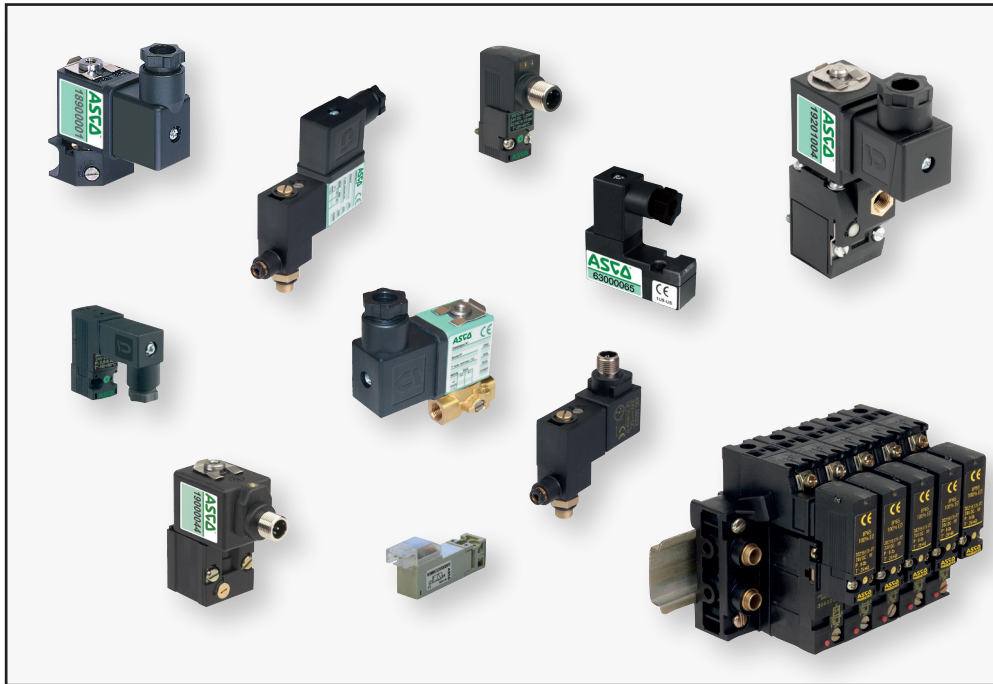


DIRECT OPERATED SOLENOID PILOT VALVES

Product Index



ports/positions	Function			pipe connections					max. pressure (bar)	flow at 6 bar l/min (ANR)	Kv coef.	M12 connection	Type	Illustration	Series	Page	
				▮ - instant fittings O.D. (mm) ▮ - internal thread (ØG) ▮ - external thread (ØG) ⊥ - pad mount ⊥ - pad mount, pneumatic-electric ⊥ - pad mount, CNOMO size 15 ⊥ - pad mount, CNOMO size 30													
	NC	NO	U	4	6	M3	M5	1/8									1/4
Solenoid pilot valves																	
3/2	●	●				▮			⊥	8	8	0,12		Micro 10		188	1
3/2	●	●					▮		⊥	10	13-44	0,20-0,65		Micro 10 high flow		188	5
2/2	●	●					▮		⊥	10	11-39	0,11-0,5	M12			302	9
3/2	●	●	●						⊥	10	11-39	0,11-0,5	M12			302	15
2/2	●	●		▮			▮	▮	⊥	8	6-7	0,086-0,12		Piezotronic		630	21
3/2	●	●	●				▮	▮		15	-	0,8-2,6				356	23
3/2	●			▮				▮		10	34	0,5	M12	Banjo		189	25
3/2	●	●		▮	▮			▮	⊥	10	50	0,6-0,7	M12			189	27
3/2	●			▮	▮			▮	⊥	10	70	1	M12			190	29
3/2	●	●	●	▮	▮			▮	⊥	16	112	1,5-1,6	M12			192	31

01817GB-2017/R01
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ISO 5599-1 standards	ports/positions	function	pipe connections										valve technology	stainless steel screws	max. pressure (bar)	flow at 6 bar l/min (ANR)	solenoid pilot valve	Type	Illustration	Series	Page
			- instant fittings O.D. (mm) - internal thread ØG - pad mount - pad mount, CNOMO size 15 - pad mount, CNOMO size 30	4 6 M3 M5 1/8 1/4 3/8 1/2 3/4 1 1 1/4 1 1/2	ØG 																
Electric-pneumatic piloting interface																					
3/2	●												rubber packed	8	154		Electric-pneumatic interface		302 304	35	

COIL CHARACTERISTICS

All coils are designed to operate at 15% or 10% below the nominal voltage (Un) and at 10% above the nominal voltage (Un). [Applicable standards: IEC 335, EN 60730- 1, UL 429]

The coils are rated for continuous duty within the maximum ambient temperature limits (100% ED).

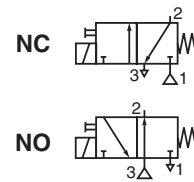
CATALOGUE NUMBERS OF REPLACEMENT COILS

solenoid valve series	coil type	alternating current , AC (~) 50 Hz					direct current , DC (=)			
		24V	48V	115V	230V	240V	12V	24V	48V	110V
189	C22A - 2.5 W	43004416 (✦)	43004417 (✦)	43004419 (✦)	43004422 (✦)	43004423 (✦)	43004149	43004166	43004167	43004168
	C22 - 2.5 W (M12)	-	-	-	-	-	-	43005523	-	-
189 banjo	CM22 ⁽¹⁾ - 2,5/3W	400127-081 (✦)	400127-085 (✦)	400127-098 (115V/60-120V/60)	400127-097 (✦)	400127-091 (✦)	400904-541	400904-542	400904-544	400904-548
356 (1/8)	CM22-4W/6,9W F	400127-181 (✦)	400127-185 (✦)	400127-181 (115V/60-120V/60)	400127-197 (✦)	-	400127-141	400127-142	400127-144	400127-148
356 (1/4)	CM25-5W/5W F	400727-181 (✦)	400727-185 (✦)	400727-118 (115V/60)	400727-117 (130V/50)	-	400727-181	400727-185	400727-118	400727-117
190	C25A - 3W	43004469	43004473	43004471	43004472	-	43004469	43004473	43004471	43004472
	C25 - 3 W (M12)	-	-	-	-	-	-	43005525	-	-
192	C30A	43005604 (✦)	43005611	43005617 (115V/60-120V/60)	43005627	-	-	43005642	-	-
	C30 (M12)	-	-	-	-	-	-	43005664	-	-

⁽¹⁾ For high reliability in humid exterior environments

(✦)Bifrequency 50/60 Hz.

CM22-2,5/3W COIL with connector Example: series 356 (1/8)	C22 COIL with M12 connection Example: series 189	CM25-5/5W COIL with connector Example: series 356 (1/4)	C25 COIL with M12 connection Example: series 190	C30A COIL with connector Example: series 192	C30 COIL with M12 connector Example: series 192



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)	coefficient Kv	min.	max.			
NC 	0,5	0,7	8	0,12	0	8	1,3	1	18801003
								2	18801076
								3	18801074
	0,8	0,8	10	0,15	0	4	1,3	4	18801078
								5	18801072
								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	
NO 	0,5	0,5	8	0,12	0	6	1,3	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
								5	18801095
								1	18801096
	1,0	1,0	12	0,18	0	1,5	1,3	2	18801097
								3	18801098
								4	18801099
							5	18801100	

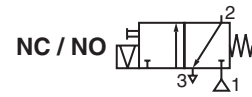
(*) Type 1,2,3, 4 with LED and electrical protection
1 = horizontal, width 5,08 mm
2 = vertical, width 5,08 mm

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



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 = 12V = (+10%, -15%) 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

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)	coefficient 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

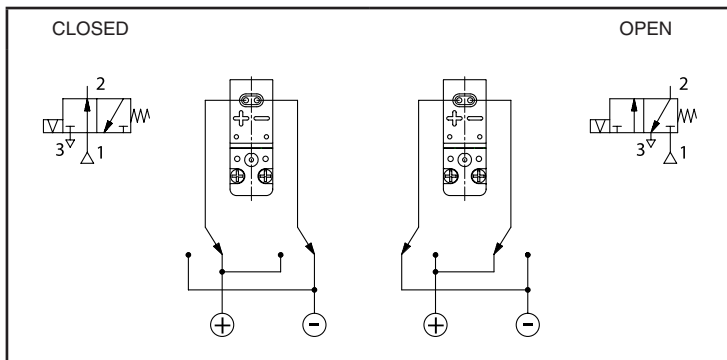
2 = vertical, width 5,08 mm

3 = horizontal, width 2,54 mm

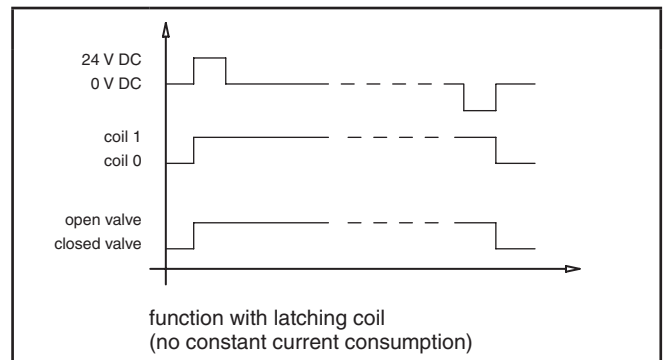
4 = vertical, width 2,54 mm

5 = cable ends 0,5 m long, 0,25 mm²

WIRING DIAGRAM



FUNCTIONAL DIAGRAM

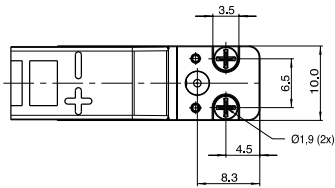
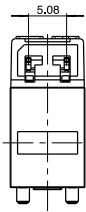
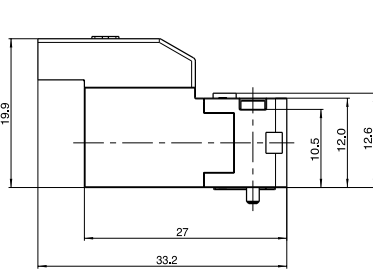


DIMENSIONS (mm), WEIGHT (kg)



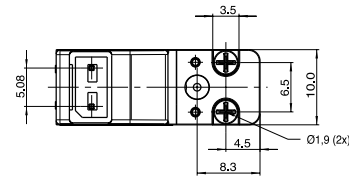
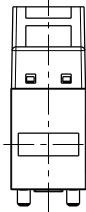
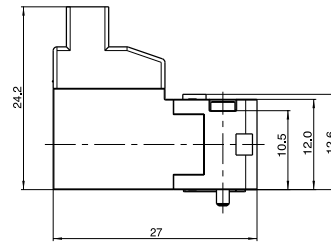
weight
0,0095

type 1



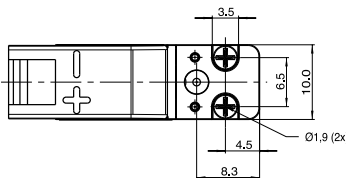
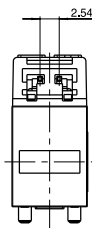
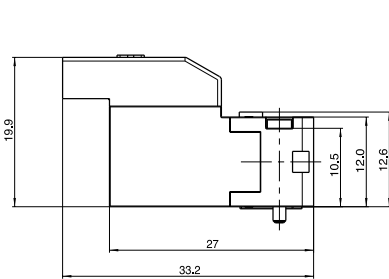
Scale 1

type 2



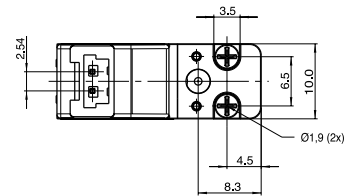
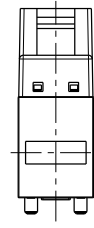
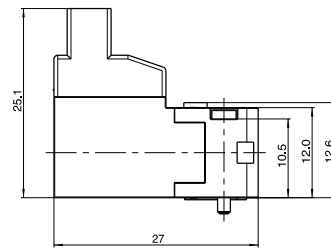
Scale 1

type 3



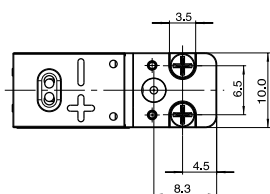
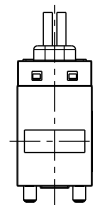
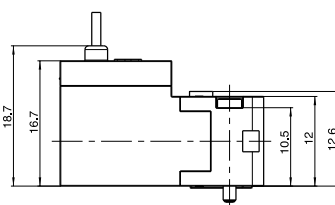
Scale 1

type 4



Scale 1

type 5



Scale 1

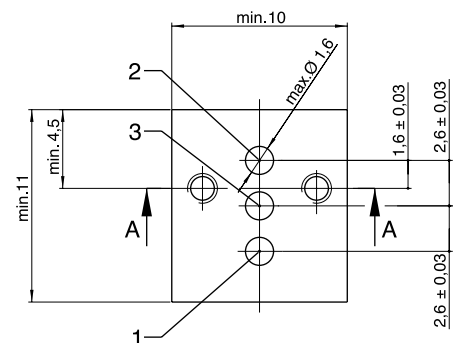
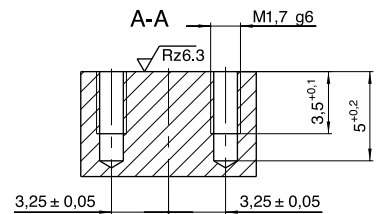
flange facing

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

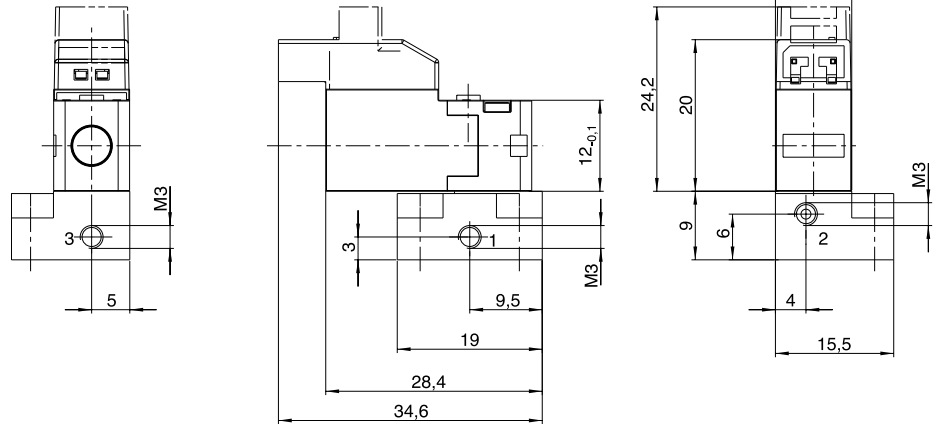
Use in vacuum (NC)
1 = Vacuum pump
2 = Outlet
3 = Atmosphere



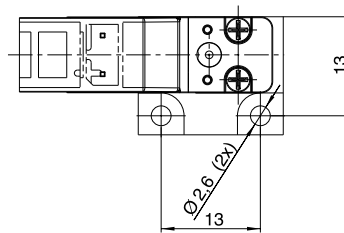
DIMENSIONS (mm), WEIGHT (kg)

solenoid valve mounted on single subbase

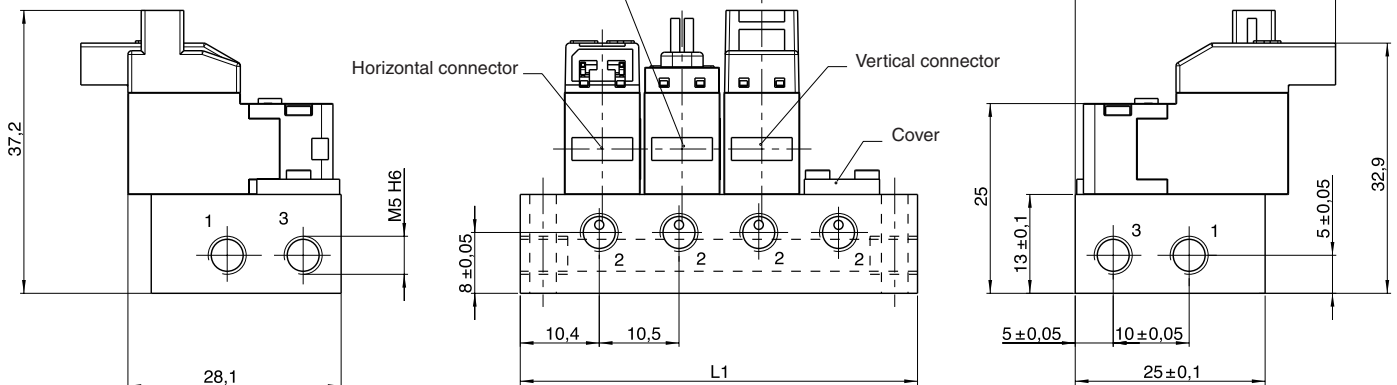
number of valves	subbase catalogue number*	weight
1	35300101	0,015



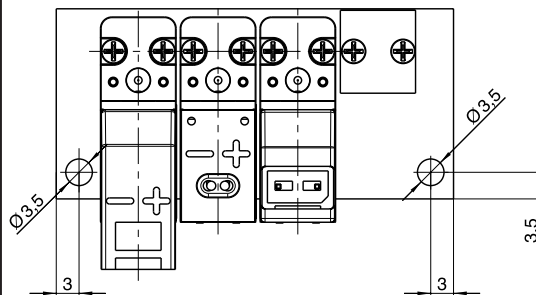
Scale 1



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

- length 1,5 m

- length 3 m

- catalogue number: **88118801**

- catalogue number: **88118802**

- catalogue number: **88118803**

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

- length 1,5 m

- length 3 m

- catalogue number: **88118806**

- catalogue number: **88118807**

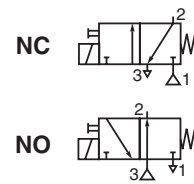
- catalogue number: **88118808**





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 ISO 8573-1: 2010 [6:4:4]
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

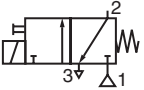
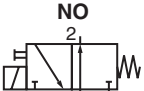
X3 = type 3, horizontal, distance between contacts 2,54 mm

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.

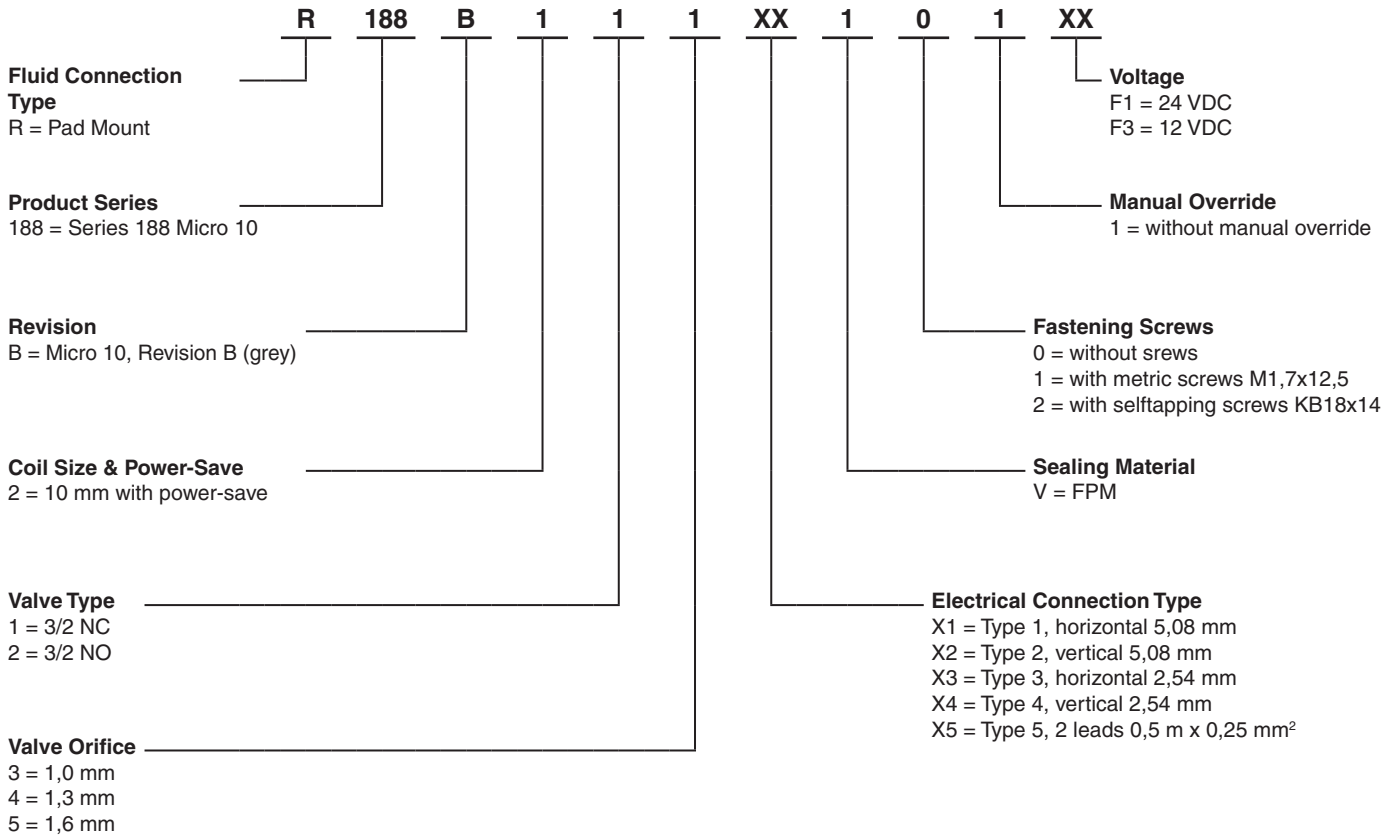
SPECIFICATIONS

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


00233GB-2016/R02
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ORDERING

15-DIGIT PRODUCT CODE



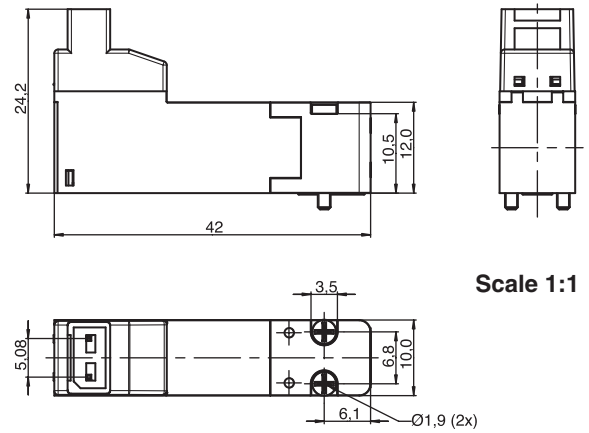
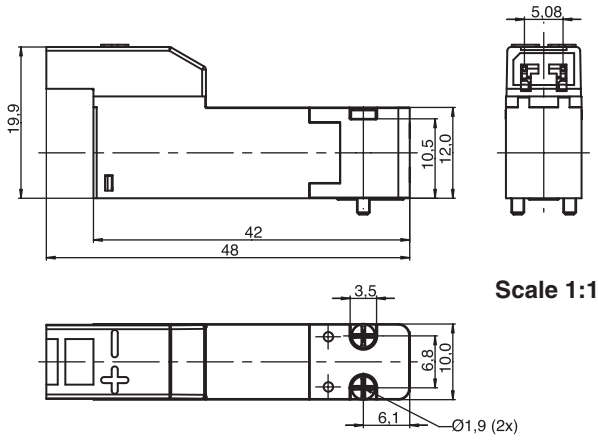
ORDERING EXAMPLE: R188B213X1V11F1 = pad mount, series 188, Micro 10 Revision B (grey), with power-save, 3/2 NC, orifice 1,0 mm, Type 1, FPM, M 1,7 x 12,5, without manual override, 24 VDC

DIMENSIONS (mm), WEIGHT (kg) 

weight
0,0017

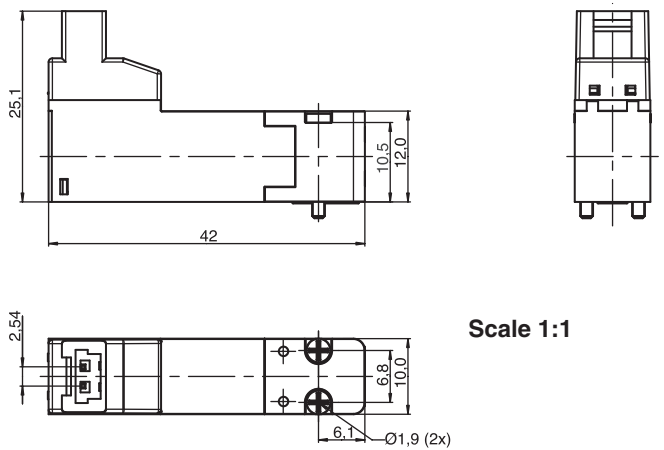
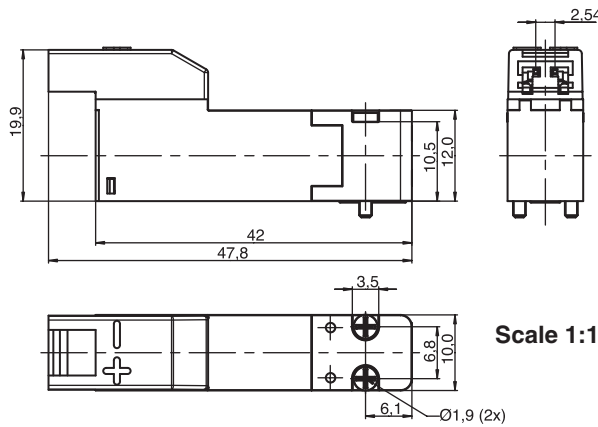
type 1

type 2



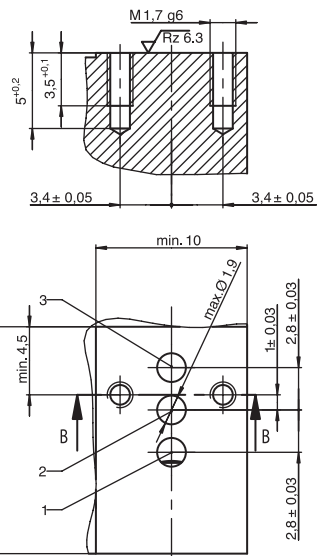
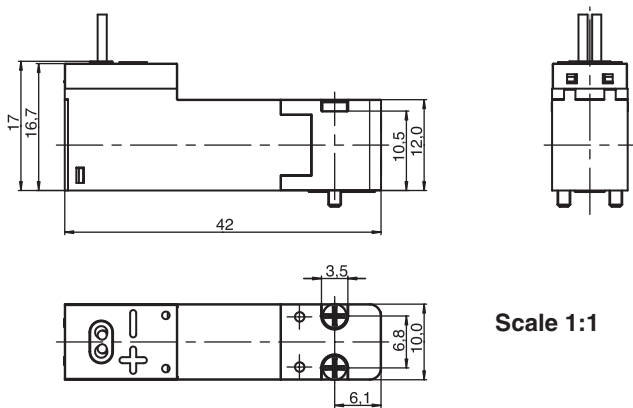
type 3

type 4



type 5

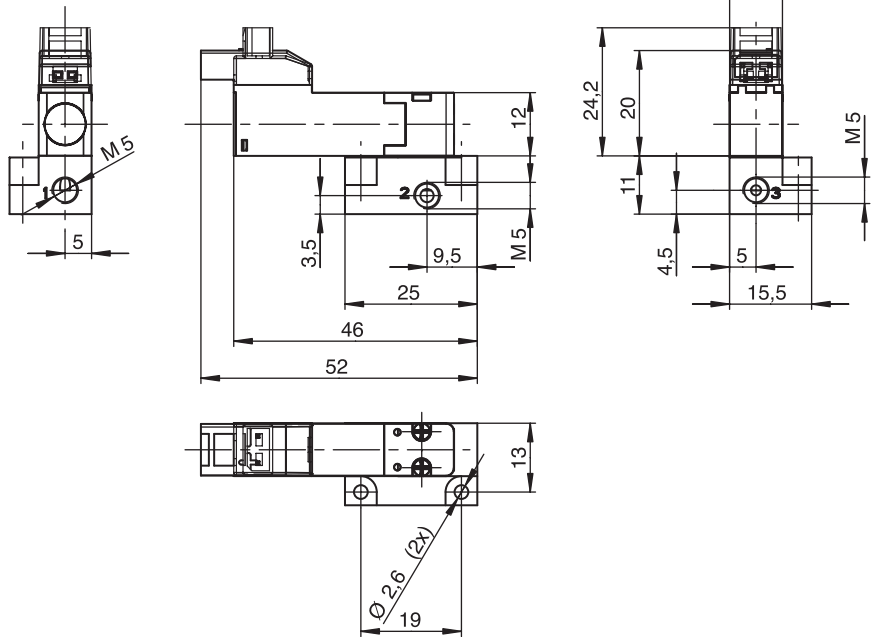
flange facing



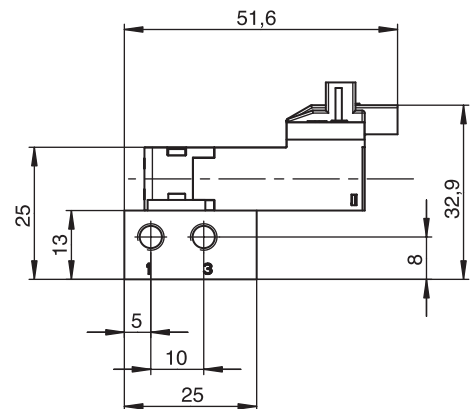
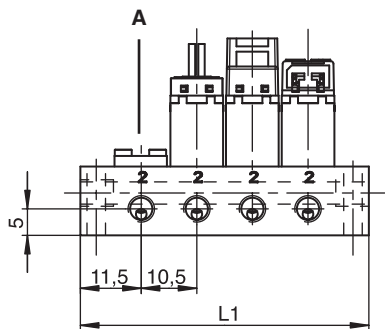
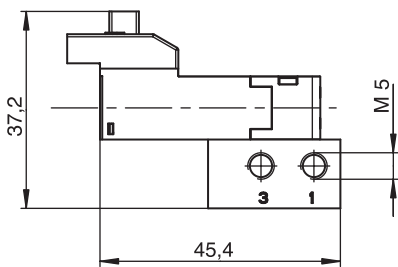
DIMENSIONS (mm), WEIGHT (kg) (kg)

solenoid valve mounted on single subbase

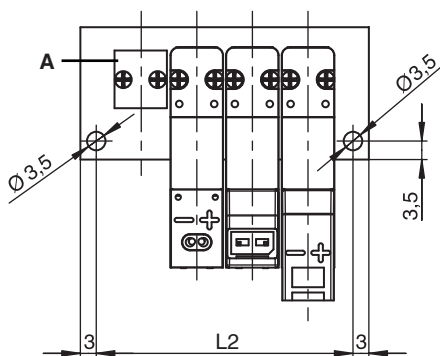
number of valves	subbase catalogue number*	weight
1	35300207	0,027



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:

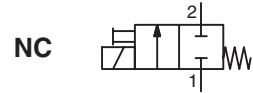
Connector, 2 wires

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**





FEATURES

- Compact, monobloc solenoid pilot valve with spade-plug connector type EN 175301-803, industry standard form C, with 9,4 mm spacing, or to EN 175301-803, form C, with 8 mm spacing
- Version with or without integrated LED and electrical protection
LED indicator visible from 3 sides
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure See «SPECIFICATIONS» [1 bar = 100 kPa]
Pneumatic base ISO 15218 (CNOMO E06.36.120N, size 15)
Connection Subbase
Response time 8 - 15 ms

fluids (*)	temperature range (TS)	seal materials (*)
air or inert gas	-25°C to +60°C (LP2) ⁽¹⁾	NBR (nitrile)
filtered at 50 µm, lubricated or not	-25°C to +60°C / +50°C (LP3) ⁽¹⁾	FPM (fluoroelastomer)

⁽¹⁾ LP2, LP3: see "electrical characteristics" table

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body PARA
Internal parts POM, PET, stainless steel and brass
Seals NBR (disc), FPM (others)
Pneumatic interface seal TPE

OTHER MATERIALS

Coil Thermoplastic PET

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connector Spade plug (cable Ø 4-6 mm)
Connector specification EN 175301-803, industry standard form B (9,4 mm) or EN 175301-803, form C (8 mm)
IEC 335

Electrical safety
Electrical enclosure protection Moulded IP65 (EN 60529)
Standard voltages DC (=): 24V
(Other voltages on request) AC (~): 24V - 115V - 230V / 50-60 Hz

power ranges	coils		power ratings (↔)				operator ambient temperature range ⁽³⁾ (TS) (°C)	type ⁽²⁾
	voltages (V)		inrush ~	holding ~	hot/cold =			
	~	=	(VA)	(VA)	(W)	(W)		
LP2	24-115	24	1,4	1,2	1,1	1 / 1,2	-25 to +60	01
LP3	230	24	2,1	1,6	1,5	2 / 2,65	-25 to +60 (~) / +50 (=) ⁽³⁾	

⁽²⁾ Refer to the dimensional drawings on the following page.

⁽³⁾ With LED and joinable subbase mounting, see following pages

(↔) Nominal power ratings of versions without LED indicator and electrical protection.

For versions with LED indicator and electrical protection, add:
0,15 W with DC (=)
0,4 W / VA with AC (~)

SPECIFICATIONS

orifice size (mm)	flow				operating pressure differential (bar)		power ranges	basic catalogue number			
	at 6 bar l/min (ANR)		coefficient Kv		min.	max. (PS)		manual operator		maintained	
	1 → 2	2 → 3	1 → 2	2 → 3				impulse	8 mm	9,4 mm	8 mm
	~	=					~	=	~	=	=
NC - Normally closed (Without LED and protection)											
0,6	11	20	0,11	0,26	0	10	LP2	30211007	30210007	30211008	30210008
0,8	17	28	0,22	0,35	0	8	LP2	30211010	30210010	30211011	30210011
1,1	32	51	0,35	0,50	0	5	LP2	30211016	30210016	30211017	30210017
					0	10	LP3	30211019	30210019	30211020	30210020
1,5	39	53	0,50	0,56	0	3	LP2	30211022	30210022	30211023	30210023
					0	6	LP3	30211025	30210025	30211026	30210026
NC - Normally closed (With LED and protection) ⁽⁴⁾											
0,6	11	20	0,11	0,26	0	10	LP2	30215007	30214007	30215008	30214008
0,8	17	28	0,22	0,35	0	8	LP2	30215010	30214010	30215011	30214011
1,1	32	51	0,35	0,50	0	5	LP2	30215016	30214016	30215017	30214017
					0	10	LP3	30215019	-	30215020	-
1,5	39	53	0,50	0,56	0	3	LP2	30215022	30214022	30215023	30214023
					0	6	LP3	30215025	-	30215026	-

⁽⁴⁾ Only available in 24 V AC/DC and 115 V AC.

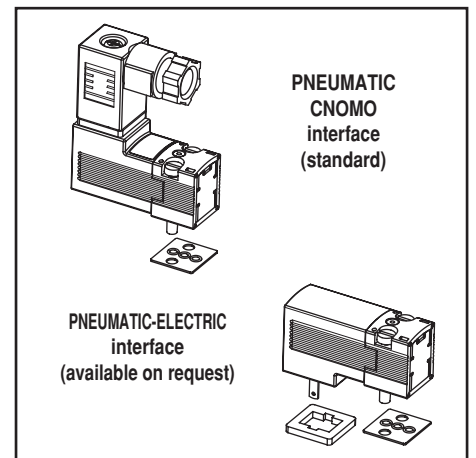
When ordering, please specify in addition to the basic catalogue number:

the type of current: voltage / frequency + the version: with or without connector

	~	=
with connector	--A	--D
without connector	--L	--P

} to be inserted after
the basic catalogue number

Examples: • with connector 24V DC : 30211007--D 24V DC
• without connector 24V DC : 30211007--P 24V DC



OPTIONS AND ACCESSORIES

- Seals and disc made of FPM (fluoroelastomer)
- Versions without manual operator and NO (Normally Open): contact us
- Version with pneumatic-electric interface
- Version 12 V DC, LP2, connector EN 175301-803, industry standard form C (9,4 mm)
- **Connector EN 175301-803, form C (8 mm):**
 - standard: catalogue number **88130211**
 - with cable 2 m length: Contact us
- **Connector EN 175301-803, industry standard form C (9,4 mm):**
 - standard: catalogue number **88143581**
 - with cable 2 m length: catalogue number **88143567**
- Explosionproof enclosures for use in zones 0/20-1/21-2/22, categories 1-2-3 to ATEX-Directive 2014/34/EU (see "Explosionproof solenoids" section)

INSTALLATION

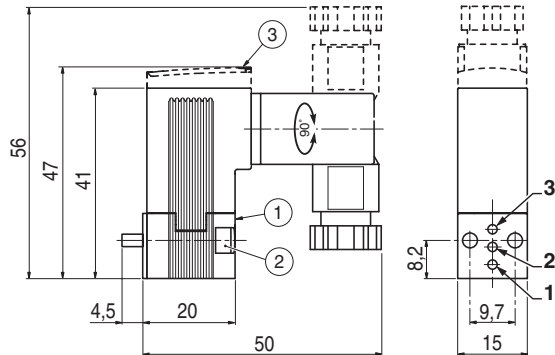
- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valve supplied with mounting screws and mounting pad seal(s)
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg)



TYPE 01

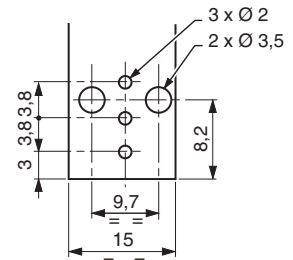
IEC 335 / EN 175301-803
IP65



Subbase mounting surface: ISO 15218
(CNOMO E06.36.120N, size 15)

function	connection		
	1	2	3
NC	P	O	-

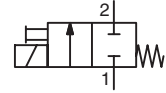
P: Pressure
O: Outlet



- ① Manual operator location
- ② 2 mounting screw M3 x 20
- ③ Version with LED and electrical protection

weight ⁽¹⁾
0,047

⁽¹⁾ with standard connector.



FEATURES

- Compact, monobloc solenoid pilot valve with M12 connector or cable ends
- Version with integrated LED indicator and electrical protection.
LED indicator visible from 3 sides
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure	See «SPECIFICATIONS» [1 bar = 100 kPa]
Pneumatic base	ISO 15218 (CNOMO E06.36.120N, size 15)
Connection	Subbase
Response time	8 - 15 ms

fluids (*)	temperature range (TS)	seal materials (*)
air or inert gas filtered at 50 µm, lubricated or not	-25°C to +60°C (LP2) ⁽¹⁾	NBR (nitrile) FPM (fluoroelastomer)

⁽¹⁾ LP2: see "electrical characteristics" table

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body	PAA
Internal parts	POM, PET, stainless steel and brass
Pneumatic interface seal	TPE

OTHER MATERIALS

Coil	Thermoplastic PET
-------------	-------------------

ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Connection	Connector M12 or cable ends
Electrical safety	IEC 335
connector M12	CNOMO E03.62.520.N
cable ends	EN 60730
Electrical enclosure protection	Moulded IP67 (EN 60529)
Standard voltages	DC (=) : 24V

power ranges	coils		power ratings (⇧)			operator ambient temperature range ⁽³⁾ (TS) (°C)	type ⁽²⁾
	voltages (V)		inrush	holding	hot/cold		
LP2	~	=	(VA)	(VA) (W)	(W)	-25 to +60	01-02-03
	-	24	-	-	1,15 / 1,35		

⁽²⁾ Refer to the dimensional drawings on the following page. ⁽³⁾ For joinable subbase mounting, see pages suivantes.

SPECIFICATIONS

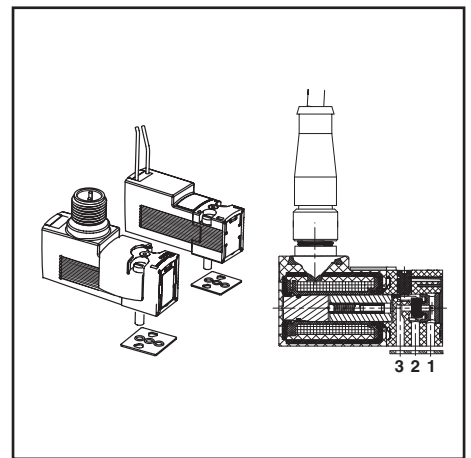
orifice size (mm)	flow				operating pressure differential (bar)		power ranges	basic catalogue number	
	at 6 bar l/min (ANR)		coefficient Kv		min.	max. (PS)		impulse	manual operator maintained
	1 → 2	2 → 3	1 → 2	2 → 3					
NC - Normally closed, connection M12 + LED and protection									
1,5	39	53	0,50	0,56	0	3	LP2	30212022	30212023
NC - Normally closed, cable ends + LED and protection									
1,5	39	53	0,50	0,56	0	3	LP2	30213022	30213023

When ordering:

	M12	cable
with connector	--D	<input checked="" type="checkbox"/>
without connector	--P	<input checked="" type="checkbox"/>
complete	<input checked="" type="checkbox"/>	--D

} to be inserted after the basic catalogue number

- Examples:
- M12 with connector : **30212022--D**
 - M12 without connector : **30212022--P**
 - cable ends : **30213022--D**



(⇧) Nominal power ratings of standard versions (with LED indicator and electrical protection)

OPTIONS AND ACCESSORIES

- Seals and disc made of FPM (fluoroelastomer)
- Versions without manual operator and NO (Normally Open): contact us
- Version with pneumatic-electric interface
- Straight M12 connector:
 - with 5 m cable length: catalogue number **88130212**
- Explosionproof enclosures for use in zones 0/20-1/21-2/22, categories 1-2-3 to ATEX-Directive 2014/34/EU (see "Explosionproof solenoids" section)

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valve supplied with mounting screws and mounting pad seal(s)
- Installation/maintenance instructions are included with each valve

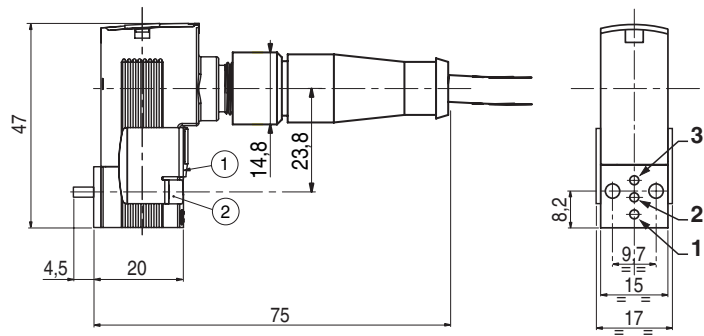
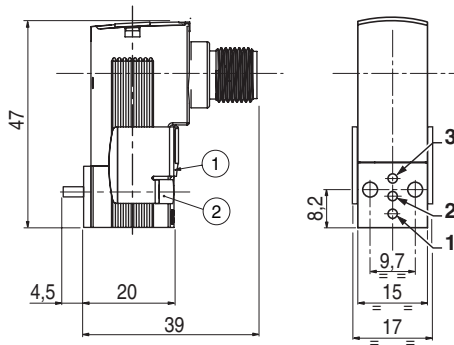
DIMENSIONS (mm), WEIGHT (kg)



TYPE 01
IEC 335
Connection M12
IP67



TYPE 02
IEC 335
Straight M12 connector, 5 m cable length
IP67



- ① Manual operator location.
- ② 2 mounting screw M3 x 20

M12 ⁽¹⁾		weight	cable ends
⁽¹⁾	⁽²⁾		
0,049	0,288		0,040

- ⁽¹⁾ Without connector
- ⁽²⁾ With connector

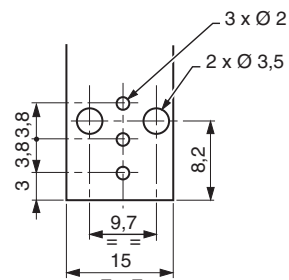
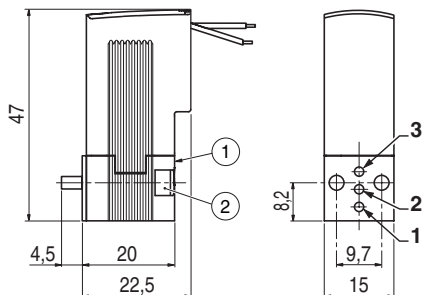
function	connection		
	1	2	3
NC	P	O	-

P: Pressure O: Outlet

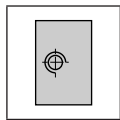


TYPE 03
IEC 335
Cable ends 0,3 m length
IP67

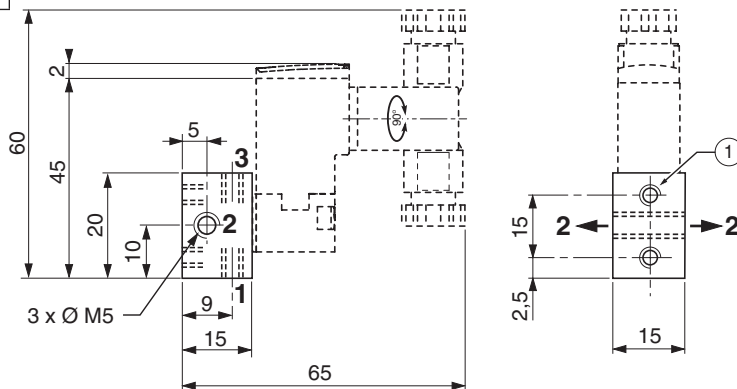
Subbase mounting surface: ISO 15218
(CNOMO E06.36.120N, size 15)



DIMENSIONS (mm), WEIGHT (kg)



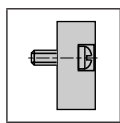
Single subbase Aluminium or brass



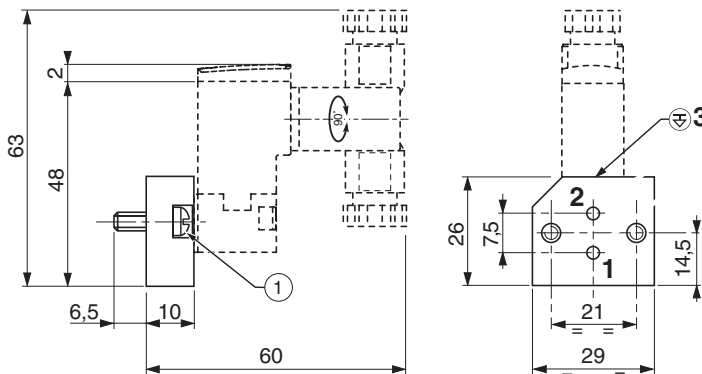
- ① Mounting: 2 holes M3, depth 4,5
Orifice (2) can be connected on the left or on the right of the subbase.

material	catalogue number	weight ⁽¹⁾
aluminium	88263002	0,011
brass	30300001	0,034

⁽¹⁾ subbase alone



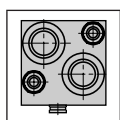
Adapter CNOMO size 30 (only for NC version) Aluminium



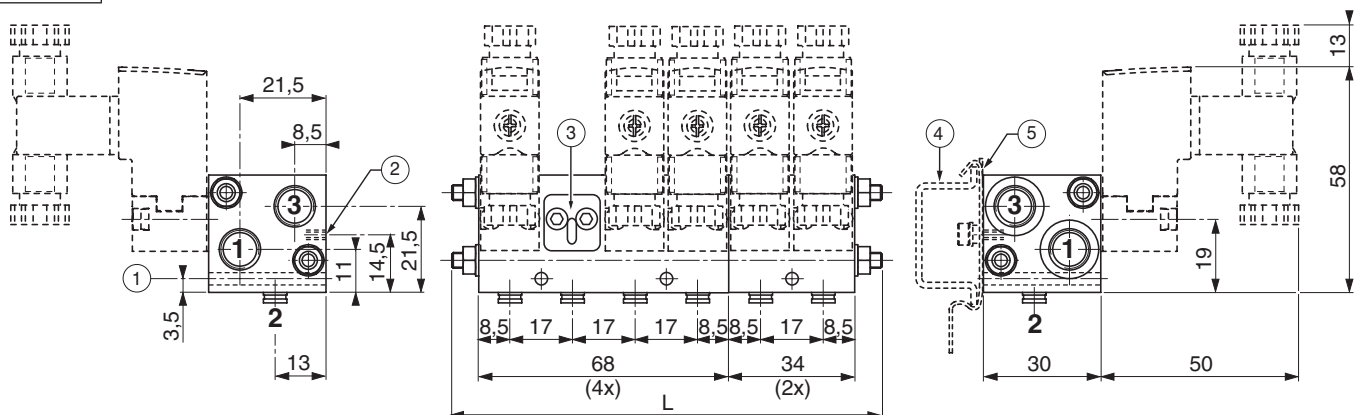
- ① Mounting: 2 screws M4 x 10 (supplied)

catalogue number	weight ⁽²⁾
88263001	0,018

⁽²⁾ adapter alone



Joinable subbases Aluminium



Ports 1 and 3: G1/8

Port 2: coupling for 4mm OD tube

- ① Fixing hole Ø 3,2 (2 for 4x ; 1 for 2x)
- ② Fixing hole M3, depth 8 (2 for 4x ; 1 for 2x)
- ③ Mating surface blanking plates (option)
- ④ TS35 DIN rail (not supplied)
- ⑤ Clip for DIN rail mounting (option)

catalogue number	x	subbases	L	weight ⁽³⁾
35500564	2	2x	-	0,076
35500565	4	4x	-	0,148
35500566	6	4x + 2x	114	0,236
35500567	8	4x + 4x	148	0,313
35500568	10	4x + 4x + 2x	182	0,389
35500569	12	4x + 4x + 4x	216	0,466

⁽³⁾ subbases alone

x = place for mini-solenoid valves.

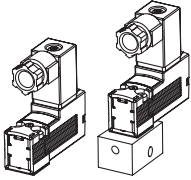
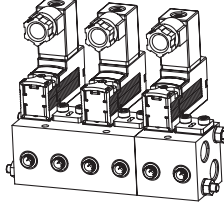
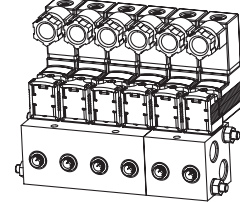
2 plugs R1/8 supplied.

All leaflets are available on: www.asco.com

OPTIONS AND ACCESSORIES

- Additional subbase with 2 places (with seals): catalogue number **35500570**
- 2 tie-rods + nuts for a subbase with:
 4 places: catalogue number **88100752**
 6 places: catalogue number **88100753**
 8 places: catalogue number **88100754**
 10 places: catalogue number **88100755**
 12 places: catalogue number **88100756**
- Mounting kit for DIN rail (2 clips + screws + washers): catalogue number **88100757**
- Mating surface blanking plate: catalogue number **88130203**

AMBIENT TEMPERATURE RANGES

current type	power range	power coil		version	  
		inrush/holding (VA) ~	hot/cold (W) =		
DC (=)	LP2 ⁽¹⁾	-	1/1,2	standard	-25°C ; +60°C
		-	1,15/1,35	LED + protection	
	LP3 ⁽²⁾	-	2/2,65	standard	-25°C ; +50°C
		-	2,15/2,8	LED + protection	-25°C ; +40°C
AC (~)	LP2 ⁽²⁾	1,4/1,2	-	standard	-25°C ; +60°C
		1,8/1,6	-	LED + protection	
	LP3 ⁽²⁾	2,1/1,6	-	standard	-25°C ; +60°C
		2,5/2	-	LED + protection	-25°C ; +50°C

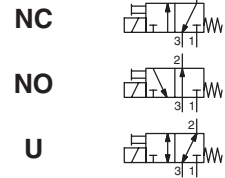
⁽¹⁾ Voltage: -15% / +20%

⁽²⁾ Voltage: -15% / +10%



MINI-SOLENOID VALVES

ISO 15218 (CNOMO, size 15) interface
direct operated, pad mounting body
connector size 15



3/2
Series
302

FEATURES

- Compact, monobloc solenoid pilot valve with spade-plug connector type EN 175301-803, industry standard form C, with 9,4 mm spacing, or to EN 175301-803, form C, with 8 mm spacing
- Version with or without integrated LED and electrical protection
LED indicator visible from 3 sides
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure
Pneumatic base
Connection
Response time

See «SPECIFICATIONS» [1 bar = 100 kPa]
ISO 15218 (CNOMO E06.36.120N, size 15)
Subbase
8 - 15 ms

fluids (*)	temperature range (TS)	seal materials (*)
air or inert gas filtered at 50 µm, lubricated or not	-10°C to +50°C (LP1) ⁽¹⁾	NBR (nitrile) FPM (fluoroelastomer)
	-25°C to +60°C (LP2) ⁽¹⁾	
	-25°C to +60°C / +50°C (LP3) ⁽¹⁾	

⁽¹⁾ LP1, LP2, LP3: see "electrical characteristics" table

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body PARA
Internal parts POM, PET, stainless steel and brass
Seals NBR (disc), FPM (others)
Pneumatic interface seal TPE

OTHER MATERIALS

Coil Thermoplastic PET

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connector Spade plug (cable Ø 4-6 mm)
Connector specification EN 175301-803, industry standard form B (9,4 mm)
or EN 175301-803, form C (8 mm)

Electrical safety IEC 335
Electrical enclosure protection Moulded IP65 (EN 60529)
Standard voltages DC (=): 24V
(Other voltages on request) AC (~): 24V - 115V - 230V / 50-60 Hz

power ranges	coils		power ratings (↔)			operator ambient temperature range ⁽³⁾ (TS) (°C)	type ⁽²⁾
	voltages (V)		inrush	holding	hot/cold		
LP1	-	24	-	-	-	0,5 / 0,55	-10 to +50
LP2	24-115	24	1,4	1,2	1,1	1 / 1,2	-25 to +60
LP3	230	24	2,1	1,6	1,5	2 / 2,65	-25 to +60 (-)/+50 (=) ⁽³⁾

⁽²⁾ Refer to the dimensional drawings on the following page. ⁽³⁾ With LED and joinable subbase mounting, see following pages

SPECIFICATIONS (NO and U, following page)

orifice size (mm)	flow				operating pressure differential (bar)		power ranges	basic catalogue number			
	at 6 bar l/min (ANR)		coefficient Kv		min.	max. (PS)		manual operator			
	1 → 2	2 → 3	1 → 2	2 → 3				impulse		maintained	
								9,4 mm	8 mm	9,4 mm	8 mm
	~	=	~	=				~	=	~	=
NC - Normally closed (Without LED and protection)											
0,6	11	20	0,11	0,26	0	8	LP1	-	30211106	-	30211107
					0	10	LP2	30211109	30210109	30211110	30210110
0,8	17	28	0,22	0,35	0	8	LP2	30211112	30210112	30211113	30210113
					0	5	LP2	30211118	30210118	30211119	30210119
					0	10	LP3	30211121	30210121	30211122	30210122
1,5	39	53	0,50	0,56	0	3	LP2	30211124	30210124	30211125	30210125
					0	6	LP3	30211127	30210127	30211128	30210128
NC - Normally closed (With LED and protection) ⁽⁴⁾											
0,6	11	20	0,11	0,26	0	10	LP2	30215109	30214109	30215110	30214110
0,8	17	28	0,22	0,35	0	8	LP2	30215112	30214112	30215113	30214113
					0	5	LP2	30215118	30214118	30215119	30214119
					0	10	LP3	30215121	-	30215122	-
					0	3	LP2	30215124	30214124	30215125	30214125
					0	6	LP3	30215127	-	30215128	-

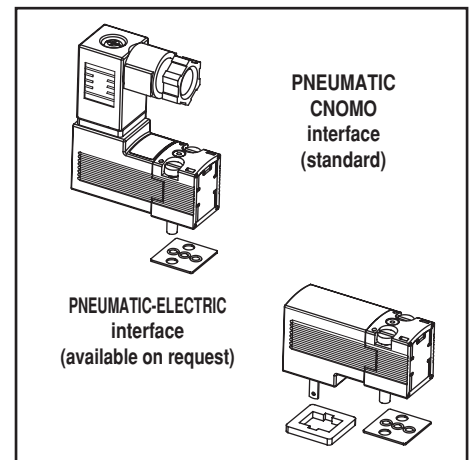
⁽⁴⁾ Only available in 24 V AC/DC and 115 V AC.

When ordering, please specify in addition to the basic catalogue number:
the type of current: voltage / frequency + the version: with or without connector

	~	=
with connector	--A	--D
without connector	--L	--P

to be inserted after
the basic catalogue number

Examples: • with connector 24V DC : **30211109--D** 24V DC
• without connector 24V DC : **30211109--P** 24V DC



00075GB-2017/R01 Availability, design and specifications are subject to change without notice. All rights reserved.

SPECIFICATIONS: NO, U

orifice size (mm)	flow				operating pressure differential (bar)		power ranges	basic catalogue number			
	at 6 bar l/min (ANR)		coefficient Kv					manual operator		impulse	
	1 → 2	2 → 3	1 → 2	2 → 3	min.	max. (PS)		9,4 mm	8 mm	9,4 mm	8 mm
	~	=	=	=	=	=		=	=	=	=
NO - Normally open (Without LED and protection)											
0,8	20	17	0,26	0,20	0	8	LP2	30211130	30210130	30211131	30210131
					0	10	LP3	30211133	30210133	30211134	30210134
1	28	32	0,35	0,35	0	5	LP2	30211136	30210136	30211137	30210137
					0	8	LP3	30211139	30210139	30211140	30210140
1,5	53	39	0,56	0,50	0	2	LP2	30211142	30210142	30211143	30210143
					0	6	LP3	30211145	30210145	30211146	30210146
NO - Normally open (With LED and protection)⁽⁵⁾											
0,8	20	17	0,26	0,20	0	8	LP2	30215130	30214130	30215131	30214131
					0	10	LP3	30215133	30214133	30215134	30214134
1	28	32	0,35	0,35	0	5	LP2	30215136	30214136	30215137	30214137
					0	8	LP3	30215139	-	30215140	-
1,5	53	39	0,56	0,50	0	2	LP2	30215142	30214142	30215143	30214143
					0	6	LP3	30215145	-	30215146	-
U - universal (Without LED and protection)											
0,8	17	20	0,20	0,26	0	6	LP2	30211148	30210148	30211149	30210149
U - universal (With LED and protection)⁽⁵⁾											
0,8	17	20	0,20	0,26	0	6	LP2	30215148	30214148	30215149	30214149

⁽⁵⁾ Only available in 24 V AC/DC and 115 V AC.

When ordering, please specify in addition to the basic catalogue number:

the type of current: voltage / frequency + the version: with or without connector

	~	=
with connector	--A	--D
without connector	--L	--P

{ to be inserted after
the basic catalogue number

Examples: • with connector 24V DC : **30211130--D** 24V DC
• without connector 24V DC : **30211130--P** 24V DC

OPTIONS AND ACCESSORIES

- Seals and disc made of FPM (fluoroelastomer)
- Versions without manual operator and Uv (Universal vacuum): contact us
- Version with pneumatic-electric interface
- Version 12 V DC, LP2, connector EN 175301-803, industry standard form C (9,4 mm)
- [Connector EN 175301-803, form C \(8 mm\)](#):
- standard: catalogue number **88130211**
- with cable 2 m length: Contact us
- [Connector EN 175301-803, industry standard form C \(9,4 mm\)](#):
- standard: catalogue number **88143581**
- with cable 2 m length: catalogue number **88143567**
- Explosionproof enclosures for use in zones 0/20-1/21-2/22, categories 1-2-3 to ATEX-Directive 2014/34/EU (see "Explosionproof solenoids" section)

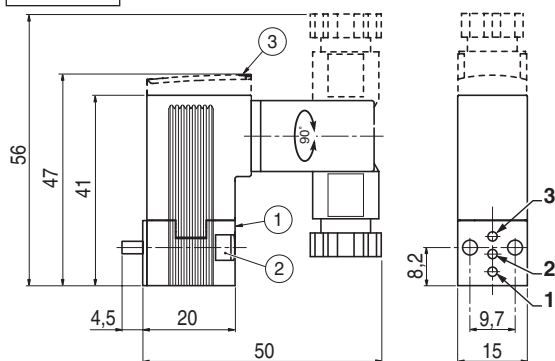
INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valve supplied with mounting screws and mounting pad seal(s)
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg)

TYPE 01

IEC 335 / EN 175301-803
IP65

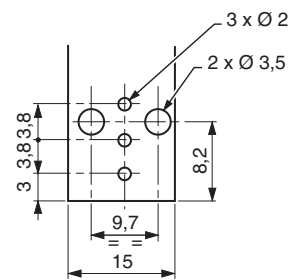


function	connection		
	1	2	3
universal	NC	P	O
	NO	E	P
universal	MIX	P2	P1
	SEL	O 2	O 1

P: Pressure
E: Exhaust

O: Outlet

Subbase mounting surface: ISO 15218
(CNOMO E06.36.120N, size 15)



- 1 Manual operator location
- 2 2 mounting screw M3 x 20
- 3 Version with LED and electrical protection

weight⁽¹⁾
0,047

⁽¹⁾ with standard connector.

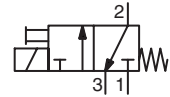
All leaflets are available on: www.asco.com



MINI-SOLENOID VALVES

ISO 15218 (CNOMO, size 15) interface
direct operated, pad mounting body
connection M12 or with cable ends

NC



3/2
Series
302

FEATURES

- Compact, monobloc solenoid pilot valve with M12 connector or cable ends
- Version with integrated LED indicator and electrical protection.
LED indicator visible from 3 sides
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure See «SPECIFICATIONS» [1 bar = 100 kPa]
Pneumatic base ISO 15218 (CNOMO E06.36.120N, size 15)
Connection Subbase
Response time 8 - 15 ms

fluids (*)	temperature range (TS)	seal materials (*)
air or inert gas filtered at 50 µm, lubricated or not	-25°C to +60°C (LP2) ⁽¹⁾	NBR (nitrile) FPM (fluoroelastomer)

⁽¹⁾ LP2: see "electrical characteristics" table

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body PAA
Internal parts POM, PET, stainless steel and brass
Pneumatic interface seal TPE

OTHER MATERIALS

Coil Thermoplastic PET

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connection Connector M12 or cable ends
Electrical safety IEC 335

connector M12 CNOMO E03.62.520.N
 cable ends EN 60730

Electrical enclosure protection Moulded IP67 (EN 60529)

Standard voltages DC (=) : 24V

coils		power ratings (◇)				operator ambient temperature range ⁽³⁾ (TS) (°C)	type ⁽²⁾
power ranges	voltages (V)	inrush ~	holding ~	hot/cold =			
		~ =	(VA)	(VA) (W)	(W)		
LP2	- 24	-	-	-	1,15 / 1,35	-25 to +60	01-02-03

⁽²⁾ Refer to the dimensional drawings on the following page. ⁽³⁾ For joinable subbase mounting, see pages suivantes.

SPECIFICATIONS

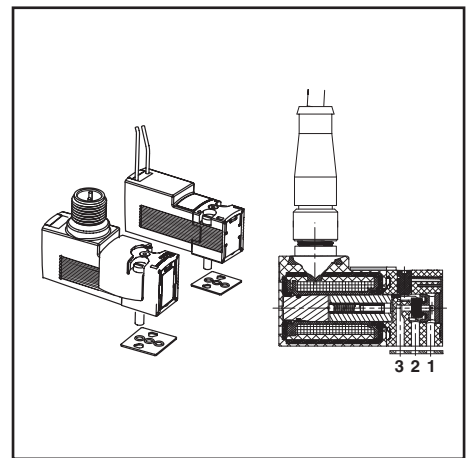
orifice size (mm)	flow at 6 bar l/min (ANR)		coefficient Kv		operating pressure differential (bar)		power ranges	basic catalogue number		
	1 → 2	2 → 3	1 → 2	2 → 3	min.	max. (PS)		impulse	manual operator	maintained
NC - Normally closed, connection M12 + LED and protection										
0,6	11	20	0,11	0,26	0	10	LP2	30212109		30212110
0,8	17	28	0,22	0,35	0	8	LP2	30212112		30212113
1,1	32	51	0,35	0,50	0	5	LP2	30212118		30212119
1,5	39	53	0,50	0,56	0	3	LP2	30212124		30212125
NC - Normally closed, cable ends + LED and protection										
0,6	11	20	0,11	0,26	0	10	LP2	30213109		30213110
0,8	17	28	0,22	0,35	0	8	LP2	30213112		30213113
1,1	32	51	0,35	0,50	0	5	LP2	30213118		30213119
1,5	39	53	0,50	0,56	0	3	LP2	30213124		30213125

When ordering:

	M12	cable
with connector	--D	⊗
without connector	--P	⊗
complete	⊗	--D

to be inserted after the basic catalogue number

Examples: • M12 with connector : **30212109--D**
 • M12 without connector : **30212109--P**
 • cable ends : **30213109--D**



(◇) Nominal power ratings of standard versions (with LED indicator and electrical protection)

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OPTIONS AND ACCESSORIES

- Seals and disc made of FPM (fluoroelastomer)
- Versions without manual operator, NO (Normally Open), U (Universal) and Uv (Universal vacuum): contact us
- Version with pneumatic-electric interface
- Straight M12 connector:
 - with 5 m cable length: catalogue number **88130212**
- Explosionproof enclosures for use in zones 0/20-1/21-2/22, categories 1-2-3 to ATEX-Directive 2014/34/EU (see "Explosionproof solenoids" section)

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valve supplied with mounting screws and mounting pad seal(s)
- Installation/maintenance instructions are included with each valve

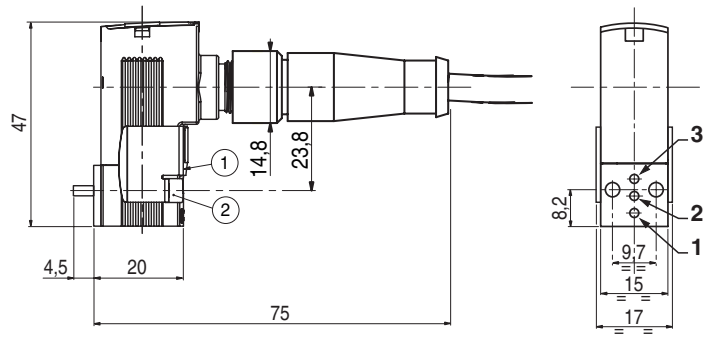
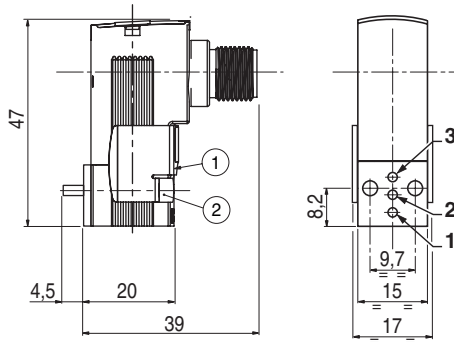
DIMENSIONS (mm), WEIGHT (kg)



TYPE 01
IEC 335
Connection M12
IP67



TYPE 02
IEC 335 /
Straight M12 connector, 5 m cable length
IP67



- ① Manual operator location.
- ② 2 mounting screw M3 x 20

weight		
M12 ⁽¹⁾	⁽²⁾	cable ends
0,049	0,288	0,040

⁽¹⁾ Without connector

⁽²⁾ With connector

function	connection		
	1	2	3
NC	P	O	E

P: Pressure

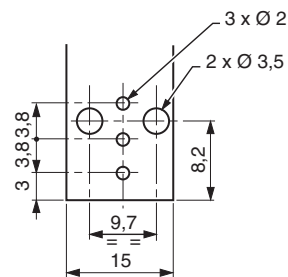
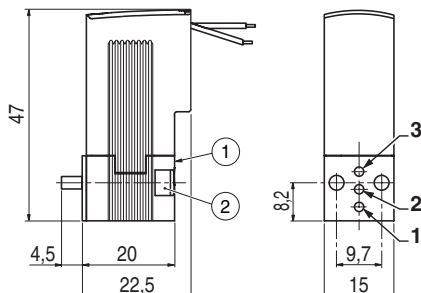
E: Exhaust

O: Outlet

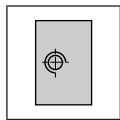


TYPE 03
IEC 335
Cable ends 0,3 m length
IP67

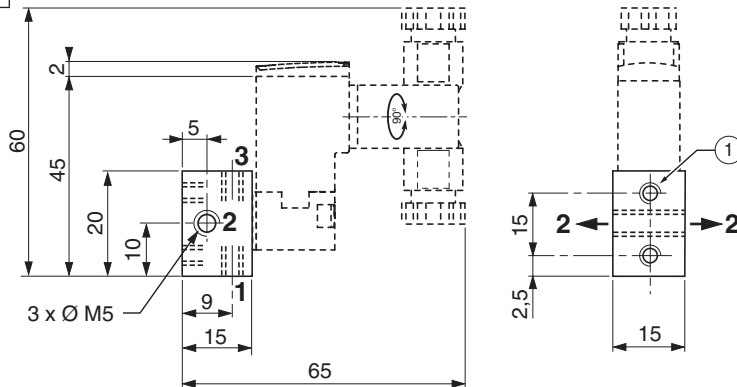
Subbase mounting surface: ISO 15218
(CNOMO E06.36.120N, size 15)



DIMENSIONS (mm), WEIGHT (kg)



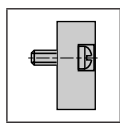
Single subbase Aluminium or brass



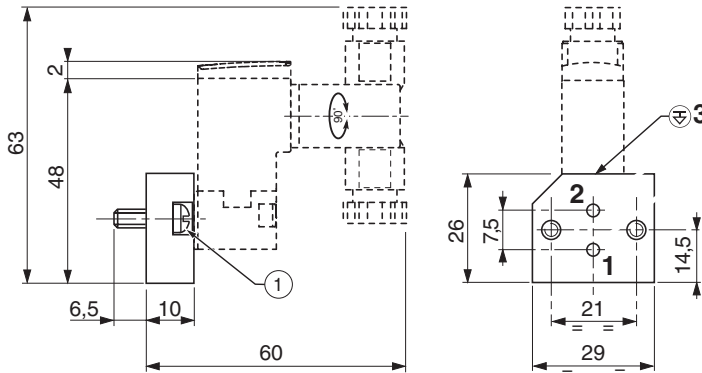
- ① Mounting: 2 holes M3, depth 4,5
- Orifice (2) can be connected on the left or on the right of the subbase.

material	catalogue number	weight ⁽¹⁾
aluminium	88263002	0,011
brass	30300001	0,034

⁽¹⁾ subbase alone



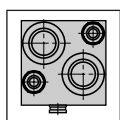
Adapter CNOMO size 30 (only for NC version) Aluminium



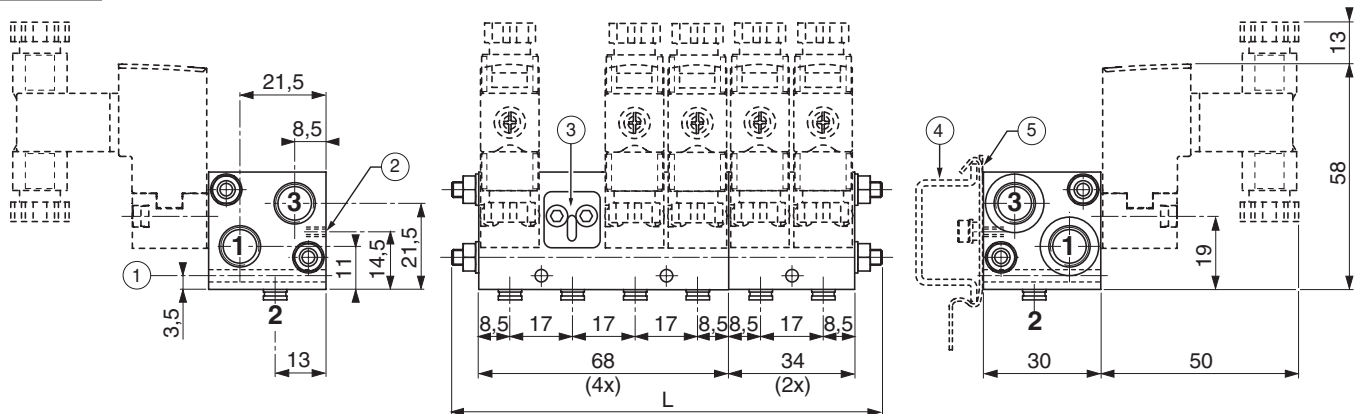
- ① Mounting: 2 screws M4 x 10 (supplied)

catalogue number	weight ⁽²⁾
88263001	0,018

⁽²⁾ adapter alone



Joinable subbases Aluminium



Ports 1 and 3: G1/8

Port 2: coupling for 4mm OD tube

- ① Fixing hole \varnothing 3,2 (2 for 4x ; 1 for 2x)
- ② Fixing hole M3, depth 8 (2 for 4x ; 1 for 2x)
- ③ Mating surface blanking plates (option)
- ④ TS35 DIN rail (not supplied)
- ⑤ Clip for DIN rail mounting (option)

catalogue number	x	subbases	L	weight ⁽³⁾
35500564	2	2x	-	0,076
35500565	4	4x	-	0,148
35500566	6	4x + 2x	114	0,236
35500567	8	4x + 4x	148	0,313
35500568	10	4x + 4x + 2x	182	0,389
35500569	12	4x + 4x + 4x	216	0,466

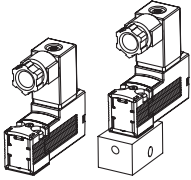
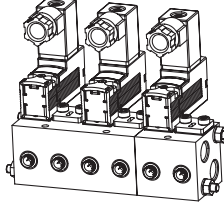
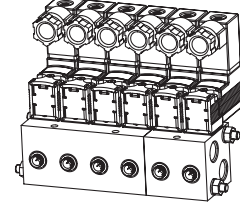
⁽³⁾ subbases alone
x = place for mini-solenoid valves.
2 plugs R1/8 supplied.

All leaflets are available on: www.asco.com

OPTIONS AND ACCESSORIES

- Additional subbase with 2 places (with seals): catalogue number **35500570**
- 2 tie-rods + nuts for a subbase with:
 4 places: catalogue number **88100752**
 6 places: catalogue number **88100753**
 8 places: catalogue number **88100754**
 10 places: catalogue number **88100755**
 12 places: catalogue number **88100756**
- Mounting kit for DIN rail (2 clips + screws + washers): catalogue number **88100757**
- Mating surface blanking plate: catalogue number **88130203**

AMBIENT TEMPERATURE RANGES

current type	power range	power coil		version			
		inrush/holding (VA) ~	hot/cold (W) =				
DC (=)	LP1 ⁽¹⁾	-	0,5/0,55	standard	-10°C ; +50°C		-10°C ; +50°C
	LP2 ⁽¹⁾	-	1/1,2	standard	-25°C ; +60°C		-25°C ; +60°C
		-	1,15/1,35	LED + protection			-25°C ; +40°C
	LP3 ⁽²⁾	-	2/2,65	standard	-25°C ; +50°C		-25°C ; +40°C
-		2,15/2,8	LED + protection	-25°C ; +40°C		-	
AC (~)	LP2 ⁽²⁾	1,4/1,2	-	standard	-25°C ; +60°C		-25°C ; +40°C
		1,8/1,6	-	LED + protection			-
	LP3 ⁽²⁾	2,1/1,6	-	standard	-25°C ; +60°C		-25°C ; +40°C
		2,5/2	-	LED + protection	-25°C ; +50°C		-

⁽¹⁾ Voltage: -15% / +20%

⁽²⁾ Voltage: -15% / +10%

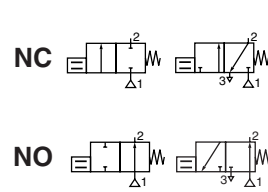


MINI PIEZO-VALVES PIEZOTRONIC

direct operated

ISO 15218 (CNOMO, size 15) interface

pad mounting body, M5, G1/8 or instant fittings subbase



2/2-3/2
Series
630

SPECIFICATIONS

FLUIDS	: air or neutral gas, filtered at 25 µm, condensate free dew point -10°C
PRESSURE	: 0 to 4 or 8 bar
MAX. ALLOWABLE PRESSURE (MAP)	: 8 bar
FLUID TEMPERATURE	: 0°C to +60° C
AMBIENT TEMPERATURE	: 0°C to +60° C
STORAGE TEMPERATURE	: -40°C to +60°C
BASE	: ISO 15218 (CNOMO E06.36.120N, size15) or ISO 15218 (CNOMO E06.05.80, size 30) with adapter
MOUNTING	: on subbases ØM5, G1/8 or instant fittings
SERVICE LIFE	: > 10 ⁹ cycles at 6 bar
MOUNTING POSITION	: all

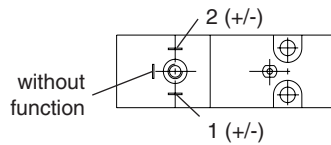
CONSTRUCTION

Body	: synthetic material (PPS)
Internal parts	: piezo ceramics
Sealings	: nitrile (NBR)
Manual override	: without or impulse type
Subbase	: brass, polyamide, zinc diecast

ELECTRICAL CONNECTION

version with pins

Non polarized solenoid valve



Version with wires

Non polarized solenoid valve

ELECTRICAL CHARACTERISTICS

Voltage (Maximum ripple : 10 %)	Power consumption at 24 V		Response time	Protection degree	Electrical connection
	inrush	hold			
24 to 70 V AC/DC ±10%	0,6 W	0,007 W	50 ms (DC) 70 ms (AC)	IP 65	Spade plug size 15 connector, DIN 43650, 9,4 mm, industry standard B, rotatable by 90°, Option : with wires, length 1 m

Switching current = 25 mA/30ms

SPECIFICATIONS

Symbols Functions	Flow at 6 bar l/min (ANR)	Coefficient Kv	Allowable differential pressure (Δ p in bar)		(M)	catalogue number	
			min.	max.		PIEZOTRONIC with pins with standard connector	PIEZOTRONIC with 2 wires, 1m long
2/2 NC	6	0,086	0	8	X ▼	63000065	63000015
						6,5 ⁽¹⁾	0,12
2/2 NO	6	0,086	0	8	X ▼	63000066	63000016
						6,5 ⁽¹⁾	0,12
3/2 NC	7	0,10	2	8	X ▼	63000063 63000069	63000013 63000019
3/2 NO	6	0,086	2	8	X ▼	63000064 63000070	63000014 63000020

(M) Manual operator: X : without ▼ : Impulse

(1) Flow at 4 bar in l/min (ANR)

SUBBASES: Single subbase with lateral connection Ø M5 - cat no.: **88263002**

Single subbase - connection G1/8 - cat no.: **35300047**

Joinable subbase - connection G1/8 - cat no.: **35300048**

OPTION : Minivalve operated, intrinsically safe Ex ia, 12V - 24V DC

ACCESSORIES

DESCRIPTION	catalogue number
Visual indicator LED (Caution, consumption 0,25W and voltage 24V max.)	88130401
Plug size 15 with 2 m cable	88143567
Plug size 15 with built-in visual indicator (LED), with 2 m cable 24V =/~ max.	88143580
Adapter for mounting PIEZOTRONIC on base ISO 15218 (CNOMO E06.05.80, size 30)	88263001

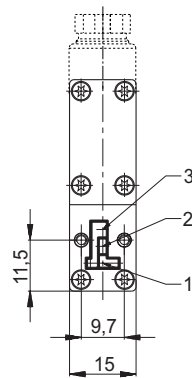
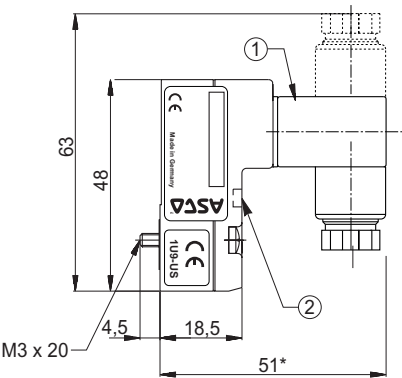
All leaflets are available on: www.asco.com

Solenoid valves (2/2 - 3/2) - 21

DIMENSIONS AND WEIGHTS

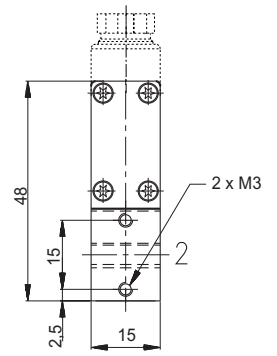
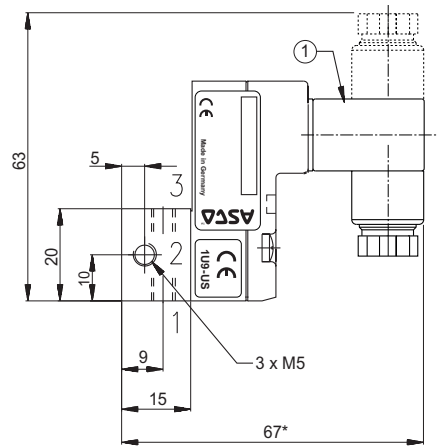
MINI PIEZO-VALVE WITH STANDARD CONNECTOR

Weight: 24 g without connector
34 g with connector



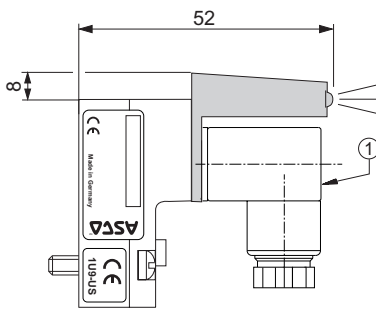
MINI PIEZO-VALVE ON SINGLE SUBBASE **88263002**

Weight: 45 g



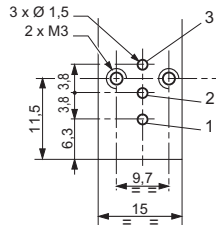
ASSEMBLY WITH LED INDICATOR

(accessory, rotatable x180°)



MOUNTING FACE

Subbase for mini piezo-valve
ISO 15218 (CNOMO
E06.36.120N, size15)



Single subbase connection :

Outlet (2) can be connected on the left or on the right of subbase ; closed unused port with a Ø M5 plug (supplied).

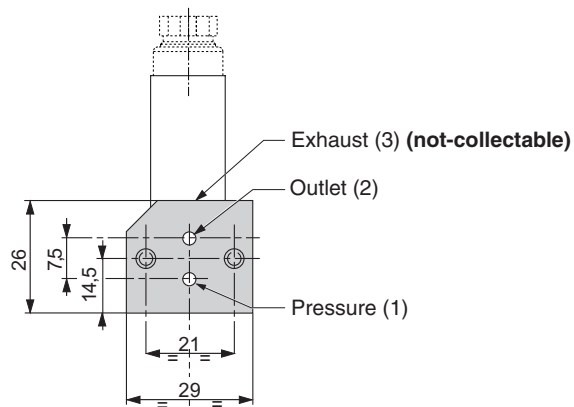
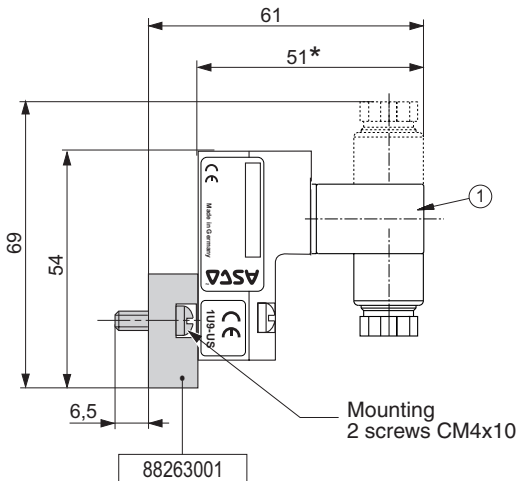
① Connector size 15 rotatable by 90°

② Impulse manual operator

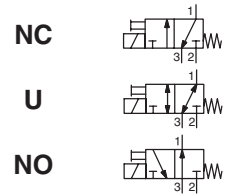
(*) + 10 mm for clearance

MINI VALVE + Intermediate subbase (**Adapter CNOMO size 30 : cat no.: 88263001**)

Total weight: 53 g



* + 10 mm for clearance



FEATURES

- Compact design for the control of single-acting actuators or filling and draining cycles
- Wide range of flow and pressure ratings
- Quick disassembly of core tube for easy maintenance of internal parts
- Standard disc seal made of FPM suitable for a wide range of operating temperatures and compatible with many fluids
- Standard manual operator allows an easy installation
- AC/DC interchangeability of the solenoid without disassembly of the valve
- Compliance with UL and CSA standards (coil 4/6,9 W)
- Compact and low weight valve
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure See «SPECIFICATIONS» [1 bar =100 kPa]
Maximum viscosity 40 cSt (mm²/s)
Response time 5 - 10 ms

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, water, oil	-10°C to +100°C	FPM (fluoroelastomer)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

	Brass body	Stainless steel body
Body	Brass	AISI 316
Core tube	Stainless steel	Stainless steel
Core and plugnut	Stainless steel	Stainless steel
Springs	Stainless steel	Stainless steel
Seat	Brass	Stainless steel
Seals	FPM	FPM
Disc	FPM	FPM
Shading coil	Copper	Copper

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connector Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)
Connector specification DIN 43650, 11 mm, industry standard B (type 01) or ISO 4400 / EN 175301-803, form A (type 02) IEC 335
Electrical safety Moulded IP65 (EN 60529)
Electrical enclosure protection DC (=) : 24V - 48V
Standard voltages AC (~) : 24V - 48V - 115V - 230V / 50 Hz
 (Other voltages and 60 Hz on request)

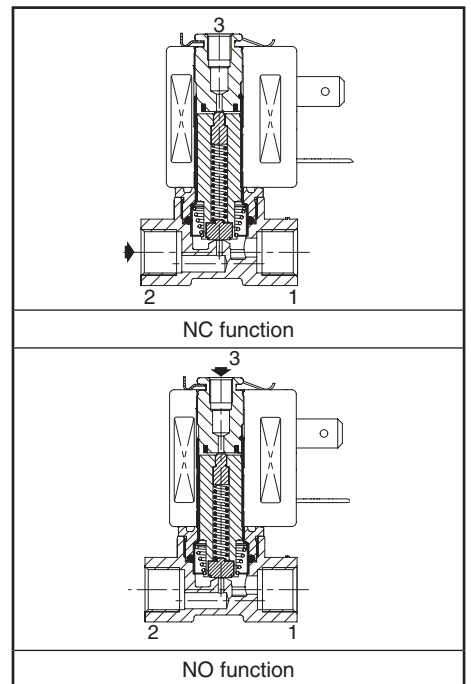
prefix option	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type ⁽¹⁾
	inrush ~		holding ~			~	=	
	(VA)	(VA)	(W)	(W)		230 V/50 Hz	24 V DC	
SC	12	6	4	5 / 6,9	-10 to +60	400127-197	400127-142	01
	15	7	5	4 / 5	-10 to +60	400727-117	400727-185	02

⁽¹⁾ Refer to the dimensional drawings on the following page.

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv				operating pressure differential (bar)				power coil (W)		catalogue number		options	
		2→1		3→1		min.	max. (PS)		~	=	brass	stainless steel	EPDM		
		(m ³ /h)	(l/min)	(m ³ /h)	(l/min)		air, water, oil (*)	=							
G	(mm)	(m ³ /h)	(l/min)	(m ³ /h)	(l/min)		~	=	~	=	~/=	~/=			
NC - Normally closed															
1/8 ⁽²⁾	1,2	0,05	0,8	0,05	0,8	0	15	15	4	6,9	SCG356B001VMS	SCG356B013VMS	E	-	-
	1,6	0,08	1,33	0,05	0,8	0	10	10	4	6,9	SCG356B002VMS	SCG356B014VMS	E	-	-
	2,0	0,1	1,66	0,05	0,8	0	5	5	4	6,9	SCG356B003VMS	SCG356B015VMS	E	-	-
	2,4	0,13	2,1	0,05	0,8	0	4	4	4	6,9	SCG356B004VMS	SCG356B016VMS	E	-	-
1/4 ⁽²⁾	1,6	0,08	1,33	0,05	0,8	0	10	10	5	5	SCG356B466VMS	SCG356B434VMS	-	-	-
	2,4	0,16	2,67	0,05	0,8	0	4	4	5	5	SCG356B470VMS	SCG356B436VMS	-	-	-
U - Universal															
1/8 ⁽²⁾	1,6	0,06	1	0,05	0,8	0	4,5	4,5	4	6,9	SCG356B010VMS	SCG356B022VMS	E	-	-
	2,0	0,08	1,33	0,05	0,8	0	3	3	4	6,9	SCG356B011VMS	SCG356B023VMS	E	-	-
	2,4	0,09	1,5	0,05	0,8	0	2	2	4	6,9	SCG356B012VMS	SCG356B024VMS	E	-	-
NO - Normally open															
1/8 ⁽²⁾	1,6	0,096	1,6	0,05	0,8	0	8,5	8,5	4	6,9	SCG356B006VMS	SCG356B018VMS	E	-	-

⁽²⁾ Pipe size port 3: M5 (Orifice size = 1,2 mm).



OPTIONS

- Valves can also be supplied with EPDM (ethylene-propylene) seals and discs. Use the appropriate optional suffix letter for identification (1/8 version only)
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see "Explosionproof solenoids" section)
- Flying leads coil, use prefix L (e.g.: LG356B001VMS) (4 W/6,9 W coil only)
- Oxygen service with seals and disc in FPM, suffix NV, example: SCG356B001NVMS
- Solenoid valves integrated on manifold, orifice sizes 1,2 - 1,6 - 2 - 2,4 mm (See V591)
- French sanitary conformity approval ACS for potable water applications, suffix: FW (1/8 NC only)
- Without manual operator, on request
- Other pipe connections are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valves have 2 mounting holes in body
- Pipe connection identifier is G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

ORDERING EXAMPLES:

SC	G	356	B 001	VMS	230V / 50 Hz
SC	G	356	B 002	EMS	115V / 50 Hz
SC	G	356	B 014	NVMS	24V / DC
SC	G	356	B 001	FWMS	24V / DC
SC	G	356	B 456	VMS	230V / 50 Hz
SC	G	356	B 006	VMS	230V / 50 Hz

prefix — SC
 pipe thread — G
 basic number — 356
 B — basic number
 suffix — VMS, EMS, NVMS, FWMS
 voltage — 230V / 50 Hz, 115V / 50 Hz, 24V / DC

DIMENSIONS (mm), WEIGHT (kg)



TYPE 01

Prefix "SC" Solenoid
Epoxy moulded
IEC 335 / DIN 43650
IP65

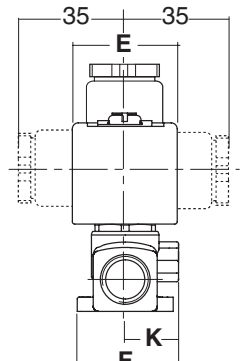
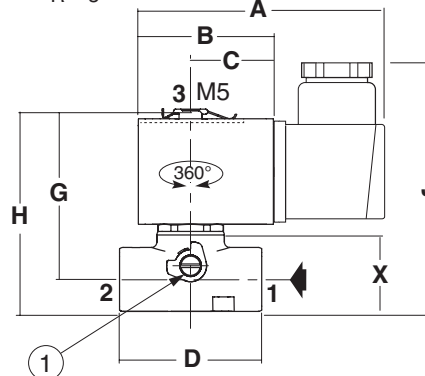
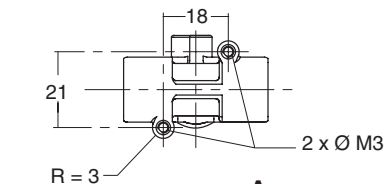
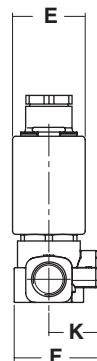
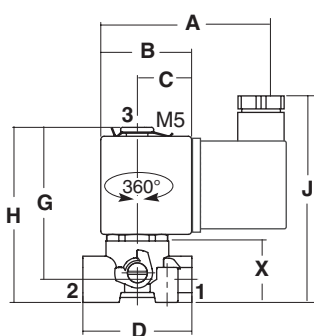
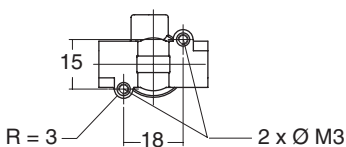
NC/NO/U (1/8): All 1/8 catalogue numbers



TYPE 02

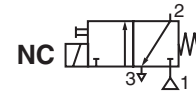
Prefix "SC" Solenoid
Epoxy moulded
IEC 335 / ISO 4400
IP65

NC (1/4): SCG356B434VMS/436VMS/466VMS/470VMS/471V/472V



type	prefix option	pipe size	A	B	C	D	E	F	G	H	J	K	X	weight ⁽¹⁾	
														brass	stainless steel
01	SC	1/8	60,5	27,5	16,5	33	22	25,5	46	53	69	15	18,6	0,156	0,138
02	SC	1/4	76	38	23,3	40	29,7	28,5	48	57	79	15	23,4	0,232	0,229

⁽¹⁾ including coil and connector.



FEATURES

Compact solenoid valve designed for direct mounting on an actuator (single-acting cylinders, valves etc.) with the following advantages:

- Easy to connect
- Shorter response time
- Installation simplified due to 360° rotatable supply port (1), solenoid valve body, coil and connector
- Reduced envelope
- Built-in exhaust reducer
- Auxiliary manual operator
- Accepts a range of size 22 solenoid heads
 - IP65 standard (2,5 W)
 - M12 connection, integrated Led and protection
 - Ex m for potentially explosive atmospheres

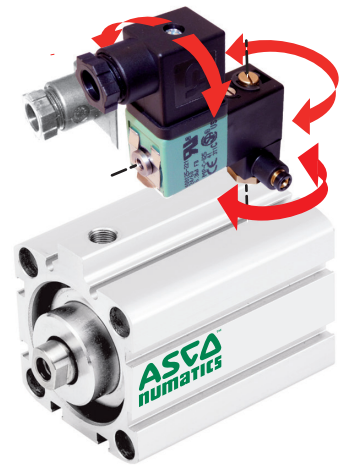


GENERAL

Fluid	Air or neutral gaz, filtered, lubricated or not
Operating pressure	0 to 10 bar
Maximum allowable pressure	16 bar
Fluid temperature	-10°C to +60°C
Ambient temperature	-10°C to +60°C
Flow (Qv at 6 bar)	See "specifications"
Response time	10 - 20 ms (on air ΔP = 6 bar)
Base	ISO 15218 (CNOMO 06.05.80/NF E 49066, size 30)

CONSTRUCTION

Body	PA + FV (glass filled polyamide 6/6)
Pad mounting body	Ports 1 and 2 on subbase, port 3 tapped M5
Exhaust	M5 female
Seals	NBR (nitrile)
Electrical equipment	Conforming to NF C79300 standard



ELECTRICAL CHARACTERISTICS

coil type	voltages	consumption		insulation class	protection degree	electrical connection
		inrush	hold			
size 22 with pins	~ 24V-48V-115V-230V/50Hz	6VA	3,5VA (2,5W)	F	IP 65	spade plug size 22 connector, DIN 43650, 11 mm industry standard B
	= 24V-48V	2,5W/3W (hot/cold)				
M12 with Led and protection	= 24V	2,5W/3W (hot/cold)		F	IP 65	M12 connection, 3 pins CNOMO E03.62.520.N

SPECIFICATIONS

orifice size (mm)	flow				allowable differential pressure (bar)		(M)	exhaust reducer on port 3	catalogue number		
	at 6 bar l/min (ANR)		coefficient Kv		min.	max.			with DIN connector	without DIN connector	with M12 connection
	1 → 2	2 → 3	1 → 2	2 → 3							
1,2	34	47	0,5	0,7	0	10	●	without	18900032	18900033	18900076
								with	18900047	18900043	18900077

(M) Manual operator : ● maintained

OPTIONS (overleaf)

OPTIONS

SOLENOID VALVE WITH COIL FOR DIN CONNECTOR

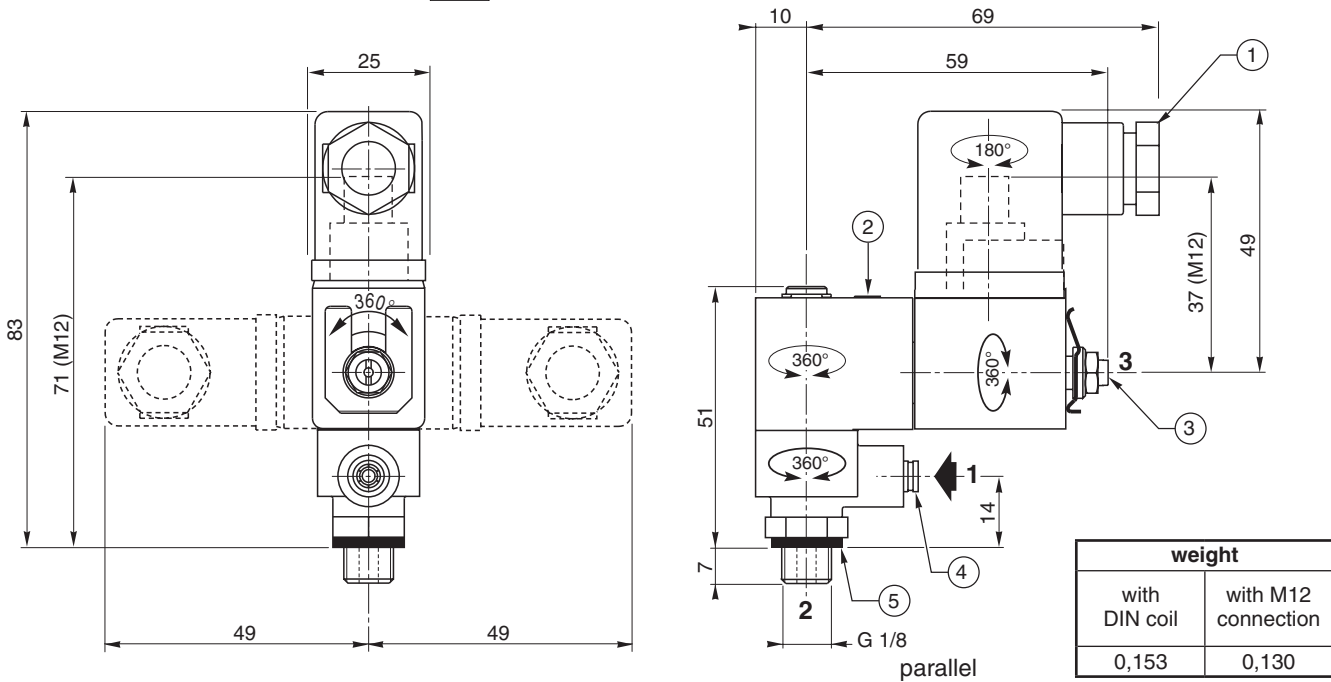
- Others voltages or 60 Hz frequency, on request
- Solenoid head complying with European standards for explosive atmospheres Ex m (PV), zones 1-21 catalogue numbers: **PV18901032** or **PV18901047**
- Solenoid head for dusty explosive atmospheres (SG), zone 22
- Solenoid head "CSA" approved
- Conformity to standard "UL", catalogue number: **612100**
- Exhaust port regulator ØM5 adaptable on port 3 - catalogue number: **34600380**
- Connector with cable outlet, 2m long: **88122413**
- Solenoid valve with built-in visual indicator and protection:

catalogue number solenoid valve without connector (see above)	+	catalogue number connector with built-in visual indicator and VDR protection			
		24V (~/=)	48V (~/=)	115V (~/=)	230V (~/=)
		88122405	88122406	88122407	88122408

SOLENOID VALVE WITH M12 CONNECTION COIL

- Exhaust port regulator ØM5 adaptable on port 3 - catalogue number: **34600380**
- Straight M12 connector with 5 female contacts, Ø4 to 6mm cable entry, catalogue number: **88100304**
- Straight M12 connector with 5 female contacts, Ø6 to 8mm cable entry, catalogue number: **88100256**
- Straight M12 connector with 5 female contacts, cable length 5m, catalogue number: **88130212**
- Right-angle M12 connector with 5 female contacts, cable length 5m, catalogue number: **88130213**

DIMENSIONS (mm), WEIGHTS (kg)



weight	
with DIN coil	with M12 connection
0,153	0,130

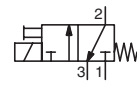
- ① Connector : size 22 rotatable by 180°
- ② Manual operator (maintained)
- ③ Adjustable exhaust flow reducer
- ④ Connection to pressure supply with quick-disconnect coupling for 4mm OD tube (coupling rotatable through 360° around Port 2)
- ⑤ Seal



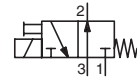
SOLENOID VALVES

ISO 15218 (CNOMO, size 30) interface
direct operated, pad mounting body
subbases for instant fittings or 1/8 thread

NC



NO



3/2
Series
189

FEATURES

- CNOMO pad-mount version for valve piloting applications
- Compact size and low weight for easy installation on single or joinable subbases
- AC/DC interchangeability of the solenoid operator without any need for disassembly of the valve
- Version with M12 connection with visual indication and peak voltage suppression conforming to "UL" standards
- Flexible installation on joinable subbases
- Manual operator as standard
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure See "SPECIFICATIONS" [1 bar = 100 kPa]
Maximum allowable pressure 16 bar
Response time 5 - 10 ms

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas	- 10°C to + 60°C	NBR (nitrile)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body	PA, glass-filled
Core tube	Stainless steel
Core and plugnut	Stainless steel
Internal parts, springs	Stainless steel
Seals	NBR
Shading coil	Copper

CONSTRUCTION

Mounting pad ISO 15218 (CNOMO 06-05-80 / NF E 49066, size 30)

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connector Spade plug (cable Ø 6-8 mm) or M12
Connector specification DIN 43650, 11 mm, industry standard B or CNOMO E03.62.520.N (M12)

Electrical safety

Electrical enclosure protection Moulded IP65 (EN 60529)
Standard voltages DC (=): 24V - 48V (M12: 24V + LED and protection)
AC (~): 24V - 48V - 115V - 230V / 50 Hz

-	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type ⁽¹⁾
	inrush	holding	hot/cold			~	=	
	(VA)	(VA)	(W)	(W)		230 V/50 Hz	24 V DC	
-	6	3,5	2,5	2,5 / 3	-10 to + 60	43004422	43004166	01
-	-	-	-	-	-	-	43005523	06

⁽¹⁾ Refer to the dimensional drawings on the following page.

SPECIFICATIONS

pipe size	orifice size		flow at 6 bar l/min (ANR)		flow coefficient Kv		operating pressure differential (bar)			power coil (W)		catalogue number		
	1 → 2	2 → 3	1 → 2	2 → 3	1 → 2	2 → 3	min.	max. (PS)		~	=	with maintained manual operator		
	(mm)	(mm)	(l/min)	(l/min)	(l/min)	(l/min)		air (*)	~			=	with connector	without connector
NC - Normally closed														
pad mounting ⁽²⁾	1,2	1,5	50	56	0,7	0,8	0	10	10	2,5	3	18900001	18900002	-
										-	3	-	-	18900073
NO - Normally open														
pad mounting ⁽²⁾	1,2	1,5	40	50	0,7	0,6	0	6 ⁽⁵⁾	6 ⁽⁵⁾	2,5	3	18900010	18900011	-
										-	3	-	-	18900075

EMBASES

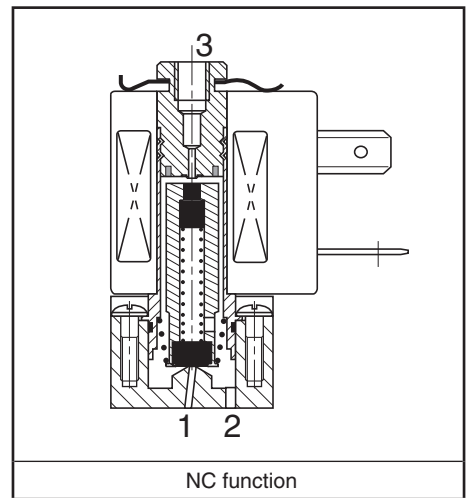
pipe size	designation	composition	catalogue number
6/6 polyamide subbases			
instant fittings ⁽³⁾	single subbase (instant fittings OD 4 mm)		35300069
	joinable subbase (instant fittings OD 4 mm)		35300070
	set of 2 joinable end subbases, right-hand pressure intake, endpieces with instant fittings OD 6 mm		35300071
	set of 2 joinable end subbases, right-hand and/or left-hand pressure intake, endpieces with instant fittings OD 6 mm		35300072 ⁽⁴⁾
Zamak subbases			
G 1/8 ⁽³⁾	laterally-connected single subbase		35300047
tapped	laterally-connected joinable subbase		35300048

⁽²⁾ Port 3: M5.

⁽³⁾ These subbases can be mounted on omega rail to EN 50022 using 2 clips (clips sold in packs of 10, catalogue number: 33400036).

⁽⁴⁾ The equipment can be used for two different pressure intakes, supplied with one blanking plug to cover unused port.

⁽⁵⁾ 10 bar on request (with 5W/6,9W coil)



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OPTIONS

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see "Explosionproof solenoids" section): Ex mb (PV), **PV18901001** or **PV18901010** / Potentially explosive atmospheres (SG), zone 22
- Straight M12 connector (IP67 protection with connector correctly installed): with 5 m cable: catalogue number **88130212**
- Catalogue number (without connector) + connector catalogue number (with integrated LED indicator and electrical protection): 24 V (~/=), **88122405** - 48 V (~/=), **88122406** - 115 V (~), **88122407** - 230 V (~), **88122408**
- Compliance with "UL", "CSA" standards are available (UL: catalogue number **612100**)
- Right-angle M12 connector (IP67 protection with connector correctly installed), with 5 m cable: catalogue number **88130213**
- M5 flow control regulator to fit port 3, catalogue number: **34600380**
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Mounting on single or joinable subbases
- ATEX 2014/34/EU versions (options "SG" and "PV") can be installed on single (all versions) or joinable zinc diecast subbases
- Pipe connections 1/8 have standard thread according to ISO 228/1
- Installation/maintenance instructions are included with each valve

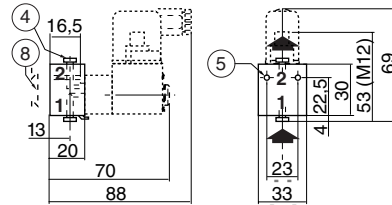
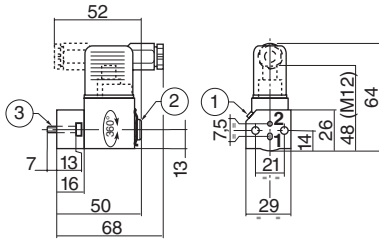
DIMENSIONS (mm), WEIGHT (kg)



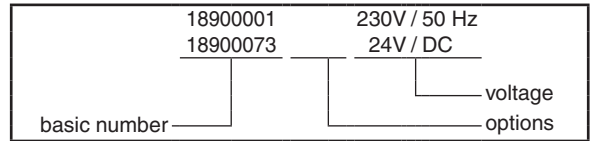
TYPE 01-06
Spade plug /M12
IEC 335 /
DIN 43650
E03.62.520.N, IP65
18900001/18900010/18900073/18900075



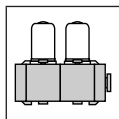
TYPE 02
Single instant fitting
subbase
Polyamide
35300069



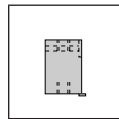
ORDERING EXAMPLES:



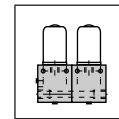
- 1 Manual operator location
- 2 Port 3: M5, depth 5,5 mm
- 3 Mounting: two CM4x20 screws
- 4 Instant-fitting connection for OD 4 mm tube
- 5 Mounting: two dia. 3,5 mm securing holes, dia. 6,5 mm counter-bores, depth 3,5 mm
- 6 Instant-fitting connection for OD 6 mm tube
- 7 Mounting: two dia. 4,5 mm securing holes
- 8 Adaptable clips
- 9 Subbase mounting hole, adapter



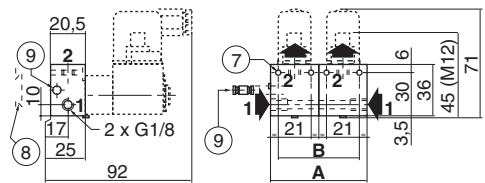
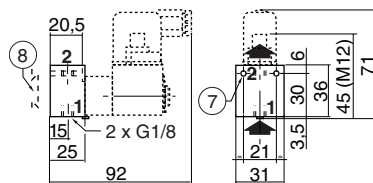
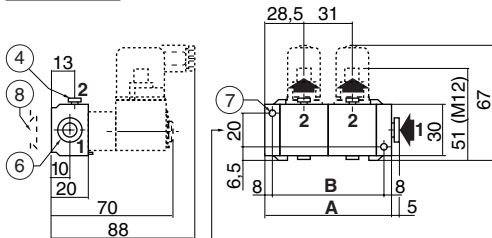
TYPE 03
Joinable instant fitting subbase
Polyamide
35300070
35300071 (set of 2)



TYPE 04
Single subbase
Zamak
35300047

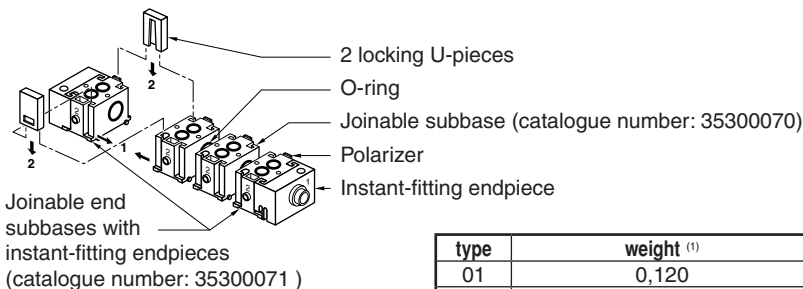


TYPE 05
Joinable subbase
Zamak
35300048



Right-hand pressure intake option or 2 different pressure intakes by procuring the set of two end subbases with endpieces (catalogue number: 35300072).

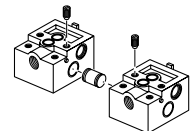
When mounted on DIN rail, it is recommended to use a securing clip on the end subbases as well as on the central subbase.



type	weight ⁽¹⁾
01	0,120
02	0,135
04	0,185
06	0,105

⁽¹⁾ including coil and connector.
(except M12 connection type 06)

Joinable subbases assembled with adapter locked by sunk set screws.
For DIN rail mounting: see type 03.



number of subbases	type 03		type 05	
	A	B	A	B
2	88	72	62	52
3	119	103	93	83
4	150	134	124	114
5	181	165	155	145
6	212	196	186	176
7	243	227	217	207
8	274	258	248	238

type	weight ⁽²⁾						
	number of subbases						
	2	3	4	5	6	7	8
03+01	0,295	0,430	0,565	0,700	0,835	0,970	1,105
03+06	0,265	0,385	0,505	0,625	0,745	0,865	0,985
05+01	0,400	0,600	0,800	1,000	1,200	1,400	1,600
05+06	0,370	0,555	0,740	0,925	1,110	1,295	1,480

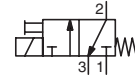
⁽²⁾ Including seals, set screws and joining unit.



SOLENOID VALVES

ISO 15218 (CNOMO, size 30) interface
direct operated, pad mounting body
subbases for instant fittings or 1/8 thread

NC



3/2
Series
190

FEATURES

- CNOMO pad-mount version for valve piloting applications
- Compact size and low weight for easy installation on single or joinable subbases
- AC/DC interchangeability of the solenoid operator without any need for disassembly of the valve
- Version with M12 connection with visual indication and peak voltage suppression conforming to "UL" standards
- Flexible installation on joinable subbases
- Manual operator as standard
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure See "SPECIFICATIONS" [1 bar = 100 kPa]
Maximum allowable pressure 16 bar
Response time 5 ms

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas	- 10°C to + 60°C	NBR (nitrile)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body	PA, glass-filled
Core tube	Stainless steel
Core and plugnut	Stainless steel
Internal parts, springs	Stainless steel
Seals	NBR
Shading coil	Copper

CONSTRUCTION

Mounting pad ISO 15218 (CNOMO 06-05-80 / NF E 49066, size 30)

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connector Spade plug (cable Ø 6-10 mm) or M12
Connector specification ISO 4400 / EN 175301-803, form A or CNOMO E03.62.520.N (M12)

Electrical safety IEC 335
Electrical enclosure protection Moulded IP65 (EN 60529)
Standard voltages DC (=): 24V - 48V (M12: 24V + LED and protection)
AC (~): 24V - 48V - 115V - 230V / 50 Hz
(Other voltages and 60 Hz on request)

-	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type ⁽¹⁾
	inrush	holding	hot/cold	~		=		
	(VA)	(VA)	(W)				(W)	
-	9	4	3	3 / 3	-10 to + 60	230 V/50 Hz	24 V DC	01
-	-	-	-	-	-	43004472	43004473	06
-	-	-	-	-	-	-	43005525	06

⁽¹⁾ Refer to the dimensional drawings on the following page.

SPECIFICATIONS

pipe size	orifice size		flow at 6 bar		flow coefficient		operating pressure differential (bar)			power coil (W)		catalogue number							
	1 → 2		2 → 3		1 → 2		2 → 3		min.	max. (PS)		without man. operator	maintained man. operator	impulse man. operator	button man. operator	with connector	without connector	M12 connection	
	(mm)	(mm)	(l/min)	(ANR)	(l/min)	(l/min)	air (*)	~		=	~								=
NC - Normally closed																			
pad mounting ⁽²⁾	1,6	1,5	70	84	1	1,2	0	10	10	3	3	×	●	▼	■	19000005	19000013	19000043	
																19000006	19000014	19000044	
																19000017	19000018	19000046	
																19000008	19000016	19000045	

SUBBASES

pipe size	designation	composition	catalogue number
6/6 polyamide subbases			
instant fittings ⁽³⁾	single subbase (instant fittings OD 4 mm)		35300069
	joinable subbase (instant fittings OD 4 mm)		35300070
	set of 2 joinable end subbases, right-hand pressure intake, endpieces with instant fittings OD 6 mm		35300071
	set of 2 joinable end subbases, right-hand and/or left-hand pressure intake, endpieces with instant fittings OD 6 mm		35300072 ⁽⁴⁾
Zamak subbases			
G 1/8 ⁽³⁾ tapped	laterally-connected single subbase		35300047
	laterally-connected joinable subbase		35300048

⁽²⁾ Port 3: M5.

⁽³⁾ These subbases can be mounted on omega rail to EN 50022 using 2 clips (clips sold in packs of 10, catalogue number: 33400036).

⁽⁴⁾ The equipment can be used for two different pressure intakes, supplied with one blanking plug to cover unused port.

All leaflets are available on: www.asco.com

Solenoid valves (3/2) - 29

OPTIONS

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see "Explosionproof solenoids" section): Ex mb (PV), PV19000005/6/17/8 / Potentially explosive atmospheres (SG), zone 22
- Straight M12 connector (IP67 protection with connector correctly installed): with 5 m cable: catalogue number **88130212**
- Right-angle M12 connector (IP67 protection with connector correctly installed), with 5 m cable: catalogue number **88130213**
- Catalogue number (without connector) + connector catalogue number (with integrated LED indicator and electrical protection): 24 V (~/-), **88122603** - 48 V (~/-), **88122604** - 115 V (~), **88122605** - 230 V (~), **88122608**
- M5 flow control regulator to fit port 3, catalogue number: **34600380**
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

INSTALLATION

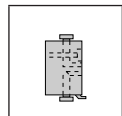
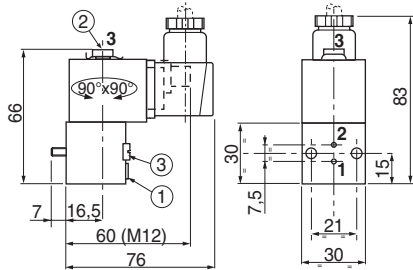
- The solenoid valves can be mounted in any position without affecting operation
- Mounting on single or joinable subbases
- ATEX 2014/34/EU versions (options "SG" and "PV") can be installed on single (all versions) or joinable zinc diecast subbases
- Pipe connections 1/8 have standard thread according to ISO 228/1
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg)



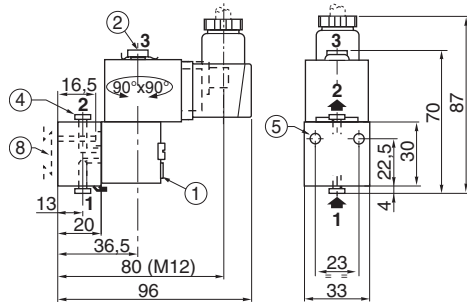
TYPE 01-06
Spade plug /M12
IEC 335 /
EN 175301-803 (11 mm)
E03.62.520.N, IP65

19000005 to 19000045



TYPE 02
Single instant fitting
subbase
Polyamide

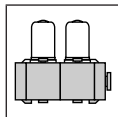
35300069



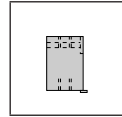
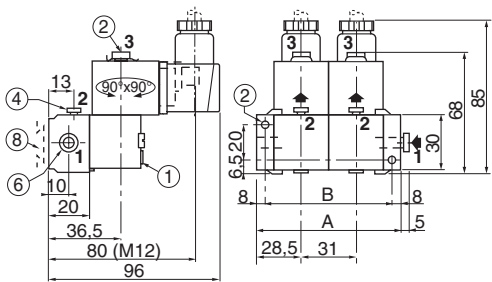
ORDERING EXAMPLES:

19000006	230V / 50 Hz
19000044	24V / DC
basic number	voltage options

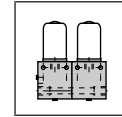
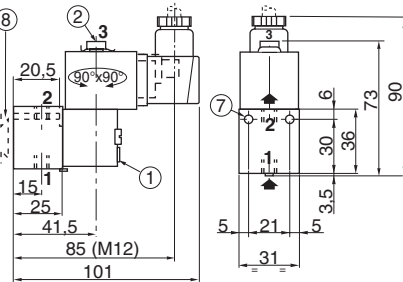
- ① Manual operator location
- ② Port 3: M5, depth 5,5 mm
- ③ Mounting: two CM4 x 33,5 screws
- ④ Instant-fitting connection for OD 4 mm tube
- ⑤ Mounting: two dia. 3,5 mm securing holes, dia. 6,5 mm counter-bores, depth 3,5 mm
- ⑥ Instant-fitting connection for OD 6 mm tube
- ⑦ Mounting: two dia. 4,5 mm securing holes
- ⑧ Adaptable clips
- ⑨ Subbase mounting hole, adapter



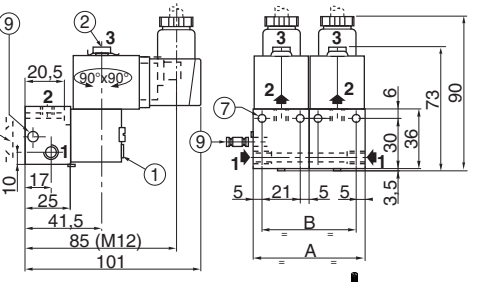
TYPE 03
Joinable instant fitting subbase
Polyamide
35300070
35300071 (set of 2)



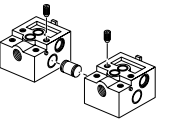
TYPE 04
Single subbase
Zamak
35300047



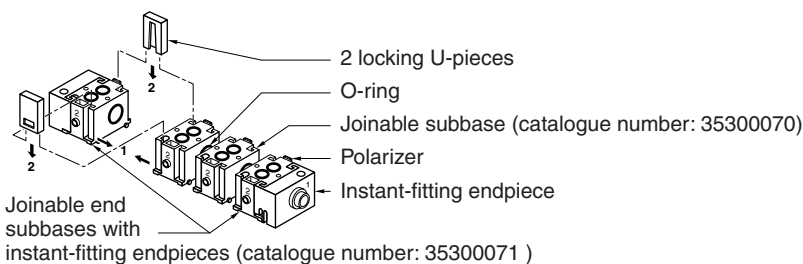
TYPE 05
Joinable subbase
Zamak
35300048



Joinable subbases assembled with adapter locked by sunk set screws. For DIN rail mounting: see type 03.



Right-hand pressure intake option or 2 different pressure intakes by procuring the set of two end subbases with endpieces (catalogue number: 35300072). When mounted on DIN rail, it is recommended to use a securing clip on the end subbases as well as on the central subbase.



type	weight ⁽¹⁾
01	0,180
02	0,135
04	0,185
06	0,170

⁽¹⁾ including coil and connector.
(except M12 connection type 06)

number of subbases	type 03		type 05	
	A	B	A	B
2	88	72	62	52
3	119	103	93	83
4	150	134	124	114
5	181	165	155	145
6	212	196	186	176
7	243	227	217	207
8	274	258	248	238

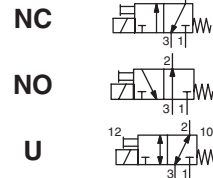
type	weight ⁽²⁾							
	number of subbases							
	2	3	4	5	6	7	8	
03+01	0,415	0,610	0,805	1,000	1,195	1,390	1,585	
03+06	0,395	0,580	0,765	0,950	1,135	1,320	1,505	
05+01	0,490	0,735	0,980	1,225	1,470	1,715	1,960	
05+06	0,470	0,705	0,940	1,175	1,410	1,645	1,880	

⁽²⁾ Including seals, set screws and joining unit.



SOLENOID VALVES

ISO 15218 (CNOMO, size 30) interface
 direct operated, pad mounting body
 instant fittings or G1/8 - G1/4 subbases



3/2
 Series
192

FEATURES

- CNOMO pad-mount version for valve piloting applications
- Compact size and low weight for easy installation on single or joinable subbases
- AC/DC interchangeability of the solenoid operator without any need for disassembly of the valve
- Version with M12 connection with visual indication and peak voltage suppression conforming to "UL" standards
- Flexible installation on joinable subbases
- Manual operator as standard
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure See "SPECIFICATIONS" [1 bar = 100 kPa]
Maximum allowable pressure 16 bar
Response time 7 ms

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas	- 10°C à + 60°C	NBR (nitrile) PUR (polyurethane)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body PAM, glass-filled
Core tube Stainless steel
Core and plugnut Stainless steel
Internal parts, springs Stainless steel
Seals NBR, PUR
Shading coil Copper

CONSTRUCTION

Mounting pad NC ISO 15218 (CNOMO 06-05-80 / NF E49-066, size 30)
 NO - U NF E 49-066

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connector Spade plug (cable Ø 6-10 mm) or M12
Connector specification ISO 4400 / EN 175301-803, form A
 or CNOMO E03.62.520.N (M12)

Electrical safety IEC 335
Electrical enclosure protection Moulded IP67 (EN 60529)
 Moulded IP65, M12 version

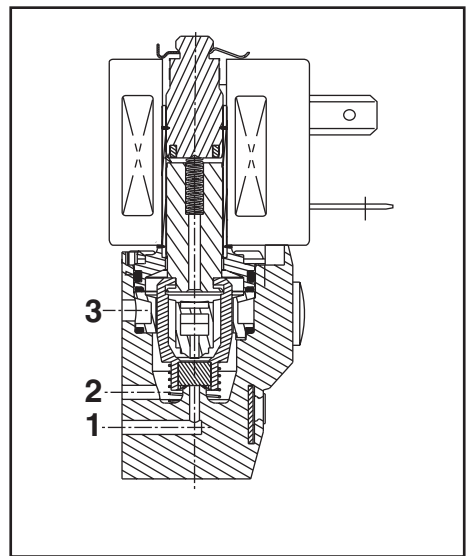
Standard voltages DC (=): 24V - 48V (M12: 24V + LED and protection)
 AC (~): 24V - 48V - 115V - 230V / 50 Hz

	power ratings			operator ambient temperature range (TS) (C°)	replacement coil		type ⁽¹⁾	
	inrush ~	holding ~	hot/cold =		~	=		
	(VA)	(VA) (W)	(W)		230 V/50 Hz	24 V DC		
-	9	4	3	3 / 3	-10 to + 60	43005627	43005642	01
						-	43005664	06

⁽¹⁾ Refer to the dimensional drawings on the following page.

SPECIFICATIONS

pipe size	orifice size		flow at 6 bar		flow coefficient		operating pressure differential (bar)			power coil (W)		catalogue number							
	1 → 2	2 → 3	1 → 2	2 → 3	1 → 2	2 → 3	min.	max. (PS)		~	=	without man. operator	maintained man. operator	impulse man. operator	button man. operator	with connector	without connector	M12 connection	
	(mm)	(mm)	(l/min)	(l/min)	(l/min)	(l/min)		air (*)	~										=
NC - Normally closed (with exhaust to the subbase)																			
pad mounting ⁽²⁾	1,9	2,1	105	105	1,5	1,5	0	16	16	3	3	×	●	▼	■	19201004	19201025	19201139	
												●	▼	■	19201005	19201026	19201140		
												×	●	▼	■	19201006	19201027	19201141	
	2,1	2,3	112	154	1,6	2,2	0	12	12	3	3	×	●	▼	■	19201068	19201074	19201155	
												×	●	▼	■	19201001	19201022	19201136	
												×	●	▼	■	19201002	19201023	19201137	
												×	●	▼	■	19201003	19201024	19201138	
													×	●	▼	■	19201007	19201073	19201154
NC - Normally closed (with exhaust 1/8 to the front side)																			
pad mounting ⁽²⁾	1,9	2,1	105	105	1,5	1,5	0	16	16	3	3	×	●	▼	■	19201010	19201031	19201145	
												●	▼	■	19201011	19201032	19201146		
												×	●	▼	■	19201012	19201033	19201147	
	2,1	2,3	112	154	1,6	2,2	0	12	12	3	3	×	●	▼	■	19201070	19201076	19201157	
												×	●	▼	■	19201007	19201028	19201142	
												×	●	▼	■	19201008	19201029	19201143	
												×	●	▼	■	19201009	19201030	19201144	
													×	●	▼	■	19201069	19201075	19201156



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SPECIFICATIONS

pipe size	orifice size		flow at 6 bar		flow coefficient		operating pressure differential (bar)			power coil (W)		catalogue number						
	1 → 2 2 → 3		1 → 2 2 → 3		1 → 2 2 → 3		min.	max. (PS)		~	=	without man. operator	maintained man. operator	impulse man. operator	button man. operator	with connector	without connector	M12 connection
	(mm)	(mm)	(l/min)	(l/min)	(l/min)	(l/min)		air (*)	~									
NO - Normally open (with exhaust to the subbase)																		
pad mounting ⁽²⁾	2,1	1,9	112	105	1,6	1,5	0	10	10	3	3	×	●	▼	■	19201013	19201034	19201148
												19201014	19201035	19201148				
												19201015	19201036	19201150				
												19201071	19201077	19201158				
U - Universal (with exhaust to the subbase)																		
pad mounting ⁽²⁾	1,5	1,5	56	63	0,8	0,9	0	10	10	3	3	×	●	▼	■	19201019	19201037	19201151
												19201020	19201038	19201152				
												19201021	19201039	19201153				
												19201072	19201078	19201159				

EMBASSES

pipe size	designation	composition	catalogue number
6/6 polyamide subbases			
instant fittings ⁽³⁾	single subbase (instant fittings OD 4 mm)		35300069
	joinable subbase (instant fittings OD 4 mm)		35300070
	set of 2 joinable end subbases, right-hand pressure intake, endpieces with instant fittings OD 6 mm		35300071
	set of 2 joinable end subbases, right-hand and/or left-hand pressure intake, endpieces with instant fittings OD 6 mm		35300072 ⁽⁴⁾
Zamak subbases			
tapped ⁽⁵⁾	laterally-connected single subbase		35300047
	laterally-connected joinable subbase		35300048
⁽³⁾	laterally-connected single subbase (3 connectable ports lateral bore)		35300049
	laterally-connected joinable subbase (3 connectable ports lateral bore)		35300057

⁽²⁾ Port 3: M5.

⁽³⁾ These subbases can be mounted on omega rail to EN 50022 using 2 clips (clips sold in packs of 10, catalogue number: **33400036**).

⁽⁴⁾ The equipment can be used for two different pressure intakes, supplied with one blanking plug to cover unused port.

⁽⁵⁾ 10 bar on request (with 5W/6,9W coil)

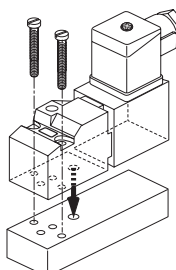
OPTIONS

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see "Explosionproof solenoids" section): Ex mb (PV), catalogue numbers: **PV19201001...1072**
- Straight M12 connector (IP67 protection with connector correctly installed): with 5 m cable: catalogue number **88130212**
- Right-angle M12 connector (IP67 protection with connector correctly installed), with 5 m cable: catalogue number **88130213**
- Catalogue number (without connector) + connector catalogue number (with integrated LED indicator and electrical protection): 24 V (~/=), **88122603** - 48 V (~/=), **88122604** - 115 V (~), **88122605** - 230 V (~), **88122608**
- M5 flow control regulator to fit port 3, catalogue number: **34600380**
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

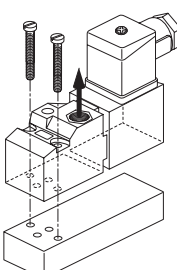
INSTALLATION


- The solenoid valves can be mounted in any position without affecting operation
- Selection of the exhaust port:

to the subbase.
(Collected in subbase)



to front side (G 1/8) equipped with an exhaust plug.
(Exhaust to atmosphere)


- Mounting on single or joinable subbases
- ATEX 2014/34/EU versions (option "PV") can be installed on single (all versions) or joinable zinc diecast subbases
- Pipe connections 1/8 have standard thread according to ISO 228/1
- Installation/maintenance instructions are included with each valve
- M12 electrical connection:



3	-
4	+
5	earth
- Installation/maintenance instructions are included with each valve

ORDERING EXAMPLES:

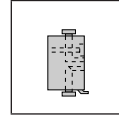
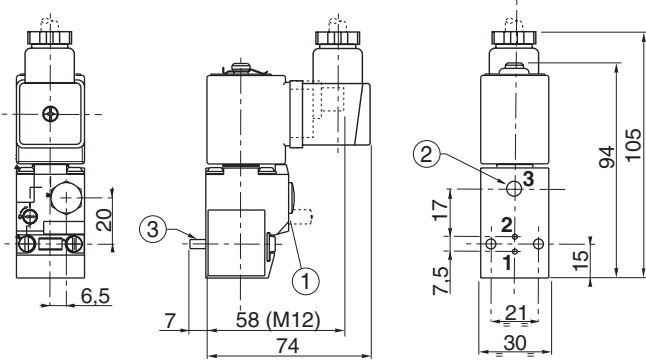
19201001	230V / 50 Hz
19201136	24V / DC
basic number	voltage options

DIMENSIONS (mm), WEIGHT (kg)



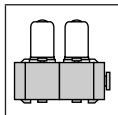
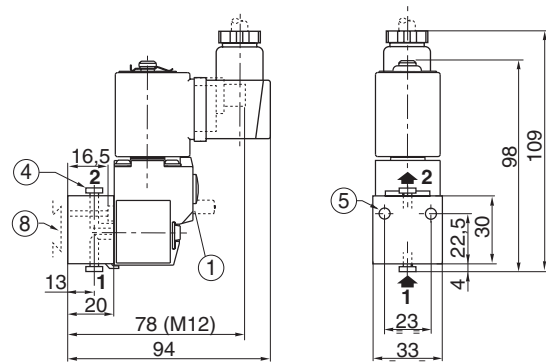
TYPE 01-06
Spade plug / M12
IEC 335 / IP67 / IP65 (M12)
EN 175301-803 (11 mm)
E03.62.520.N, IP65

19000005 to 19000045



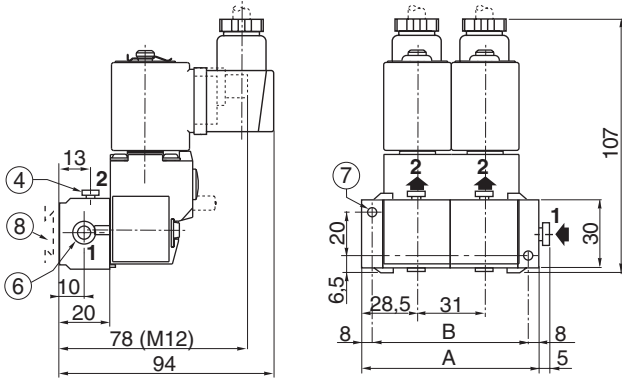
TYPE 02
Single instant fitting subbase
Polyamide

35300069



TYPE 03
Joinable instant fitting subbase
Polyamide

35300070 / 35300071 (set of 2)



type	weight ⁽¹⁾
01	0,270
02	0,135
06	0,260

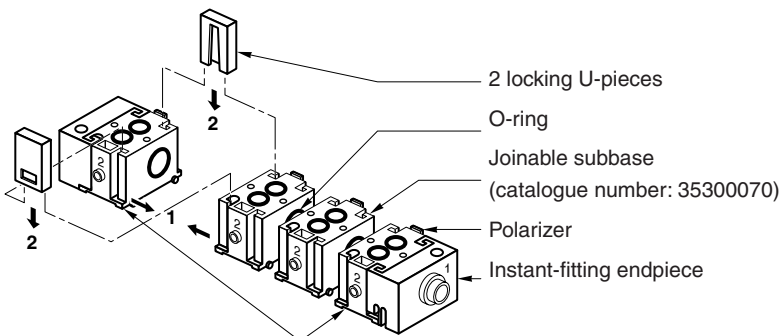
⁽¹⁾ including coil and connector. (except M12 connection type 06)

type	weight ⁽²⁾						
	number of subbases						
	2	3	4	5	6	7	8
03+01	0,595	0,88	1,165	1,45	1,735	2,02	2,305

⁽²⁾ Including seals, set screws and joining unit.

number of subbases	type 03	
	A	B
2	88	72
3	119	103
4	150	134
5	181	165
6	212	196
7	243	227
8	274	258

Right-hand pressure intake option or 2 different pressure intakes by procuring the set of two end subbases with endpieces (catalogue number: 35300072). When mounted on DIN rail, it is recommended to use a securing clip on the end subbases as well as on the central subbase.



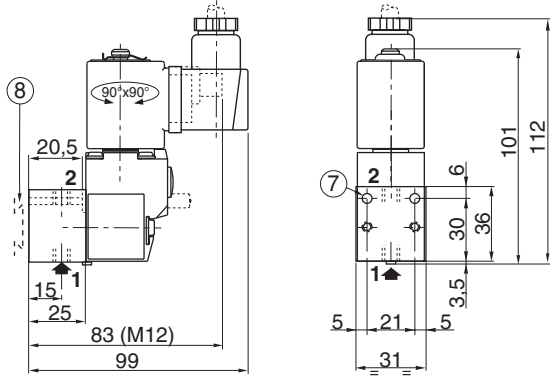
Joinable end subbases with instant-fitting endpieces
(catalogue number: 35300071)

- ① Manual operator location
- ② Port 3: M5, depth 5,5 mm
- ③ Mounting: two CM4x20 screws
- ④ Instant-fitting connection for OD 4 mm tube
- ⑤ Mounting: two dia. 3,5 mm securing holes, dia. 6,5 mm counter-bores, depth 3,5 mm
- ⑥ Instant-fitting connection for OD 6 mm tube
- ⑦ Mounting: two dia. 4,5 mm securing holes
- ⑧ Adaptable clips

DIMENSIONS (mm), WEIGHT (kg)

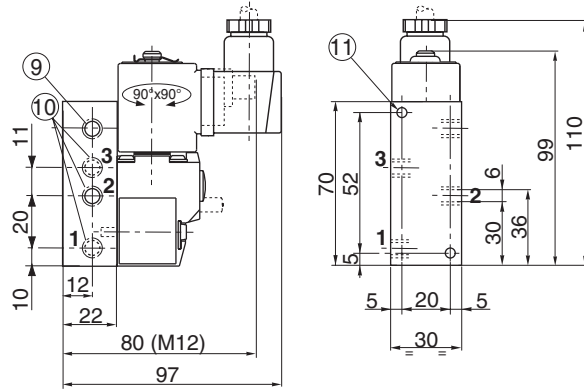
TYPE 04
Single subbase
1/8 - Zamak
NC function only
2 connectable ports

35300047



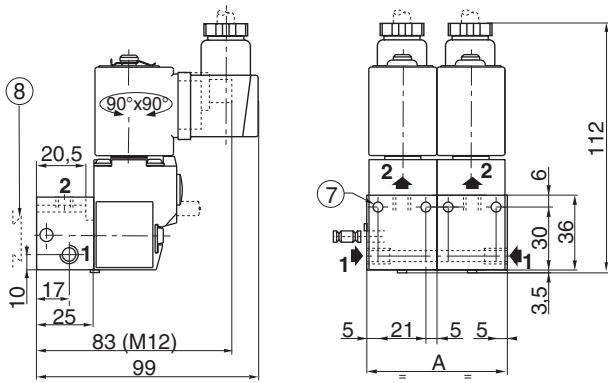
TYPE 04
Single subbase
1/4 - Zamak
NC, NO or U function
3 connectable ports

35300048



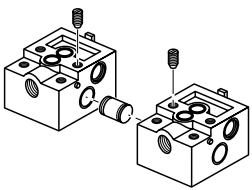
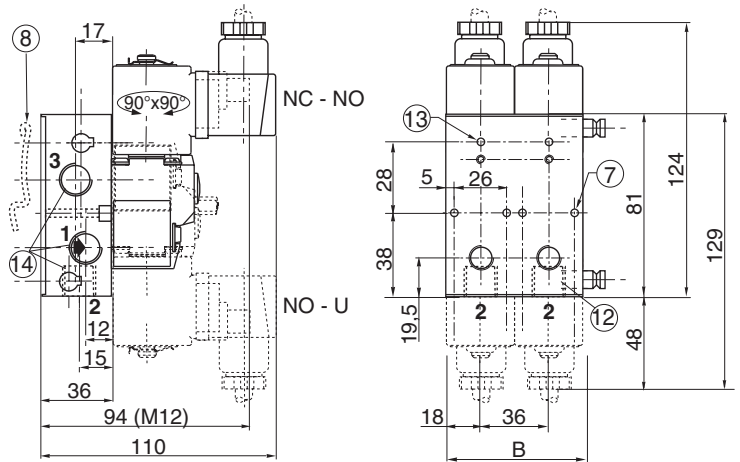
TYPE 06
Joinable subbase
1/8 - Zamak
NC function only
2 connectable ports

35300048



TYPE 07
Joinable subbase
1/4 - Zamak
NC, NO or U function
3 connectable ports

35300057



Joinable subbases assembled with adapter locked by sunk set screws.
For DIN rail mounting: see type 03.

- ⑦ Mounting: two dia. 4,5 mm securing holes
- ⑧ Adaptable clips
- ⑨ Non-used port
- ⑩ Port 3: NC (exhaust) / NO (Inlet pressure)
Port 2: NC - NO (Outlet pressure)
Port 1: NC (Inlet pressure) / NO (exhaust)
U: Pressure entry through any port
- ⑪ Mounting: two dia. 4,5 mm securing holes, dia. 8 mm counter-bores, depth 6 mm
- ⑫ Port 2: Accessible by removing cap
- ⑬ Mounting: two dia. 4,5 mm securing holes, dia. 7,5 mm counter-bores, depth 6 mm
- ⑭ NC-NO-U: Port 3 (exhaust) / Port 2 (Outlet pressure)
Port 1 (Inlet pressure))

type	weight ⁽²⁾							
	number of subbases							
	2	3	4	5	6	7	8	
06+01	0,74	1,10	1,48	1,85	2,22	2,59	2,96	
07+01	0,88	1,32	1,76	2,2	2,64	3,08	3,52	

⁽²⁾ Including seals, set screws and joining unit.

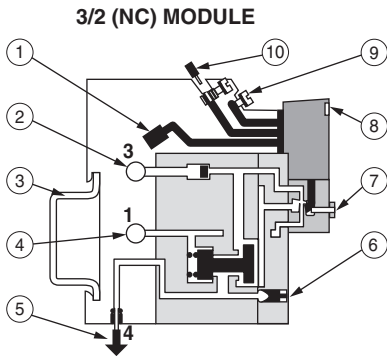
number of subbases	type 06	type 07
	A	B
2	62	72
3	93	108
4	124	144
5	155	180
6	186	216
7	217	252
8	248	288

type	weight ⁽¹⁾
04	0,185
05	0,240
04 + 01	0,455
05 + 01	0,510

⁽¹⁾ including coil and connector.

FEATURES

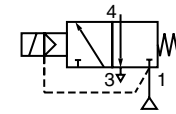
- This interface will change an electric signal to a pneumatic signal with one or two outputs.
- Made up of modular joinable elements with 3/2 normally closed or 4/2 functions. The equipment can be fitted on standard symmetrical DIN rail ③



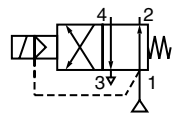
- ① Common supply tag
- ② Common exhaust
- ③ Standard symmetrical DIN rail
- ④ Common supply pressure
- ⑤ Pneumatic signal
- ⑥ Visual indication
- ⑦ Manual override
- ⑧ Visual indication of electric signal
- ⑨ Earth
- ⑩ Electric signal : - supply (A1)
- neutral (A2)



3/2 (NC) MODULE



4/2 MODULE



GENERAL

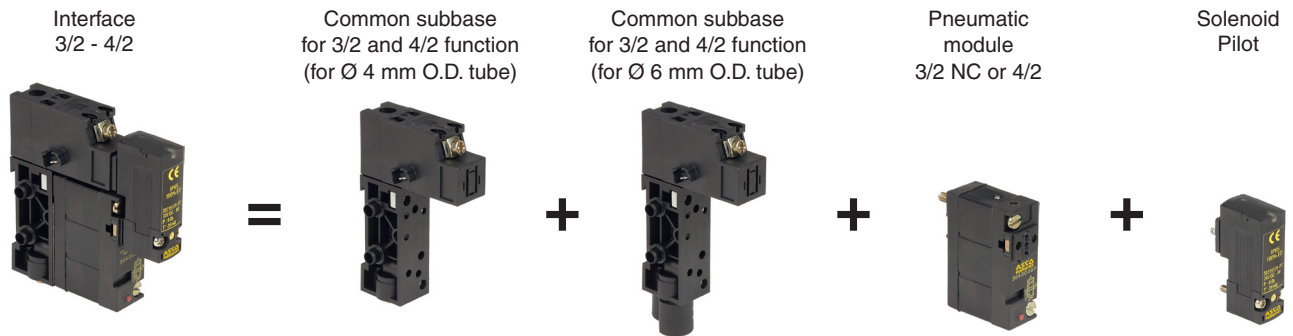
Fluid
Operating pressure
Ambient temperature
Flow (Qv at 6.3 bar)
Assembly
Solenoid valve

Air or neutral gas filtered, lubricated or not
3 to 8 bar
- 10°C to + 40°C
154 l/min(ANR) - Kv : 2.2
On joinable subbases which can be mounted on DIN rail EN 50022
3/2 normally closed mini solenoid valve with low electrical consumption

ELECTRICAL CHARACTERISTICS

voltage (V)	consumption	insulation class	protection degree	electrical connection
~ 24 - 115 - 230	1,6 VA	H	IP 65	<ul style="list-style-type: none"> • Solenoid valve plugs into the module • Common electric wire • Screw terminals (IP20)
= 12 - 24	1,3 W			

ASSEMBLY




CHOICE OF EQUIPMENT

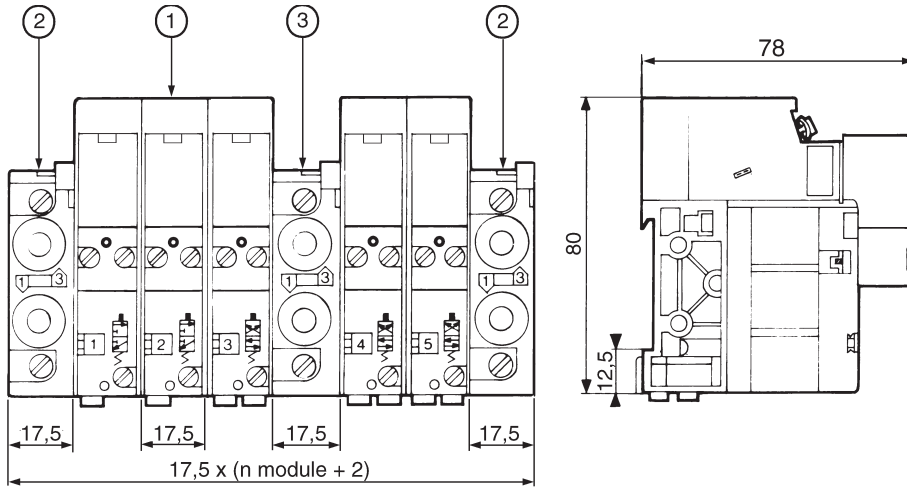
description		code (1)	
interface subbase (Ø 4 mm O.D. tube)		30400011	
interface subbase (Ø 6 mm O.D. tube)		30400024	
set of two end subbases (for Ø 6 mm O.D. tube)		30400001	
intermediate supply module (for Ø 6 mm O.D. tube)		30400004	
valve module 3/2 normally closed (NC)		30400007	
valve module 4/2		30400008	
solenoid pilot valve with or without visual indicator (LED) and electrical protection		with LED	without LED
	manual override impulse	(=) 30215178--P (2)	30211178--P (2)
		(-) 30215178--L (2)	30211178--L (2)
	manual override screwdriver	(=) 30215179--P (2)	30211179--P (2)
	(-) 30215179--L (2)	30211179--L (2)	
blank marking tags (50)		33400042	

(1) Each part must be ordered separately indicating the quantity and part number. They are delivered separately, unassembled
(2) Specify voltage and frequency

OPTION : Solenoid pilot valve without visual indicator and electrical protection

DIMENSIONS (mm), WEIGHT (kg) 

weight (complete interface)
0,800



- ① Module
- ② Ends
- ③ Intermediate supply module for 2 different pressure in lets