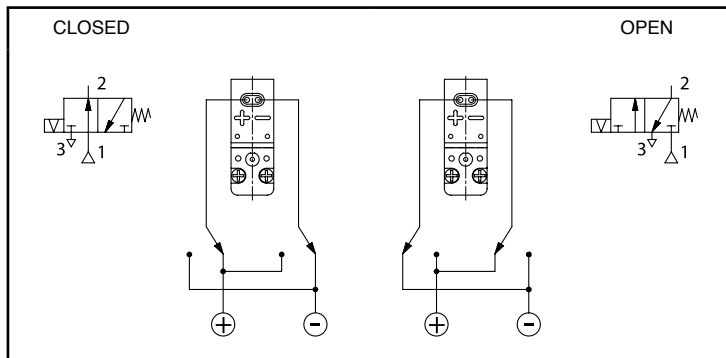
SPECIFICATIONS

symbol	orifice size (mm)		flow		operating pressure (bar)		consumption (W)	type of electrical connection (*)	catalogue number
	1 → 2	2 → 3	at 6 bar l/min (ANR)	coeff. Kv	min.	max.			
	0,5	0,7	8	0,12	0	7	1,3	1	18801101
								2	18801102
								3	18801103
								4	18801104
								5	18801105
	0,8	0,8	10	0,15	0	3	1,3	1	18801106
								2	18801107
								3	18801108
								4	18801109
								5	18801110
	1,0	1,0	12	0,18	0	1	1,3	1	18801111
								2	18801112
								3	18801113
								4	18801114
								5	18801115

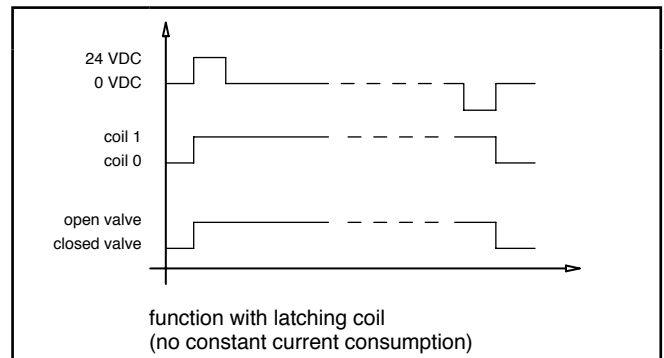
(*) type 1, 2, 3, 4 with LED and electrical protection
 1 = horizontal, width 5,08 mm
 2 = vertical, width 5,08 mm

3 = horizontal, width 2,54 mm
 4 = vertical, width 2,54 mm
 5 = cable ends, 0,5 m long, 0,25 mm²

WIRING DIAGRAM



FUNCTIONAL DIAGRAM

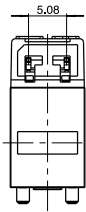
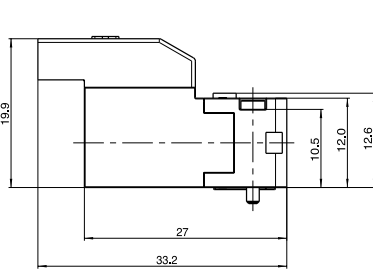


DIMENSIONS (mm), WEIGHT (kg)

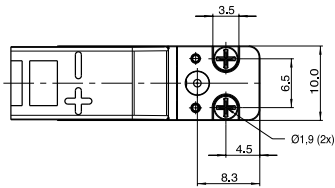


weight
0,0095

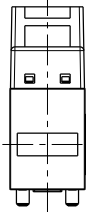
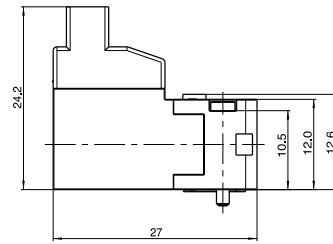
type 1



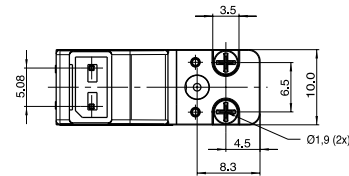
Scale 1



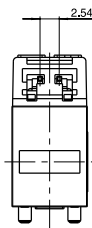
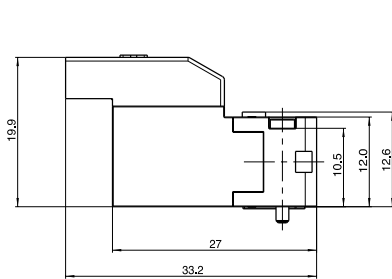
type 2



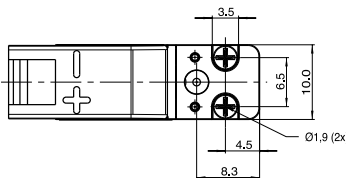
Scale 1



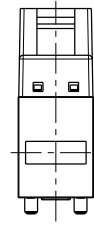
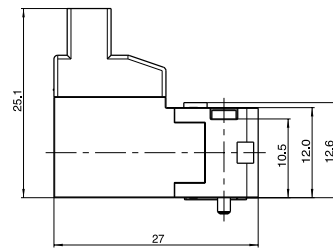
type 3



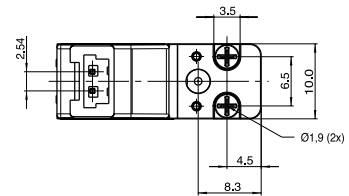
Scale 1



type 4



Scale 1



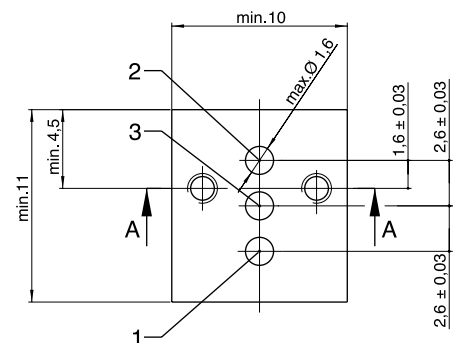
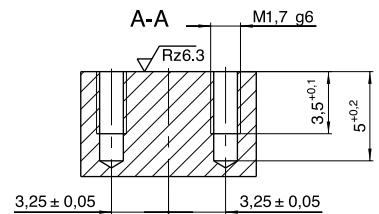
flange facing

NO
3 = Pressure
2 = Outlet
1 = Exhaust

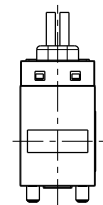
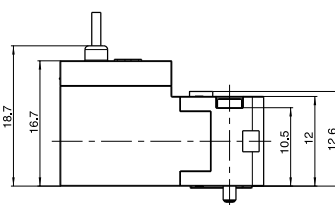
NC
1 = Pressure
2 = Outlet
3 = Exhaust

Use in vacuum (NO)
3 = Vacuum pump
2 = Outlet
1 = Atmosphere

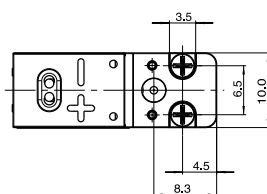
Use in vacuum (NC)
1 = Vacuum pump
2 = Outlet
3 = Atmosphere



type 5



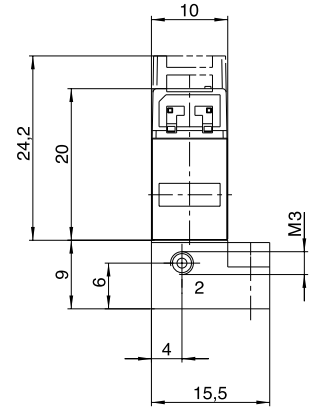
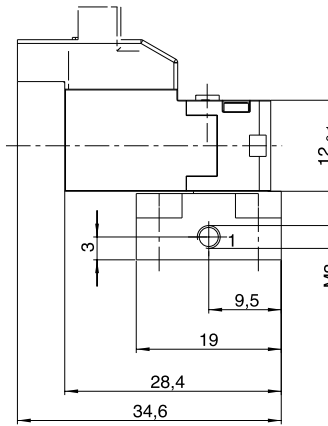
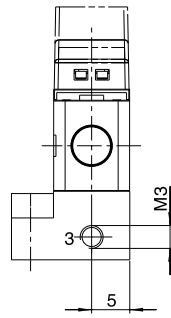
Scale 1



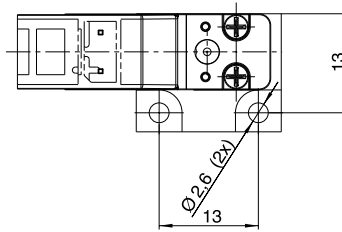
DIMENSIONS (mm), WEIGHT (kg)

solenoid valve mounted on **single subbase**

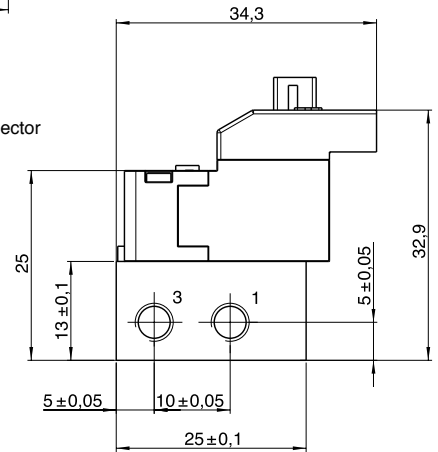
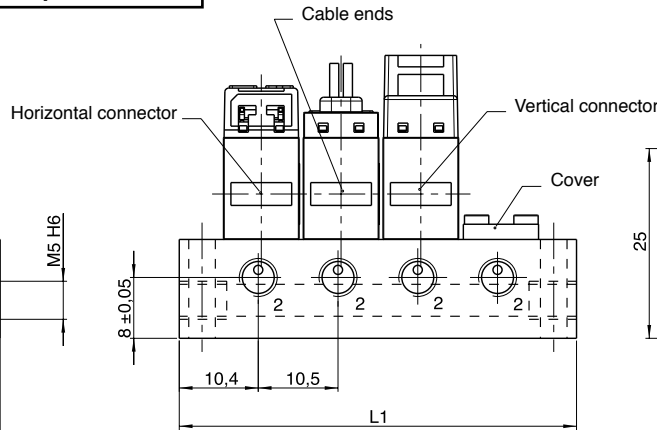
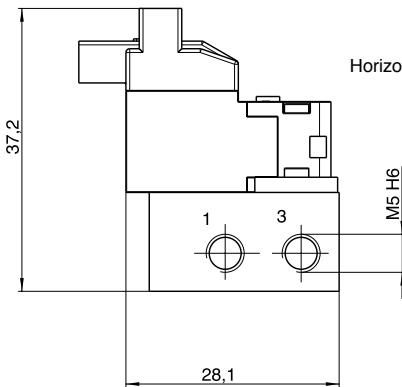
number of valves	subbase catalogue number*	weight
1	35300101	0,015



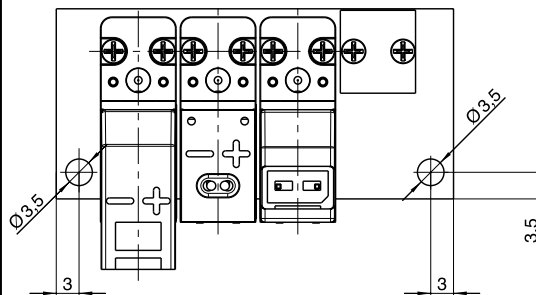
Scale 1



solenoid valve mounted on **multiple subbase**



number of valves	subbase catalogue number*	length		weight
		L1	L2	
2	35300102	33,5	27,5	0,051
3	35300103	44	38	0,069
4	35300104	54,5	48,5	0,086
5	35300105	65	59	0,104
6	35300106	75,5	69,5	0,122
7	35300107	86	80	0,139
8	35300108	96,5	90,5	0,156
9	35300109	107	101	0,175
10	35300110	117,5	111,5	0,193



Scale 1

A : Blanking plate, **cat. no. 88135305**

* The connectors must be ordered **separately**, please indicate the quantity and one of the following codes:

Connector, 2 wires

Distance between contacts 5,08 mm - Length 0,5 m - **cat. no.: 88118801**

- Length 1,5 m - **cat. no.: 88118802**

- Length 3 m - **cat. no.: 88118803**

Distance between contacts 2,54 mm - Length 0,5 m - **cat. no.: 88118806**

- Length 1,5 m - **cat. no.: 88118807**

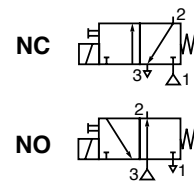
- Length 3 m - **cat. no.: 88118808**





MICRO SOLENOID VALVES

direct operated, **Large Flow**
pad-mounting body
for subbase M5



3/2
Series
188
Type
Micro 10

GENERAL

Fluid	Air or inert gas, non-lubricated, filtered at 25 µm
Operating pressure	10 bar max.
Ambient temperature	+5°C to +50°C
Flow (Qv at 6 bar)	See «SPECIFICATIONS»
Switching time	10 ms

CONSTRUCTION

Body	PBT (polybutylene terephthalate)
Internal parts	Stainless steel synthetic material
Seals	FPM (fluoroelastomer)



ELECTRICAL CHARACTERISTICS

voltage ± 10 % (other voltages on request)	power ratings ¹⁾		insulation class	degree of protection	electrical connection
	inrush	holding			
24V =	3,2 W	1,3 W	F	IP40	X1, X2, X3, X4, X5 *see Electrical Connection Type
12 V =					

The solenoid valves are designed for continuous operation within the maximum ambient temperature limits.
¹⁾ The valves are provided with power save electronics and LED which switch to holding power after 100 msec.

*Electrical Connection Type

X1 = type 1, horizontal, distance between contacts 5,08 mm
 X2 = type 2, vertical, distance between contacts 5,08 mm
 X3 = type 3, horizontal, distance between contacts 2,54 mm
 X4 = type 4, vertical, distance between contacts 2,54 mm
 X5 = type 5, two leads 0,5 m long, 0,25 mm²
 Type 1,2,3,4,5 with LED, protection and power save electronics.

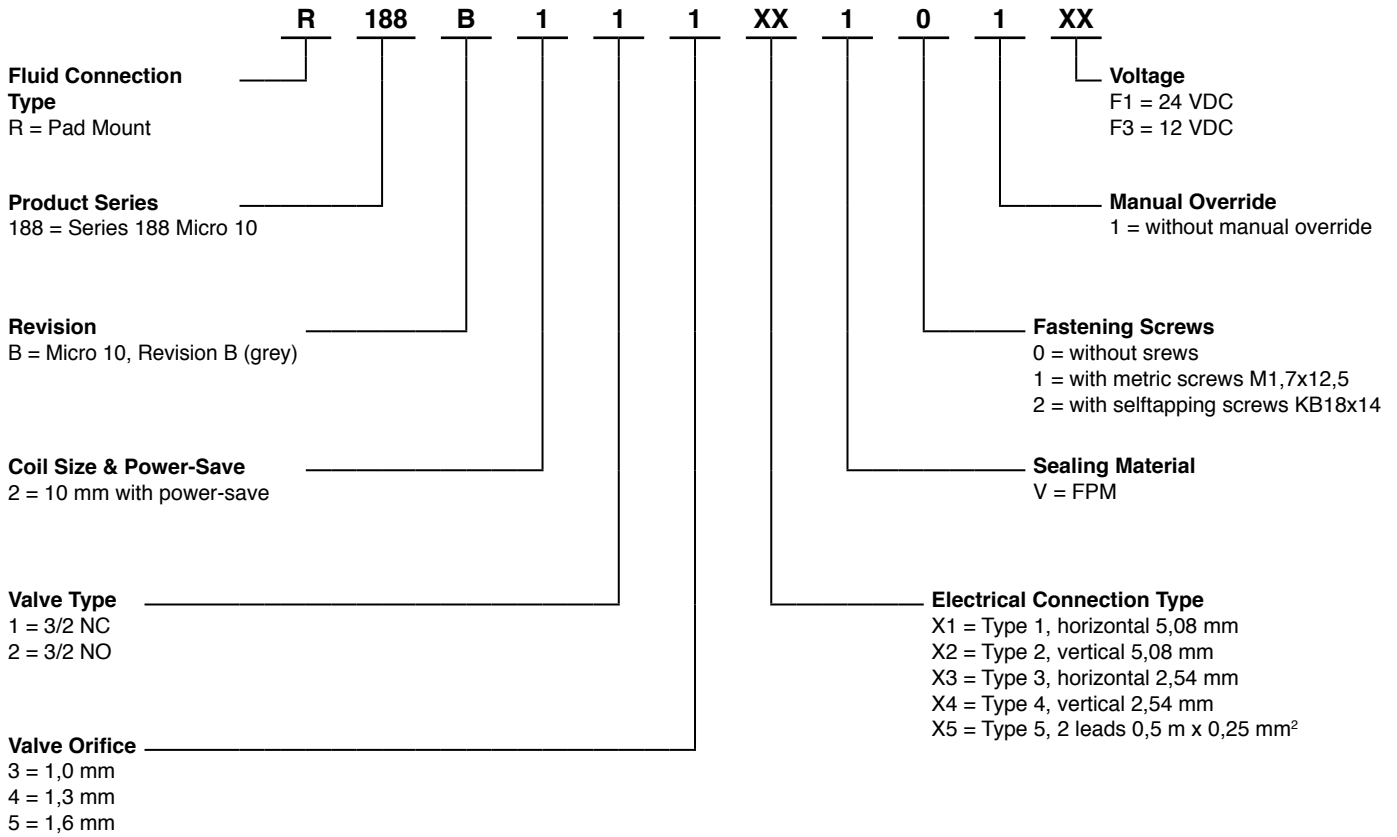
SPECIFICATIONS

symbol	orifice size (mm)		flow		operating pressure (bar)		consumption (W)	catalogue number
	1 → 2	2 → 3	at 6 bar l/min (ANR)	coefficient Kv m ³ /h	min.	max.		
	1,0	1,0	13	0,012	0	10	1,3	R188B213XXV11XX
	1,3	1,3	29	0,027	0	6	1,3	R188B214XXV11XX
	1,6	1,6	42	0,039	0	3,5	1,3	R188B215XXV11XX
	1,0	1,0	13	0,012	0	8	1,3	R188B223XXV11XX
	1,3	1,3	29	0,027	0	4	1,3	R188B224XXV11XX
	1,6	1,6	42	0,039	0	1,5	1,3	R188B225XXV11XX


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ORDERING

15-DIGIT PRODUCT CODE



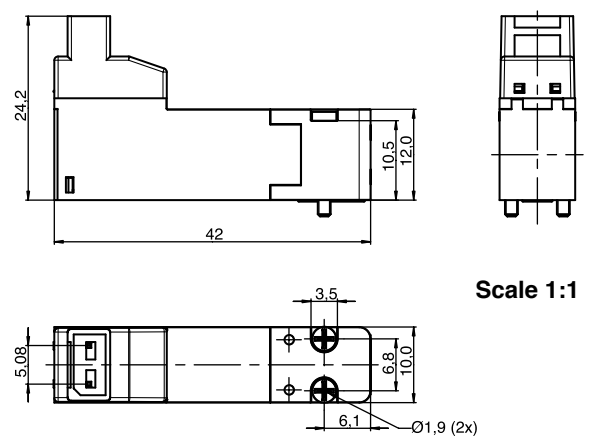
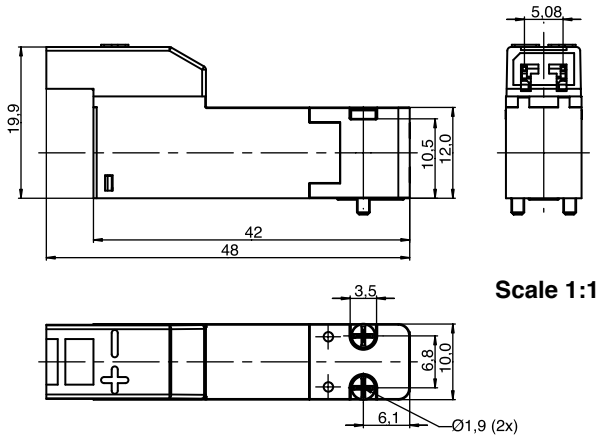
ORDERING EXAMPLE: R188B213X1V11F1 = pad mount, series 188, Micro 10 Revision B (grey), with power-save, 3/2 NC, orifice 1,0 mm, Type 1, FPM, M 1,7 x 12,5, without manual override, 24 VDC

DIMENSIONS (mm), WEIGHT (kg) 

weight
0,0017

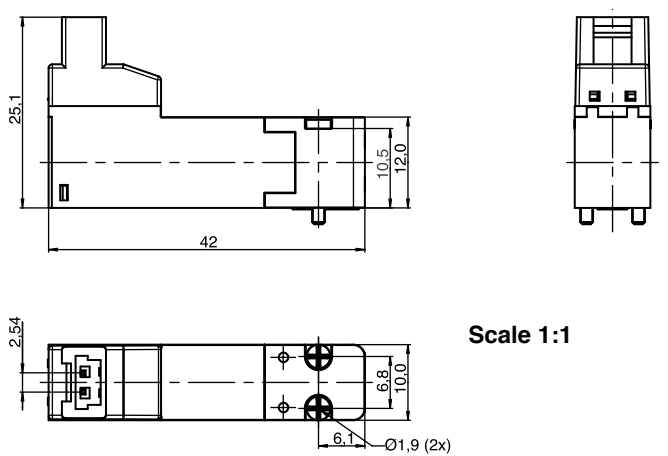
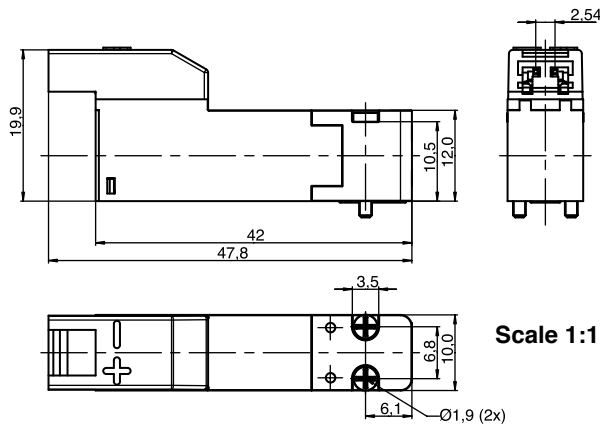
type 1

type 2



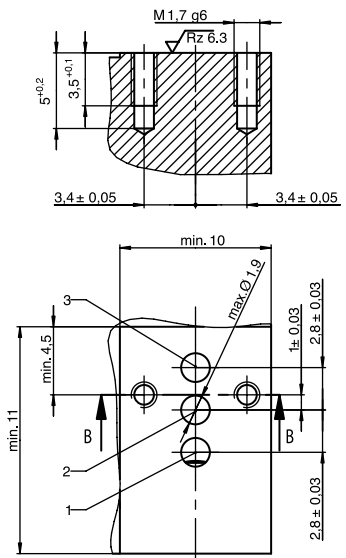
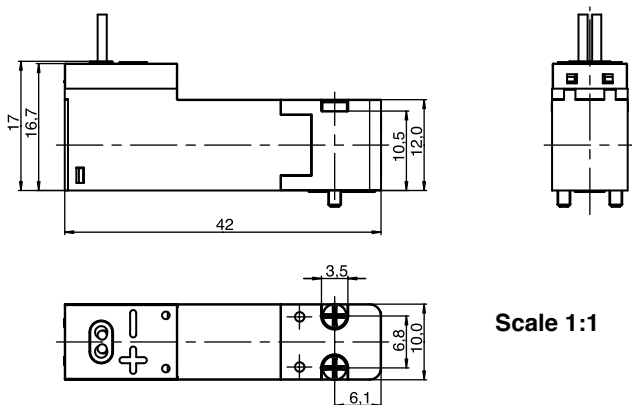
type 3

type 4



type 5

flange facing

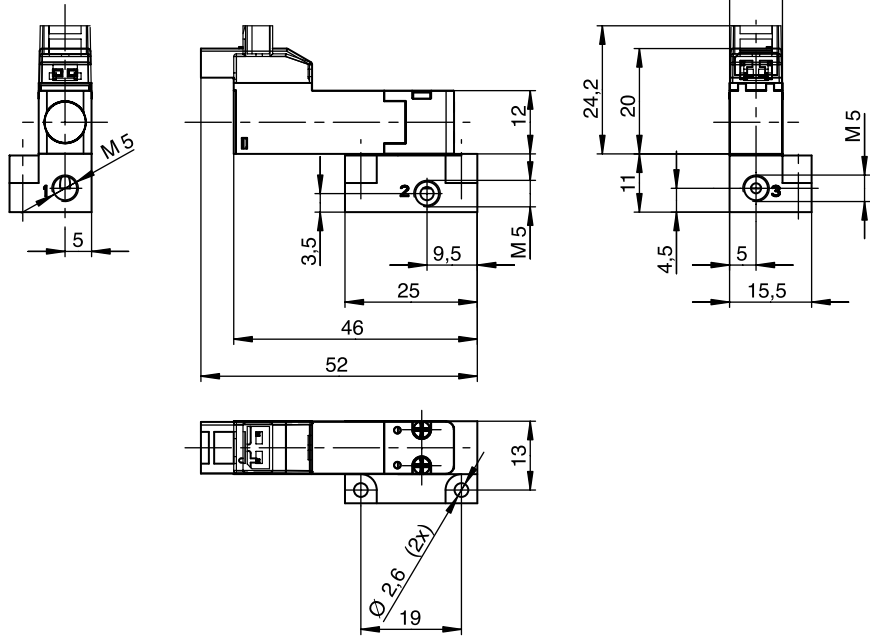


00233GB-2008/R01
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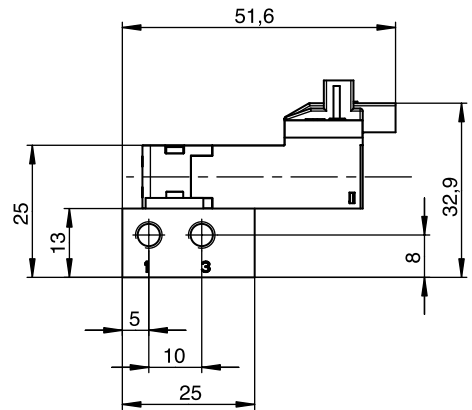
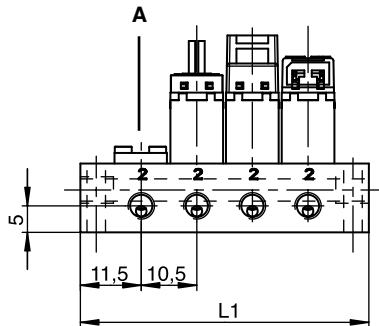
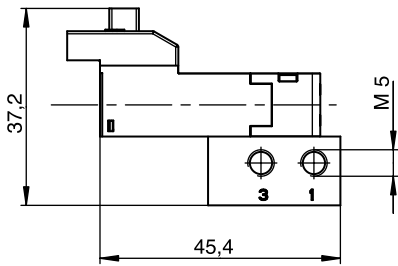
DIMENSIONS (mm), WEIGHT (kg) (kg)

solenoid valve mounted on single subbase

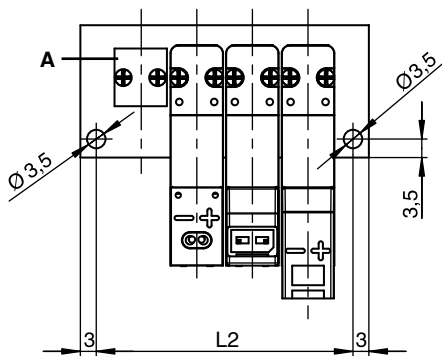
number of valves	subbase catalogue number*	weight
1	35300207	0,027



solenoid valve mounted on multiple subbase



number of valves	subbase catalogue number*	length		weight
		L1	L2	
2	35300198	35,7	29,7	0,066
3	35300199	46,2	40,2	0,091
4	35300200	56,7	50,7	0,116
5	35300201	67,2	61,2	0,141
6	35300202	77,7	71,7	0,167
7	35300203	88,2	82,2	0,191
8	35300204	98,7	92,7	0,216
9	35300205	109,2	103,2	0,242
10	35300206	119,7	113,7	0,268



A: Blanking plate, catalogue number: 513697-001

* The connectors must be ordered separately, please indicate the quantity and one of the following codes:

Connector, 2 wires

Distance between contacts 5,08 mm - length 0,5 m
- length 1,5 m
- length 3 m

Distance between contacts 2,54 mm - length 0,5 m
- length 1,5 m
- length 3 m

- catalogue number: **88118801**
- catalogue number: **88118802**
- catalogue number: **88118803**
- catalogue number: **88118806**
- catalogue number: **88118807**
- catalogue number: **88118808**

