Series G3







AVENTICS™ Series G3



Bus coupler, Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol DeviceNet



Version	Bus coupler
Ambient temperature min./max.	-10 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.11 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	32
Number of valve positions max.	32
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.252 kg

Technical data

Part No.	Fieldbus protocol	power supply
240-180	DeviceNet	Plug (male), 7/8", 4-pin

Material	
Housing	Polybutyleneterephthalate







Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol MODBUS TCP

	Version	Bus coupler
	Ambient temperature min./max.	-10 50 °C
	Operational voltage electronics	24 V DC
	Electronics voltage tolerance	-10% / +10%
Contraction of the second seco	Power consumption electronics	0.104 A
	Operating voltage, actuators	24 V DC
	Total current for actuators	4 A
and the second se	Protection class	IP65
	Number of solenoid coils max.	128
	Number of valve positions max.	110
	Diagnosis	Undervoltage
	I/O module extension max.	16
	Weight	0.255 kg

Technical data

Part No.	Fieldbus protocol	power supply
240-292	MODBUS TCP	Plug (male), 7/8", 4-pin

Material	
Housing	Polybutyleneterephthalate







Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 5-pin
- Bus coupler
- Fieldbus protocol PROFIBUS DP

	Version	Bus coupler
	Ambient temperature min./max.	-10 50 °C
	Operational voltage electronics	24 V DC
	Electronics voltage tolerance	-10% / +10%
	Power consumption electronics	0.104 A
	Operating voltage, actuators	24 V DC
· · ·	Total current for actuators	4 A
an a	Protection class	IP65
	Number of solenoid coils max.	128
	Number of valve positions max.	110
	Diagnosis	Undervoltage
	I/O module extension max.	16
	Weight	0.227 kg

Technical data

Part No.	Fieldbus protocol	power supply
240-239	PROFIBUS DP	Plug (male), 7/8", 5-pin

Material	
Housing	Polybutyleneterephthalate







Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 5-pin
- Bus coupler
- Fieldbus protocol Profinet

	Version	Bus coupler
	Ambient temperature min./max.	-10 50 °C
the second second	Operational voltage electronics	24 V DC
	Electronics voltage tolerance	-10% / +10%
	Power consumption electronics	0.104 A
10/10	Operating voltage, actuators	24 V DC
in the second	Total current for actuators	4 A
and	Protection class	IP65
	Number of solenoid coils max.	128
	Number of valve positions max.	110
	Diagnosis	Undervoltage
	I/O module extension max.	16
	Weight	0.227 kg

Technical data

Part No.	Fieldbus protocol	power supply
240-240	Profinet	Plug (male), 7/8", 5-pin

Material	
Housing	Polybutyleneterephthalate







Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 5-pin
- Bus coupler
- Fieldbus protocol POWERLINK

	Version	Bus coupler
(1)	Ambient temperature min./max.	-10 50 °C
-	Operational voltage electronics	24 V DC
	Electronics voltage tolerance	-10% / +10%
	Power consumption electronics	0.104 A
	Operating voltage, actuators	24 V DC
· · ·	Total current for actuators	4 A
	Protection class	IP65
	Number of solenoid coils max.	128
	Number of valve positions max.	110
	Diagnosis	Undervoltage
	I/O module extension max.	16
	Weight	0.227 kg

Technical data

Part No.	Fieldbus protocol	power supply
240-309	POWERLINK	Plug (male), 7/8", 5-pin

Material	
Housing	Polybutyleneterephthalate







Bus coupler

-10 ... 50 °C 24 V DC

-10% / +10%

Undervoltage

0.11 A 24 V DC

4 A IP65 32

32

16

0.252 kg

Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol CANopen

	Version
	Ambient temperature min./max.
	Operational voltage electronics
	Electronics voltage tolerance
	Power consumption electronics
100/2	Operating voltage, actuators
	Total current for actuators
	Protection class
	Number of solenoid coils max.
	Number of valve positions max.
-	Diagnosis
	I/O module extension max.
	Weight

Technical data

Part No.	Fieldbus protocol	power supply
240-291	CANopen	Plug (male), 7/8", 4-pin

Material	
Housing	Polybutyleneterephthalate







Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol EtherNET/IP

	Version	Bus coupler
	Ambient temperature min./max.	-10 50 °C
	Operational voltage electronics	24 V DC
	Electronics voltage tolerance	-10% / +10%
	Power consumption electronics	0.104 A
	Operating voltage, actuators	24 V DC
Ser Car	Total current for actuators	4 A
and	Protection class	IP65
	Number of solenoid coils max.	128
	Number of valve positions max.	110
	Diagnosis	Undervoltage
	I/O module extension max.	16
	Weight	0.227 kg

Technical data

Part No.	Fieldbus protocol	power supply
240-325	EtherNET/IP	Plug (male), 7/8″, 4-pin

Material	
Housing	Polybutyleneterephthalate







Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol EtherCAT

	Version	Bus coupler
	Ambient temperature min./max.	-10 50 °C
and the second s	Operational voltage electronics	24 V DC
	Electronics voltage tolerance	-10% / +10%
	Power consumption electronics	0.104 A
1	Operating voltage, actuators	24 V DC
	Total current for actuators	4 A
and a	Protection class	IP65
	Number of solenoid coils max.	128
	Number of valve positions max.	110
	Diagnosis	Undervoltage
	I/O module extension max.	16
	Weight	0.227 kg

Technical data

Part No.	Fieldbus protocol	power supply
240-310	EtherCAT	Plug (male), 7/8", 4-pin

Material	
Housing	Polybutyleneterephthalate







I/O modules, Series G3

- Screw terminal block

- I/O module version



Version I/O module version Ambient temperature min./max. -10 ... 50 °C Operational voltage electronics 24 V DC Electronics voltage tolerance -10% / +10% Power consumption electronics 0.05 A Power supply for actuators 24 V DC 4 A Total current for actuators Protection class IP65 Total current of sensors max. 1,2 A Diagnosis Short circuit Weight 0.274 kg

Technical data

Part No.	Number of inputs	Number of outputs	I/O module version
240-203	16	-	digital inputs PNP
240-204	16	-	digital inputs NPN
240-316	8	-	digital inputs PNP
240-330	-	16	digital inputs NPN

Material	
Housing	polyethyleneterephthalate







I/O module version

I/O modules, Series G3

- digital inputs PNP, Socket (female), M8x1
- I/O module version



Version

Ambient temperature min./max.	-10 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	55 A
Max. current per channel	0.15 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Short circuit
Weight	0.274 kg

Technical data

Part No.	Number of inputs	I/O module version
240-379	8	digital inputs PNP

Material	
Housing	polyethyleneterephthalate







I/O modules, Series G3

- Plug, M23x1, 19-pin, Screw terminal block
- A-design
- I/O module version



Version	I/O module version
Ambient temperature min./max.	-10 50 °C
Power consumption electronics	0.05 A
Max. current per channel	0.3 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Short circuit
Weight	0.274 kg

Technical data

Part No.	Number of inputs	I/O module version
240-323	16	digital inputs PNP

Material	
Housing	polyethyleneterephthalate



I/O modules, Series G3

- Socket, M12x1

- A-design
- I/O module version



Version	I/O module version
Ambient temperature min./max.	-10 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Max. current per channel	0.15 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Short circuit
I/O connection	M12x1, 4-pin
Weight	See table below

Technical data

Part No.	Туре	Number of inputs	Number of outputs
240-205	16DI8M12 digital inputs PNP	16	-
240-206	8DI8M8 digital inputs PNP	8	-
240-207	16DO8M12 digital outputs PNP	-	16
240-208	8DO8M12 digital outputs PNP	-	8
240-209	16DI8M12 digital inputs NPN	16	-
240-210	8DI8M12 digital inputs NPN	8	-
240-211	8DO8M12 digital inputs/outputs PNP	8	8
240-300	8D08M12	-	8

Part No.	I/O module version	I/O connection	Power consumption electronics	Weight
240-205	digital inputs PNP	M12x1, 4-pin	0.05 A	0.274 kg
240-206	digital inputs PNP	M12x1, 4-pin	0.05 A	0.274 kg
240-207	Digital outputs	M12x1, 4-pin	0.11 A	0.274 kg
240-208	digital outputs PNP	M12x1, 4-pin	0.09 A	0.274 kg
240-209	digital inputs NPN	M12x1, 4-pin	0.05 A	0.274 kg
240-210	digital inputs NPN	M12x1, 4-pin	0.05 A	0.274 kg
240-211	digital inputs/outputs PNP	M12x1, 4-pin	0.1 A	0.274 kg
240-300	Digital outputs	M12x1, 4-pin	0.09 A	0.264 kg

Material	
Housing	polyethyleneterephthalate







I/O modules, Series G3

- Socket, M12x1

- A-design



Ambient temperature min./max.	-10 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Diagnosis	Short circuit
I/O connection	M12x1, 4-pin
Weight	See table below

Technical data

Part No.	Туре	Number of inputs	Number of outputs	Analog inputs	Analog outputs	I/O module version
240-212	4AI4M12-E	4	-	0 10 V	-	Analog inputs
240-213	2AIAO8M12	2	2	0 10 V	0 10 V	analog inputs/outputs
240-214	4AI4M12-E	4	-	4 20 mA	-	Analog inputs
240-215	2AIAO4M12	2	2	4 20 mA	4 20 mA	analog inputs/outputs
240-307	2AIAO8M12	2	2	0 10 V	0 10 V	analog inputs/outputs
240-363	-	4	4	-	-	analog inputs/outputs

Part No.	I/O connection	Power consumption electronics	Total current of the power supply for the external sensors	Weight
240-212	M12x1, 4-pin	0.08 A	1,2 A	0.244 kg
240-213	M12x1, 4-pin	0.09 A	1,2 A	0.244 kg
240-214	M12x1, 4-pin	0.08 A	1,2 A	0.244 kg
240-215	M12x1, 4-pin	0.09 A	1,2 A	0.244 kg
240-307	M12x1, 4-pin	0.08 A	4 A	0.264 kg
240-363	M12x1, 4-pin	0.08 A	8 A	0.247 kg

Technical information

Material

Housing

polyethyleneterephthalate





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AVENTICS

Series G3

A-design I/O module version



Version

Ambient temperature min./max. Operational voltage electronics Electronics voltage tolerance Power consumption electronics Power supply for actuators Total current for actuators Protection class Total current of sensors max. Diagnosis I/O module version -10 ... 50 °C 24 V DC -10% / +10% 0.07 A 24 V DC 4 A IP65 1,2 A Overvoltage Undervoltage

Technical data

Part No.	Туре	I/O module version
240-311	Socket, M12x1	Analog inputs

Material	
Housing	polyethyleneterephthalate





Digital inputs NAMUR, Series G3 240-320

General series information AVENTICS G3 Electronic Fieldbus Platform

In today's highly automated machines, the **AVENTICS Series G3 electronic fieldbus** valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/ O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.



Technical data

Version Note E/A capable I/O module version Number of I/O connections Number of inputs Certificates ATEX ID

Min. ambient temperature Max. ambient temperature Operating voltage, actuators Power supply for actuators Total current for actuators Protection class I/O modules Socket (female), M12 connection with I/O digital inputs NAMUR 8 inputs 8 ATEX II (1G) Ex ia IIC Ga II (1D) Ex ia IIIC Da -10 °C 50 °C 24 V DC 24 V DC 4 A IP65



Diagnosis	Short circuit Broken wire
Electrical connection size	M12
Electrical connection number of poles	4-pin
Electrical connection coding	A-coded
Weight	0.284 kg

Material

Housing material Part No.

Polybutyleneterephthalate 240-320

Technical information

NC (Normally closed): signal current(0) ≥ 2.1 mA, Signal current (1) ≤ 1.2 mA Short circute monitoring < 100 Ω Open / Broken wire Detection < 0.05 mA Saftey Parameter output max. : Uo ≤ 9.6 V, Io ≤ 13 mA, Po 31 mA











Digital inputs NAMUR, Series G3 240-322

General series information AVENTICS G3 Electronic Fieldbus Platform

In today's highly automated machines, the **AVENTICS Series G3 electronic fieldbus** valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/ O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.



Technical data

Version Note E/A capable I/O module version Number of I/O connections Number of inputs Certificates ATEX ID

Min. ambient temperature Max. ambient temperature Operational voltage electronics Operating voltage, actuators Power supply for actuators Total current for actuators I/O modules Socket (female), M12 connection with I/O digital inputs NAMUR 8 inputs 8 ATEX II (1G) Ex ia IIC Ga II (1D) Ex ia IIIC Da -20 °C 50 °C 24 V DC 24 V DC 24 V DC 24 V DC



Protection	class
Diagnosis	

Weight

Material

Housing material Part No. IP65 Short circuit Broken wire 0.284 kg

Polybutyleneterephthalate 240-322

Technical information

Short circute monitoring < 100 Ω Open / Broken wire Detection < 0.05 mA Saftey Parameter output max. : Uo ≤ 9.6 V , Io ≤ 13 mA, Po 31 mA NC (Normally closed): signal current(0) ≥ 2.1 mA, Signal current (1) ≤ 1.2 mA









Connection piece 240-179

Mechanical accessories



Technical data

Industry For series Industrial G3 501 502 503

Material

Housing material Part No.

Polybutyleneterephthalate 240-179









Left end plate for Subbus G3 240-183

General series information Series G3

 In today's highly automated machines, the **AVENTICS Series G3 electronic fieldbus** valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/ O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.

Piles

Technical data

Industry	Industrial
Signal connection E/A thread size	M12x1
Signal connection E/A number of poles	4-pin
Min. ambient temperature	-10 °C
Max. ambient temperature	50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Total current for actuators	4 A
Protection class	IP65
Electrical connection	4
Weight	0.13 kg

Material

Housing material

polyethyleneterephthalate



Part No.



240-183







AVENTICS

End plate left

240-184

General series information Series G3

 In today's highly automated machines, the **AVENTICS Series G3 electronic fieldbus** valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/ O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.



Technical data

Industrial
-10 °C
50 °C
24 V DC
-10% / +10%
4 A
IP65
4
0.091 kg

Material

Housing material Part No. polyethyleneterephthalate 240-184











Right end plate for Subbus G3

General series information Series G3

 In today's highly automated machines, the **AVENTICS Series G3 electronic fieldbus** valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/ O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.



Technical data

Industry	Industrial
Signal connection E/A thread size	M12x1
Signal connection E/A number of poles	4-pin
Min. ambient temperature	-10 °C
Max. ambient temperature	50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Total output for valves	4 A
Protection class	IP65
Electrical connection	4
Weight	0.13 kg

Material

Housing material

polyethyleneterephthalate



Part No.

240-185









G3 Subbus module

240-241

General series information Series G3

 In today's highly automated machines, the **AVENTICS Series G3 electronic fieldbus** valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/ O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.



Technical data

Industry Note Min. ambient temperature Max. ambient temperature Max. number of valve positions Operational voltage electronics Electronics voltage tolerance Current consumption electronics Operating voltage, actuators Total current for actuators Protection class Diagnosis I/O module extension max. Electrical connection type Electrical connection size Industrial Power plug 7/8", 4-pin -10 °C 50 °C 32 24 V DC -10% / +10% 0.03 A 24 V DC 4 A IP65 Undervoltage 15 Plug 7/8"



Electrical connection number of poles Weight

Material

Housing material Part No.

polyethyleneterephthalate 240-241

4-pin 0.235 kg









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Right end plate for G3 Standalone 240-255

General series information Series G3

 In today's highly automated machines, the **AVENTICS Series G3 electronic fieldbus** valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/ O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.



Technical data

Industry	Industrial
Min. ambient temperature	-10 °C
Max. ambient temperature	50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Total output for valves	4 A
Protection class	IP65
Electrical connection	4
Weight	0.071 kg

Material

Housing material Part No. polyethyleneterephthalate 240-255











Wireless auto-recovery module, series G3 240-382

Series G3



Technical data

Industry Min. ambient temperature Max. ambient temperature Part No. Industrial -10 °C 50 °C 240-382





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Efficient pneumatic solutions, our program: cylinders and drives, valves and valve systems, air supply management



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