

AVENTICS™ Solenoid Valves

3 way, NC/NO, Direct Operated, ISO 15218 (CNOMO, size 30) interface, Pad Mounting Body, Subbases for instant fittings or 1/8 thread

3/2
Series
189

Features & Benefits

- 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 DIN 43650, 11 mm, industry standard B or CNOMO E03.62.520.N (M12)
 Connector specification

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

power ratings				operator ambient temperature range (TS) (°C)	replacement coil		type ⁽¹⁾
inrush ~ (VA)	holding ~ (VA)	hot/cold = (W)	~		=		
6	3.5	2.5	2.5 / 3	-10 to + 60	230 V/50 Hz	24 V DC	
					43004422	43004166	01
					-	43005523	06

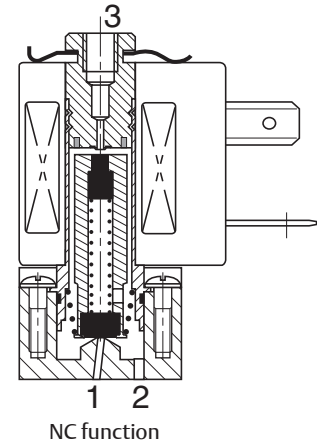
⁽¹⁾ Refer to the dimensional drawings on the following page.

Specifications



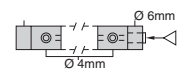
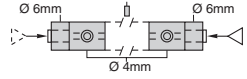


pipe size	orifice size		flow at 6 bar		flow coefficient Kv		operating pressure differential (bar)			power coil (W)		Catalog number		
	1 → 2	2 → 3	1 → 2	2 → 3	1 → 2	2 → 3	min.	max. (PS)				with maintained manual operator		
	(mm)	(mm)	(l/min)	(l/min)	(l/min)	(l/min)		air (*)	~	=	with connector ~/=	without connector ~/=	M12 connection =	
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			
NO - Normally open														
pad mounting ⁽²⁾	1.2	1.5	40	50	0.7	0.6	0	6 ⁽³⁾	6 ⁽³⁾	2.5	3	18900010	18900011	-
										-	3			

⁽²⁾ Port 3: M5.

⁽³⁾ 10 bar on request (with 5W/6.9W coil)



Subbases

pipe size	designation	composition	Catalog number
6/6 polyamide subbases			
instant fittings ⁽¹⁾	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 ⁽²⁾
Zamak subbases			
G 1/8 ⁽¹⁾ tapped	laterally-connected single subbase		35300047
	laterally-connected joinable subbase		35300048

⁽¹⁾ These subbases can be mounted on omega rail to EN 50022 using 2 clips (clips sold in packs of 10, catalogue number: **33400036**).

⁽²⁾ The equipment can be used for two different pressure intakes, supplied with one blanking plug to cover unused port.

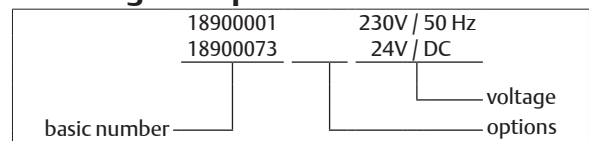
Options

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU: 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 (AC/DC), **88122405** - 48 V (AC/DC), **88122406** - 115 V (AC), **88122407** - 230 V (AC), **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

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

Ordering examples valves:



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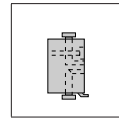
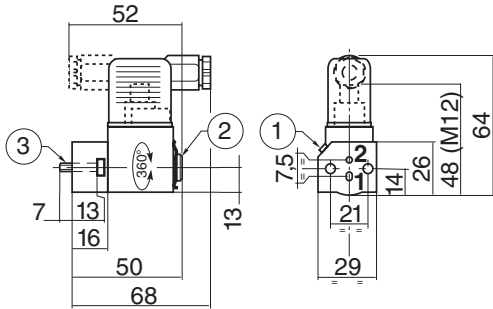
AVENTICS™ Solenoid Valves

Dimensions (mm), Weight (kg)



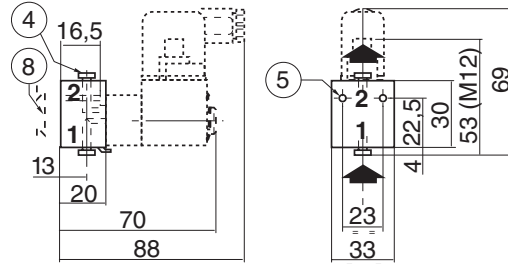
TYPE 01-06
Spade plug /M12
IEC 335
DIN 43650 / E03.62.520.N - IP65

18900001/18900010/18900073/18900075



TYPE 02
Single instant fitting subbase
Polyamide

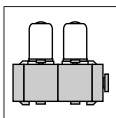
35300069



type	weight ⁽¹⁾
01	0.120
02	0.135
06	0.105

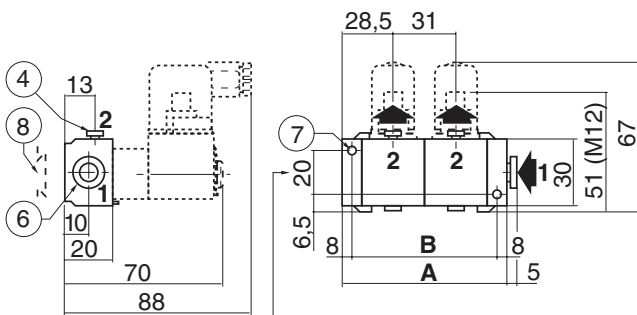
⁽¹⁾ including coil and connector.
(except M12 connection type 06)

- 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



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

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

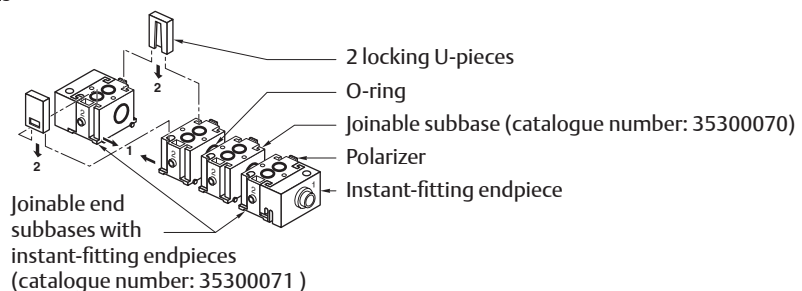
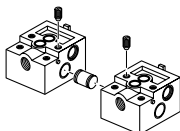


type	weight ⁽²⁾							
	number of subbases							
	2	3	4	5	6	7	8	
03+01	0.295	0.430	0.565	0.700	0.835	0.970	1.105	
03+06	0.265	0.385	0.505	0.625	0.745	0.865	0.985	


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

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.

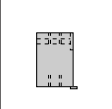
Joinable subbases assembled with adapter locked by sunk set screws.
For DIN rail mounting: see type 03.



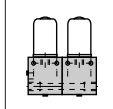
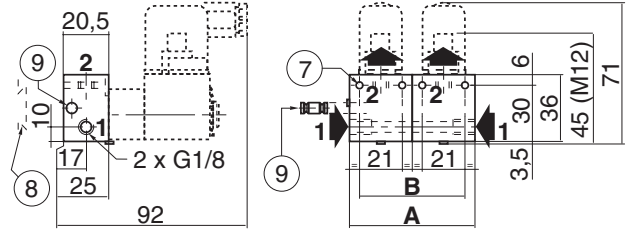
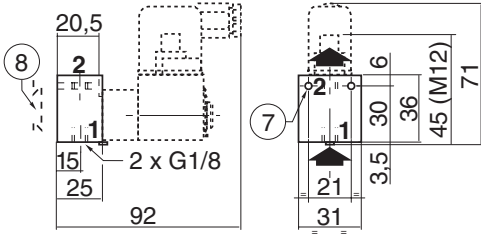
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Dimensions (mm), Weight (kg) 

TYPE 04
Single subbase
Zamak
35300047



TYPE 05
Joinable subbase
Zamak
35300048

type	weight ⁽¹⁾
04	0.185

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

number of subbases	type 05	
	A	B
2	62	52
3	93	83
4	124	114
5	155	145
6	186	176
7	217	207
8	248	238

- ⑦ Mounting: two dia. 4.5 mm securing holes
- ⑧ Adaptable clips
- ⑨ Subbase mounting hole, adapter

type	weight ⁽²⁾						
	number of subbases						
	2	3	4	5	6	7	8
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.