

FEATURES

- High flow rate up to 1400 l/min
- Spool & Sleeve or rubber packed technology in the same dimension body
- Wide electrical connection selection : G3 or 580 Fieldbus Electronics, 25 or 37 Pin Sub-D connector, 19 Pin Round connector, 26 Pin Round connector or Terminal Strip
- Internal or external pilot pressure supply capability and compliance with ISO standard 15407-2 26 mm
- Solenoid air operated valves which can be mounted on manifold bases
- 580 Electronics

GENERAL

Operating pressure

See «SPECIFICATIONS» [1 bar = 100 kPa]

Ambient temperature range (TS)

See «SPECIFICATIONS»

Rated flow

See «SPECIFICATIONS»

conforming to ISO 6358

C (5/2) = $5,21 \times 10^{-8}$ m³/s.Pa (sonic conductance)

b (5/2) = 0,34 (critical pressure ratio)

Pneumatic base

High flow subbase or ISO 15407-2 26 mm

Connection

Joinable subbase

Response time

See «SPECIFICATIONS»

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



CONSTRUCTION

MATERIALS IN CONTACT WITH FLUID	
(*) Ensure that the compatibility of the fluids in contact with the materials 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	PAM (polyarylamide) , GF 50% (glass fiber reinforced)
Subbases	Aluminium, E-coating treatment

ELECTRICAL CHARACTERISTICS

Coil insulation class	F
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) (=)	1,4 W / 1,7 W

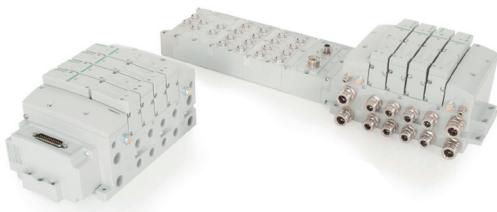
Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

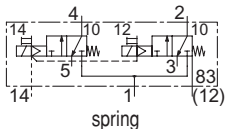
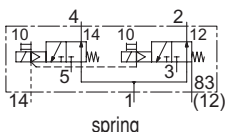
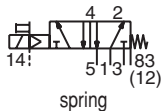
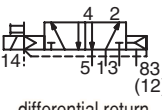
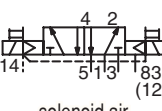
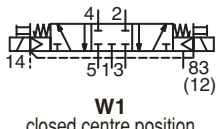
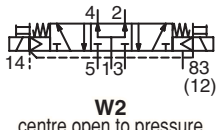
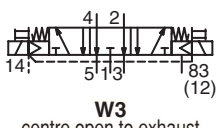
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

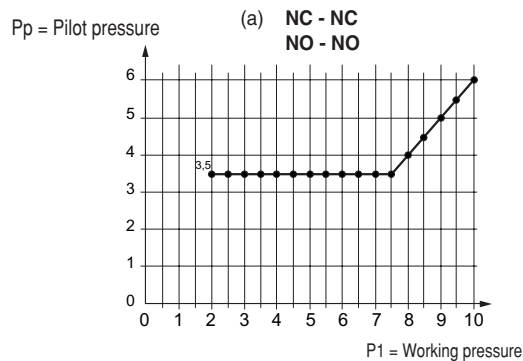


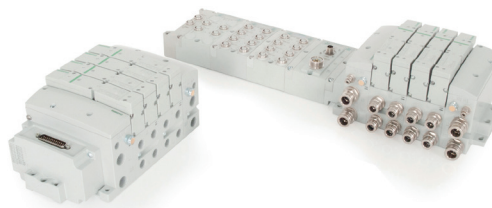
503 series

SPECIFICATIONS

15-DIGIT PRODUCT CODE

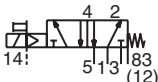
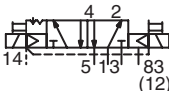
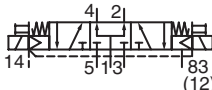
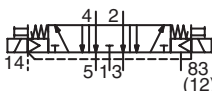
function	type	symbol	rated flow		response time	pilot pressure at 23°C (bar)		operating pressure port 1			
			at 6,3 bar ΔP 1 bar l/min (ANR)								open / closed
			1 → 2 1 → 4	2 → 3 4 → 5							
		pilot (14) return (12)					min.	max. (PS) air (*) =			
SPOOL VALVE, RUBBER PACKED TECHNOLOGY, WITH IMPULSE MANUAL OPERATOR											
2 x 3/2 NC	K	 spring	High flow subbase	1000	800	15 / 20	3,5 (a)	8	2	8	R503A2BD0MA00F1
			ISO subbase	900	800						
2 x 3/2 NO	N	 spring	High flow subbase	950	950	15 / 20	3,5 (a)	8	2	8	R503A2BA0MA00F1
			ISO subbase	900	900						
5/2	S	 spring	High flow subbase	1400	1300	20 / 60	2	8	-0,95	8	R503A2B10MA00F1
			ISO subbase	1200	1100						
	M	 differential return	High flow subbase	1400	1300	28 / 40	3	8	-0,95	8	R503A2BN0MA00F1
			ISO subbase	1200	1100						
	J	 solenoid air	High flow subbase	1400	1300	20 / 20	2	8	-0,95	8	R503A2B40MA00F1
			ISO subbase	1200	1100						
5/3	G	 W1 closed centre position	High flow subbase	1400	1300	15 / 20	4	8	-0,95	8	R503A2B60MA00F1
			ISO subbase	1200	1100						
	B	 W2 centre open to pressure	High flow subbase	1300	600	18 / 45	3	8	-0,95	8	R503A2B70MA00F1
			ISO subbase	1100	600						
	E	 W3 centre open to exhaust	High flow subbase	600	1300	18 / 45	3	8	-0,95	8	R503A2B50MA00F1
			ISO subbase	600	1100						



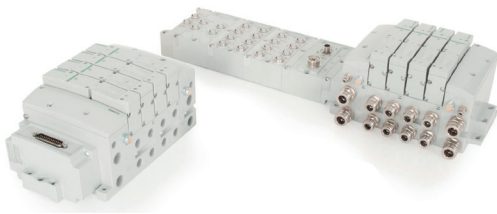


SPECIFICATIONS

15-DIGIT PRODUCT CODE

function	type	symbol	rated flow		response time	pilot pressure at 23°C (bar)		operating pressure port 1			
			at 6,3 bar ΔP 1 bar l/min (ANR)								open / closed
			pilot (14) return (12)	1 → 2 1 → 4	2 → 3 4 → 5	(ms)	min.	max.	min.		max. (PS) air (*)
				=							
SPOOL VALVE, SPOOL AND SLEEVE TECHNOLOGY, WITH IMPULSE MANUAL OPERATOR											
5/2	S	 spring	High flow subbase	1200	1200	20 / 60	2	8	-0,95	8	R503A1B10MA00F1
			ISO subbase	1100	1000						
	J	 solenoid air	High flow subbase	1200	1200	15 / 15	2	8	-0,95	8	R503A1B40MA00F1
			ISO subbase	1100	1000						
5/3		 W2 centre open to pressure	High flow subbase	1000	1000	20 / 60	2	8	-0,95	8	R503A1B70MA00F1
			ISO subbase	800	800						
		 W3 centre open to exhaust	High flow subbase	1000	1000	20 / 60	2	8	-0,95	8	R503A1B50MA00F1
			ISO subbase	800	800						

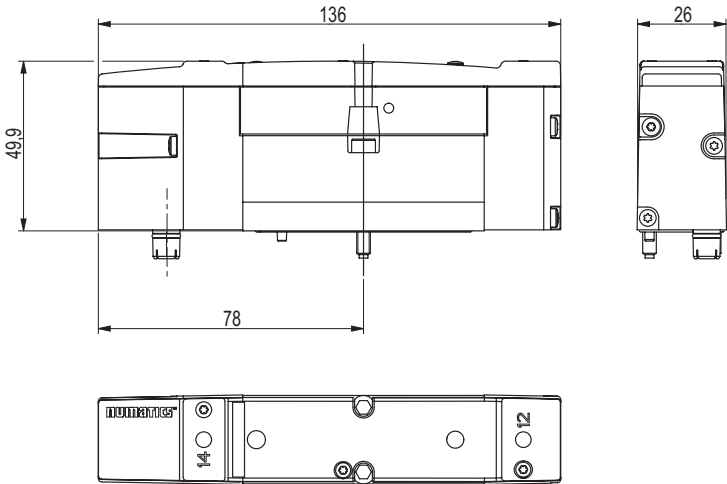
(*) Ensure that the compatibility of the fluids in contact with the materials is verified.



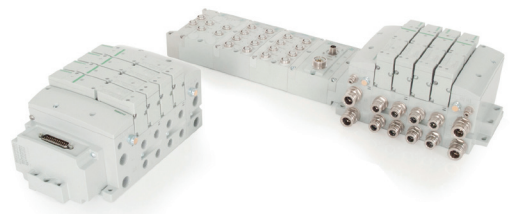
Plug in Valve

Dimensions (mm)

[Configurator - CAD Files](#)

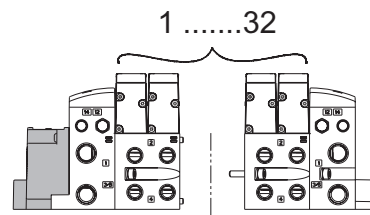


weight (kg)
0.236

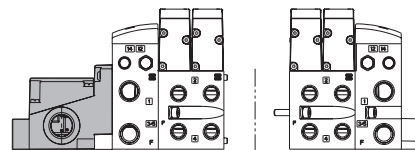


Assembly kits

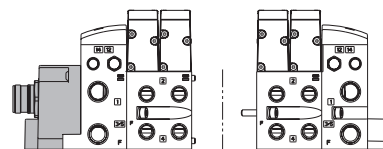
25 or 37 Pin Sub-D



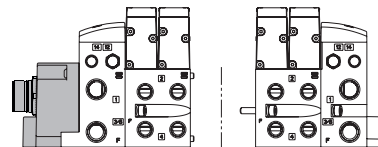
1-32 Terminal Strip



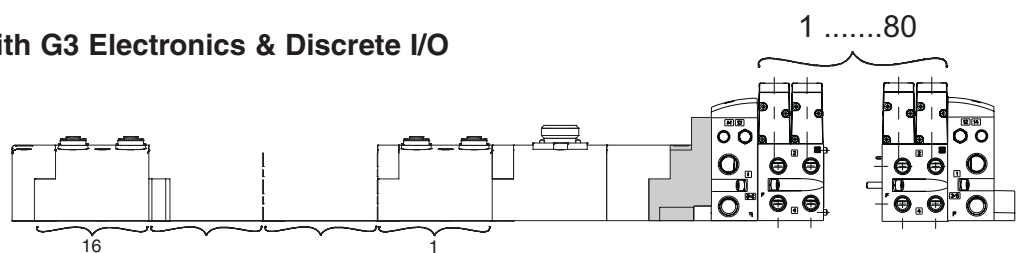
19 Pin Round Connector



26 Pin Round Connector



Manifold assembly with G3 Electronics & Discrete I/O





Configurator - CAD Files

15-DIGIT PRODUCT CODE

Thread connection

G = ISO 228/1
8 = NPT (contact us)
K = Push-in connectors

Product series
503

Revision letter

A = Initial release

Product type

V = Valve Manifold Assembly

Electronics

8 = 580 Fieldbus Electronics
D = CHARMs Electronics
3 = **G3 Fieldbus Electronics**
J = 25 Pin Sub-D Connector
M = 37 Pin Sub-D Connector
R = 19 Pin Round Connector
Q = 26 Pin Round Connector
T = Terminal Strip 1-32
Z = Fanuc Robot End Effector
0 = No Electronics

Number of Valve Stations

B = 2/34/66	L = 12/44/76	V = 22/54	7 = 32/64
D = 4/36/68	N = 14/46/78	X = 24/56	
F = 6/38/70	P = 16/48/80	Z = 26/58	
H = 8/40/72	R = 18/50	3 = 28/60	
J = 10/42/74	T = 20/52	5 = 30/62	

- Options

A00 = Standard (no options)
MUF = Muffler in End Plates
DRM = DIN Rail Mount
DWM = DIN Rail Mount with Muffler
14X = External pilot supply from port 14
D12 = External pilot supply from port 14
 and Muffler in End Plates
D14 = External pilot supply from port 14
 and DIN Rail Mount
F06 = External pilot supply from port 14
 Muffler in End Plates
 and DIN Rail Mount
A27 = Fanuc Robot EE Connection Interface
D28 = Fanuc Robot EE Connection + Muffler in
 End Plate

– End Plate Style

V = Vertical
C = Combination

- Second Valve Series

0 = No Second Valve Series
2 = 18 mm Valve

- Valve Station Adder

0 = No Adder
1 = 32+
2 = 64+

- End Plate Port Size

Used with the first digit «G» or «8»:

3 = 3/8 (manifold base)

Used with the first digit «K»:

K = 8 x 10 mm (push-in connector)

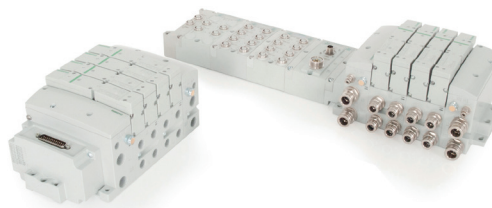
M = 10 x 12 mm (push-in connector)

Maximum Solenoid Outputs

Terminal Strip 1-32	25 Pin Sub-D Connector	37 Pin Sub-D Connector	19 Pin Round Connector	26 Pin Round Connector
32	22	32	16	22

*Note: Maximum number of valve stations is determined by:

- The electrical connection type.
- The valve type: single and/or double solenoid valves



How to Order - Manifold assemblies and subbase

[Configurator - CAD Files](#)

How to Order

Subbases

15-DIGIT PRODUCT CODE

G 503 A M S2 2 M A00 1 0

Thread connection
G = ISO 228/1
8 = NPT (contact us)
K = Push-in connectors

Product series
503 (26 mm valve)

Revision letter
A = Initial release

Product type
M = Manifold base
Z = Mid station supply
F = 32+ Solenoid Manifold Subbase

Mounting
S2 = Manifold base, 2 stations, side port, single Z-Board™
M2 = Manifold base, 2 stations, side port, double Z-Board™
M4 = 32+ Manifold Sub Base, 4 Stations, Side Ports, Double Z-Board™
D2 = Manifold Sub Base, 2 Stations, Dual Flow, Side Ports, Double Z-Board™

Interface
1 = Pneumatic high flow
2 = ISO 15407-2 (26 mm)

Options
A00 = Standard (internal pilot)
14X = External pilot supply from port 14
83H = Pilot Separation from Station 1
83J = Pilot Separation from Station 2

Wiring option
M = Plug-in
V = +24 V DC Separation at First Station
W = +24 V DC Separation at Second Station
X = 0 & +24 V DC Separation at First Station

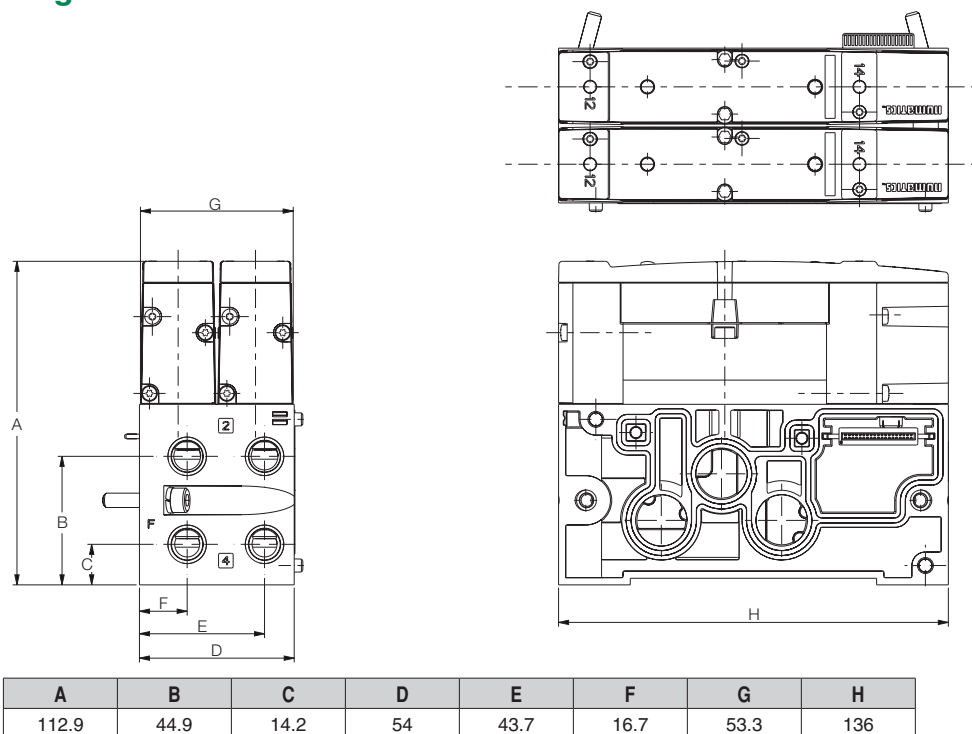
T = 32+ Solenoid Auxiliary Power (used with M4 and F)

Port connection (2-4)
Used with the first digit «G» or «8»:
2 = 1/4
4 = 1/2 (Used for Dual Flow only)
Used with the first digit «K»:
H = 6 x 8 mm [push-in connector only]
K = 8 x 10 mm [push-in connector only]

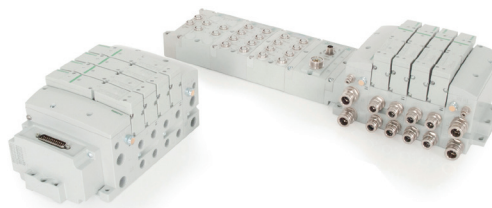
Dimensions (mm)

Plug in Valve Mounted

[Configurator - CAD Files](#)







How to Order - G3 Electronics

G3 EP1 00 D 0 STD

Electronics Protocols

CC1 = CC Link IE Field (1)
CO1 = CANopen®
DN1 = DeviceNet™
EC1 = EtherCAT® (1)
ED1 = EtherNET/IP™ DLR (1)
EM1 = ModBus®/TCP (1)
EP1 = EtherNet/IP™
PL1 = POWERLINK (1)
PT1 = PROFIBUS-DP® (1)
PN1 = PROFINET® (1)
DS2 = Backplane extension Valve Manifold (1)
DS3 = Backplane extension I/O Assembly

Number of I/O Modules

00 = 0
01 = 1
02 = 2
03 = 3
04 = 4
05 = 5
06 = 6
07 = 7
08 = 8
09 = 9
10 = 10
11 = 11
12 = 12
13 = 13
14 = 14
15 = 15
16 = 16

Left Mounting

D = w/ Backplane extension Out
H = w/ Terminating Resistor

(1) 32+ capable.

Special Options

STD = Standard
DRM = DIN Rail Mounting
E23 = Fieldbus assembly without valves
E28 = Valve Side 25 pin Sub D NPN output module
E40 = Auto recovery Module (ARM)
G32 = DRM-Din Rail Mounting
G33 = DRM-Din Rail Mounting
G34 = E28-Valve Side 25 pin Sub D NPN output module
G36 = E23-Fieldbus assembly without valves
J32 = DRM-Din Rail Mounting
J32 = E28-Valve Side 25 pin Sub D NPN output module
J32 = E40-Auto Recovery Module (ARM)

Modification

0 = Initial release



Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93