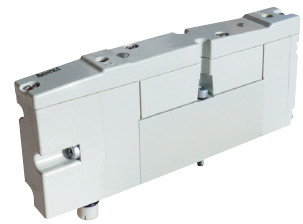


AVENTICS™ Spool Valves

ISO 15407-2 (18 mm) - pad mounting body - M12 connection

Series
502

2x3/2 - 5/2 - 5/3

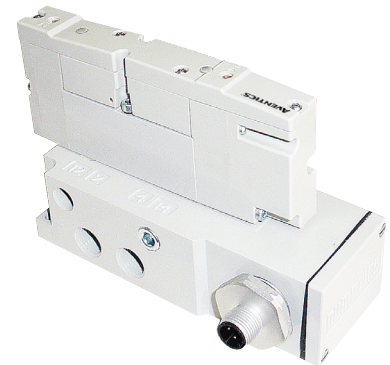


Features

- M12 connection with electrical interface in the subbase:
 - Allows to change the valve without any intervention on electrical and pneumatic connection
 - Reduces installation time and wiring costs
 - Prevents wiring errors
- Spool & Sleeve or rubber packed technology in the same dimension body
- High flow rate up to 500 l/min
- Internal or external pilot pressure supply capability and compliance with ISO standard 15407-2 18 mm
- Spool & sleeve technology for long service life, rubber-packed version for high flow combined with multi-functions

General

Operating pressure	See «SPECIFICATIONS» [1 bar = 100 kPa]
Ambient temperature range (TS)	-10°C to +50°C
Rated flow	See «SPECIFICATIONS»
conforming to ISO 6358	C (5/2) = 24.24 x 10 ⁻⁹ m ³ /s.Pa (sonic conductance) b (5/2) = 0.28 (critical pressure ratio)
Pneumatic/electric base	ISO 15407-2 26 mm (M12 in the subbase)
Connection	Single subbase
Response time	See «SPECIFICATIONS»



M12 electrical interface in the subbase

fluids (*)	temperature range (TS)	technology	seal materials (*)
air or inert gas ISO 8573 Level 7.4.4	-10°C to +50°C	rubber packed	NBR (nitrile) + PUR (polyurethane)
	-10°C to +50°C	spool & sleeve	metal-to-metal sealing

Materials in contact with fluid

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

Body	Aluminium, E-coating treatment
Spool	Aluminium or st. steel (spool & sleeve)
Piston	POM (rubber packed)
Spring	Steel
Other seals	NBR
Other materials	PA (polyamide) GF 50% (glass fiber reinforced)
Subbases	Aluminium, E-coating treatment

Electrical characteristics

Coil insulation class	F
Round connector	1 x 4 pin M12 male, IEC 61076-2-101
PIN assignment	ISO 20401
Electrical safety	IEC-EN 60730-1 / IEC-EN 60730-2-8
Electrical enclosure protection	IP65 (EN 60529)
Standard voltages	DC (=) : 24V
Power ratings (hot / cold) (=)	1.1 W / 1.3 W

M12 (ISO 20401)		1	not used
		2	not used
		3	common, 0 V
		4	supply, coil 14
		1	not used
		2	supply, coil 12
		3	common, 0 V
		4	supply, coil 14

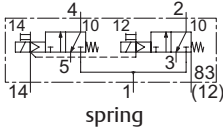
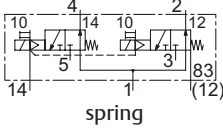
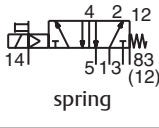
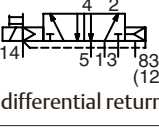
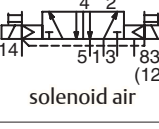
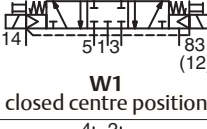
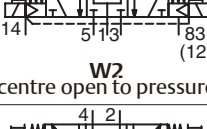
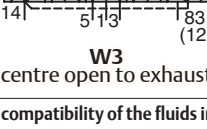
Accessories

Straight M12 connector female With 5 m cable length (5 pin):
Catalog number **88130212**



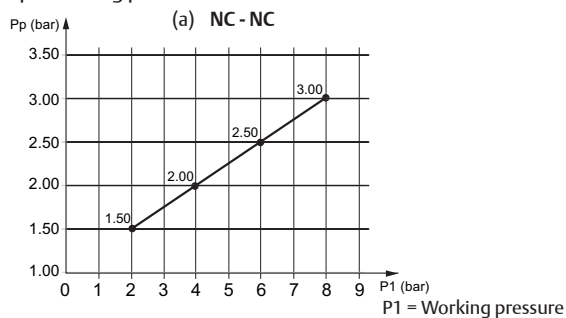
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Specifications

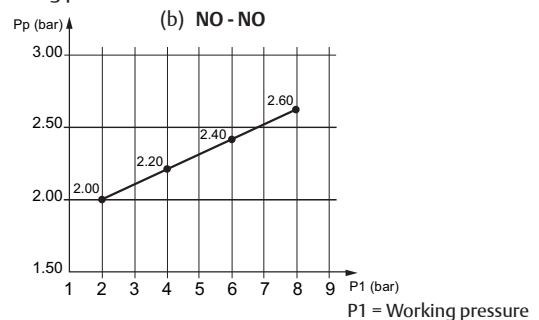
function	type	symbol	interface	rated flow		response time	pilot pressure		operating pressure port 1		dimensions / type	Catalog number
				at 6.3 bar $\Delta P 1$ bar			at 23°C (bar)		min.			
				1 → 2 1 → 4	2 → 3 4 → 5	l/min (ANR)	(ms)	min.	max.	max. (PS) air (*)		
SPOOL VALVE, RUBBER PACKED TECHNOLOGY, WITH IMPULSE MANUAL OPERATOR												
2 x 3/2 NC	K	 spring	ISO subbase	500	440	39 / 19	(a)	8	2	8	01	R502A2BD0MA00F1
2 x 3/2 NO	N	 spring	ISO subbase	500	470	19 / 26	(b)	8	2	8	01	R502A2BA0MA00F1
5/2	S	 spring	ISO subbase	510	510	17 / 38	3	8	-0.95	8	01	R502A2B10MA00F1
	M	 differential return	ISO subbase	510	510	17 / 44	2	8	-0.95	8	01	R502A2BN0MA00F1
	J	 solenoid air	ISO subbase	510	510	14 / 14	2	8	-0.95	8	01	R502A2B40MA00F1
5/3	G	 W1 closed centre position	ISO subbase	490	490	18 / 18	3	8	-0.95	8	01	R502A2B60MA00F1
	B	 W2 centre open to pressure	ISO subbase	390	390	21 / 27	3	8	-0.95	8	01	R502A2B70MA00F1
	E	 W3 centre open to exhaust	ISO subbase	390	470	36 / 21	3	8	-0.95	8	01	R502A2B50MA00F1

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

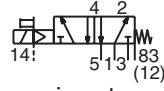
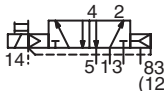
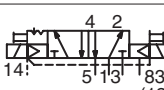
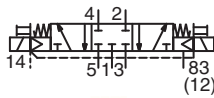
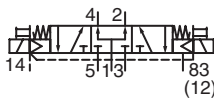
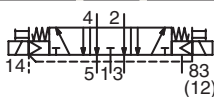
Pp = Piloting pressure



Pp = Piloting pressure



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SPOOL VALVE, SPOOL AND SLEEVE TECHNOLOGY, WITH IMPULSE MANUAL OPERATOR										
5/2		410	390	16 / 49	2	8	-0.95	8	01	R502A1B10MA00F1
		410	390	11 / 26	1.5	8	-0.95	8	01	R502A1BN0NA00F1
		410	390	16 / 16	2	8	-0.95	8	01	R502A1B40MA00F1
5/3		360	350	12 / 12	1.5	8	-0.95	8	01	R502A1B60MA00F1
		370	350	13 / 23	1.5	8	-0.95	8	01	R502A1B70MA00F1
		340	350	23 / 13	1.5	8	-0.95	8	01	R502A1B50MA00F1

How to Order - Valves

Configurator - CAD Files

PRODUCT CODE

R 502 A 2 B N O M A00 F1

Thread connection

R = Pad mount

Product series

502 (18 mm valve)

Revision letter

A = Initial release

Actuation

- 1 = Spool and sleeve
- 2 = Rubber packed (2x3/2 NC, only)

Valve type

B = Solenoid pilot
(With impulse manual operator)

Function

- A = 2x3/2 NO, dual 3-way (Rubber packed)
- D = 2x3/2 NC, dual 3-way (Rubber packed)
- N = 5/2, Differential air return
- 1 = 5/2, spring return
- 4 = 5/2, solenoid air return
- 5 = 5/3, W3, open center to exhaust
- 6 = 5/3, W1, center closed
- 7 = 5/3, W2, open center to pressure

Voltage - class

F1 = 24 V DC - class F

Options

- Plug-in valves
(External piloting)⁽¹⁾
- A00 = Standard (No option)
With impulse manual operator
- 11B = With maintained manual operator
- 11M = Without manual operator
- 14B = Internal pilot supply from port 1
- 83B = 10 b max. pressure - non UL certified
- 81G = 11B + 14B
- 82M = 11B + 83B
- 82N = 11M + 83B
- 82K = 11M + 14B
- 82P = 14B + 83B
- 69N = 14B + 11M + 83B
- 69P = 14B + 11B + 83B

Electrical interface


M = Plug-in (electrical interface in the subbase)

⁽¹⁾ Single subbases:

Used external spool valve (2 single subbases, internal or external supply).

Installation

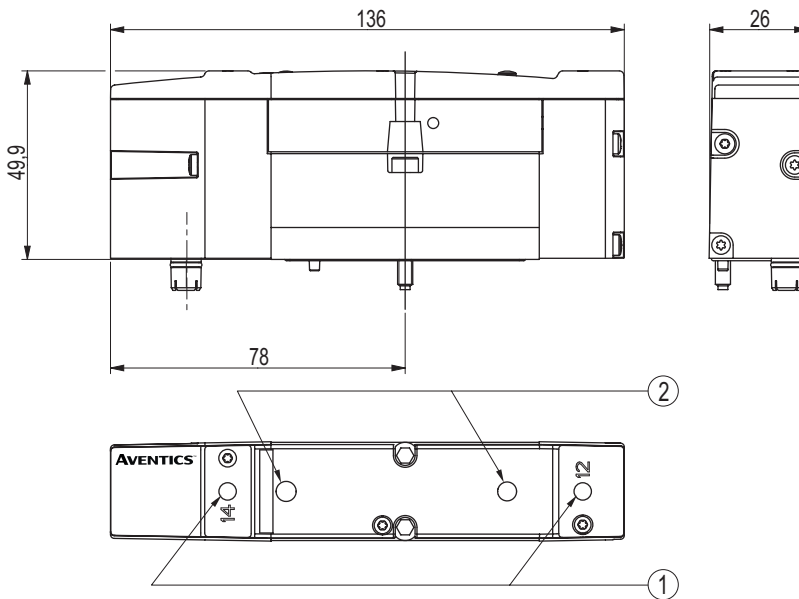
- The spool valves can be mounted in any position without affecting operation
- Spool valve supplied with mounting screws and mounting pad gasket
- ISO 15407-2 pneumatic/electric pad mounting body (plug-in version, single subbase M12)

Dimensions (mm), Weight (kg) 

Configurator - CAD Files



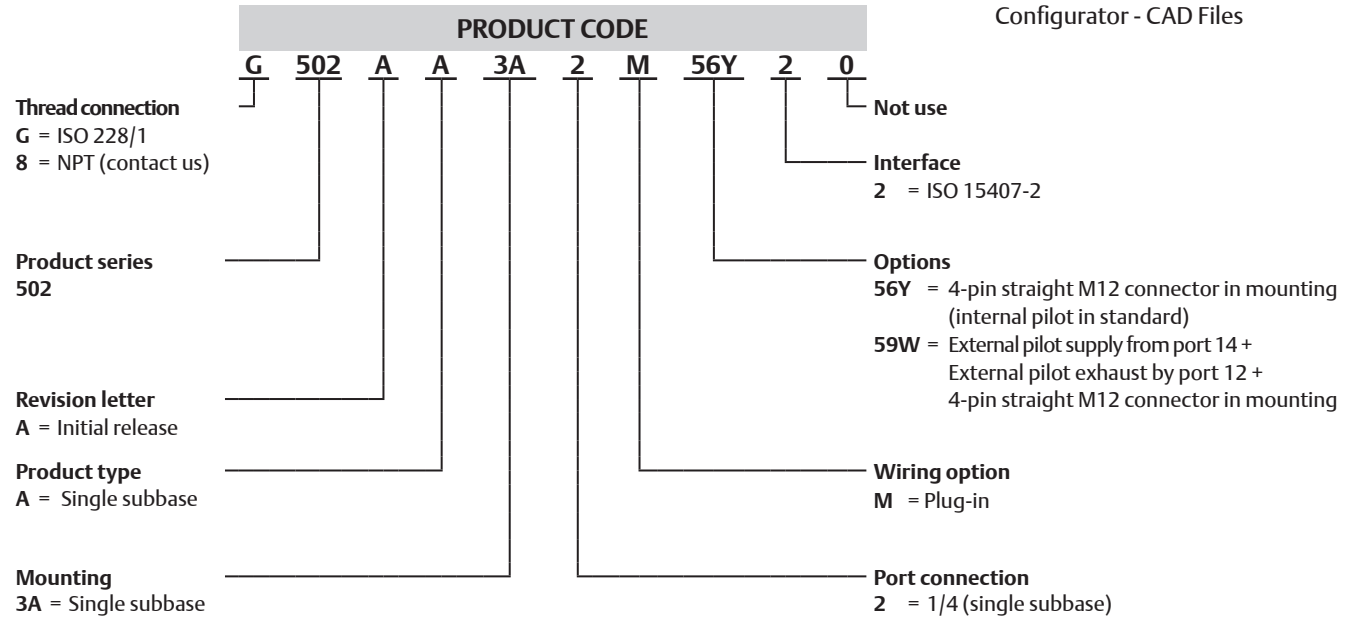
TYPE 01
Electrical interface “M”
ISO 15407-2 / ISO 20401
IP65




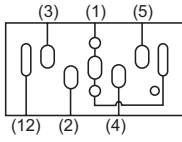


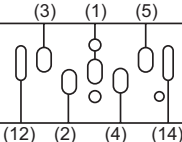
type	weight
01	0.236

- ① Manual operator
- ② LED indicator


How to Order - Single subbases



Single subbases

function		designation		thread type	dimensions / type	Catalog number
SINGLE SUBBASE (ISO 15407-2) FOR PLUG-IN VALVE						
		internal supply 1-2-3-4-5 = 1/4 12 = 1/8 (pilot exhaust) (mounting interface surface with electrical connector)	G	02		G502AA3A2M56Y20
		external supply 1-2-3-4-5 = 1/4 12 = 1/8 (pilot exhaust) 14 = 1/8 (pilot external supply) (mounting interface surface with electrical connector)	G	02		G502AA3A2M59W20

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Dimensions (mm), Weight (kg) 

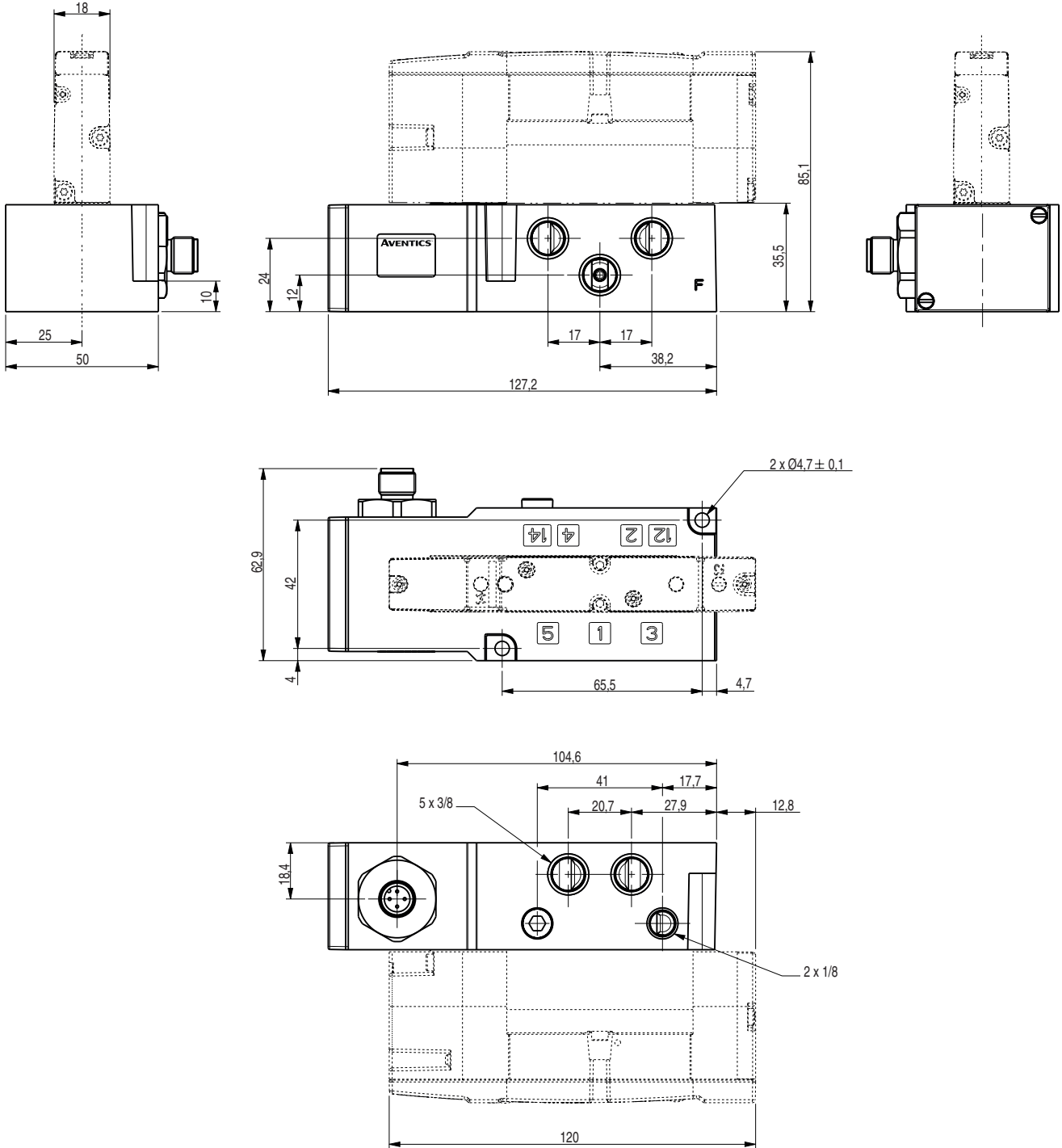
Configurator - CAD Files



TYPE 02

Single subbases, M12 connector in mounting
ISO 15407-2, plug-in version
3/8 = 1, 2, 3, 4, 5 ports
1/8 = 12, 14 ports

G502AA3A3M56Y20 - G502AA3A3M59W20



type	Catalog number	weight
02	G502AA3A3M56Y20	0.231
	G502AA3A3M59W20	0.228