

Field Attachable Valve Connectors
Molded Valve Connectors
Pneumatic Flow Control
PO Check Valves
Miniature Pneumatic Valves
Solenoids
Hazardous Location Solenoids



Key Model Catalogue

INNOVATION BY
NASSCONTROLS



Modular and Compact Electromagnetic Components

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MIDZISE MODULAR PNEUMATIC SOLENOIDS



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System 6

System 6 is the smallest of the modular solenoid operators as it is 16 mm wide. The modular design allows flexibility in matching the armatures, mounting, and coil styles to the specific application. System 6 is used as the solenoid pilot on pneumatic valves, but applications can be found in general industrial, medical, and other industries as stand alone valves. They are available in AC/DC voltages with pin and lead wire coil options. Multifunctions (2/2, 3/2, normally closed and normally open) are available.



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System 8

System 8 is the most popular modular solenoid operator size. This series has applications as solenoid pilots, mobile pneumatics, general industrial, medical, packaging and other areas. IP67 rating for moist applications is available. A multiple range of coil options, armatures, and mounting styles are available. Multifunctions (2/2, 3/2, normally closed and normally open) are available. Low power of less than 1 watt and cURus rated options are available.



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System 13

System 13 is the largest solenoid operator size and has the most flow of the modular solenoid operator systems. This series has applications in processing, general industrial, mobile pneumatics, and others. Multifunctions (2/2, 3/2, normally closed and normally open) are available. cURus rated options are available.

Note: We reserve the right to make product changes without notice.



SYSTEM 6 SOLENOID OPERATORS AND COILS

Features:

- Modular solenoid operator system
- Coil pin pattern meets ISO 15217 standard (Form C)
- AC/DC Voltages
- Power of 0.8 to 3.7 watts
- 2/2 and 3/2 normally closed and normally open functions
- Temperature range: -10° C to +50° C, Class F
- Operating pressure range: 1 bar to 10 bar
- Protection class: IP65

Options:

- Private labeling
- Manual override
- Form C pin pattern or lead wire termination
- Thermoplastic and Thermoset available

Applications:

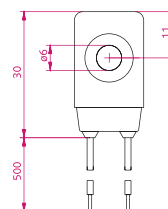
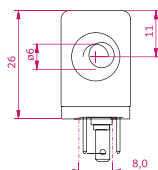
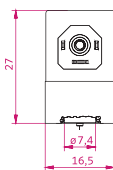
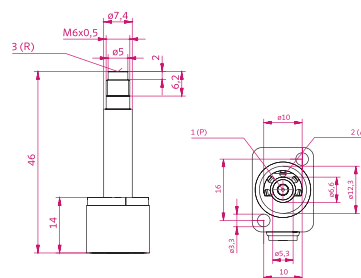
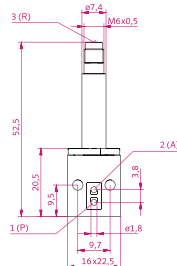
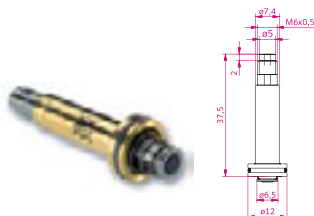
- Solenoid pilot for pneumatic valves
- Pneumatic cylinders
- Medical devices

SF solenoid operator
(back connection)

SF style

KR solenoid operator
(bottom connection)

KR style



Note: Form C coils requires a connector which can be found on pages 35 through 36 and 45 through 46. Other power levels and voltages available. Please consult nass controls for additional information.

Key Models – Armatures

Number	Function	Inlet/Ex Size	Pressure	Power Level	Volt Type	Material
106-010-0001	3/2 NC	1.0/1.1 mm	10 bar	4	AC/DC	Brass
106-010-0004	2/2 NC	consult factory		4	AC/DC	Brass

Note: Contact nass controls for valve seat cavity dimensions, drawing number 920-910-0019.

Key Models – Solenoid Operators

Number	Function	Inlet/Ex Size	Pressure	Power Level	Volt Type	Flow (SCFM)	Override
106-050-0007	3/2 NC	1.0/1.1 mm	10 bar	4 KR Style	AC/DC	1.13/1.41	Turn
106-050-0004	3/2 NC	1.0/1.1 mm	10 bar	4 KR Style	AC/DC	0.95/1.31	Turn

Note: Turn override is bistable (turn to actuate, turn to return).

Key Models – Coils

Number	Volts	Connection	Power	Power Level	Class	Protection Rating
106-030-0068	24 V DC	Form C pins	3.0 Watts	4	F	IP65
106-030-0067	120 V AC	Form C pins	3.7 VA	4	F	IP65
106-030-0039	24 V DC	Lead Wires	3.0 Watts	4	F	IP65

Key Models – Accessories

Number	Description	Number	Description	Number	Description
106-080-0001	Metal coil nut	106-080-0009	Spring washer	106-723-0001	SF gasket
900-841-0065	KR center o-ring	900-841-0077	KR outer o-ring	106-702-0001	Mounting plate

Note: Form C coils requires a connector which can be found on pages 35 through 36 and 46 through 49. Other power levels and voltages available. Please consult nass controls for additional information.



SYSTEM 8 SOLENOID OPERATORS AND COILS

Features:

- Modular solenoid operator system
- AC/DC Voltages
- Power of 0.7 to 3.7 watts
- 2/2 and 3/2 normally closed and normally open functions
- Temperature range: -10° C to +50° C, Class F standard
- Operating pressure range: 1 bar to 16 bar

Options

- Private labeling
- Manual override
- UL(cURus) approval (with Class F temperature rating only)
- Class H temperature rating
- Type B or Form A pin patterns, lead wire, M12, cable terminations
- -40° C using NBR or silicone seals

Applications:

- Solenoid pilot for pneumatic valves
- Pneumatic cylinders
- Medical devices

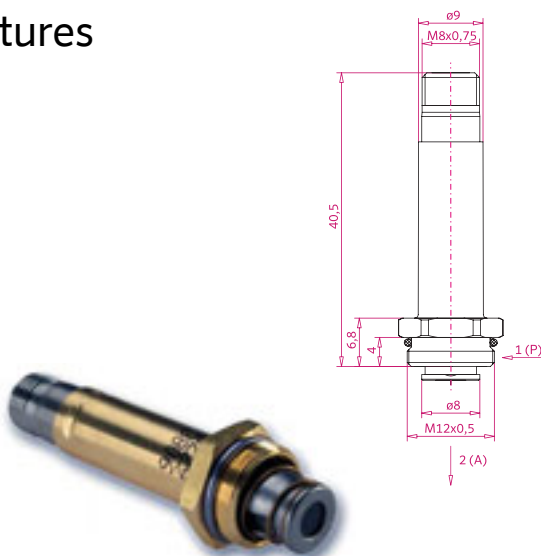


CNOMO
solenoid operator

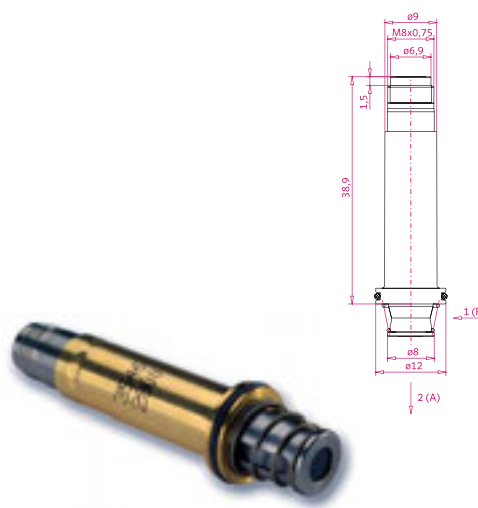


KR solenoid
operator with coil

Armatures



M12 threaded style



flange style

Note: Contact nass controls for valve seat cavity interface dimensions, drawing number 920-910-0020.

Key Models – Actuators

Number	Function	Inlet/Ex Size	Pressure	Power Level	Volt Type	Material	Style
108-010-0084	3/2 NC	0.8/1.0 mm	8 bar	1	DC	Brass	Flange
108-010-0010	3/2 NC	1.0/1.3 mm	10 bar	3	AC/DC	Brass	Flange
108-010-0007	3/2 NC	1.0/1.3 mm	10 bar	3	AC/DC	SS	Flange
108-010-0009	3/2 NC	1.3/1.5 mm	10 bar	4	AC/DC	Brass	Flange
108-010-0049	3/2 NC	1.3/1.5 mm	10 bar	4	AC/DC	SS	Flange
108-010-0001	3/2 NC	1.5/1.7 mm	10 bar	5	AC/DC	Brass	Flange
108-010-0060	3/2 NC	1.5/1.7 mm	10 bar	5	AC/DC	SS	Flange
108-010-0085	3/2 NC	0.8/1.0 mm	8 bar	1	DC	Brass	M12
108-010-0017	3/2 NC	1.0/1.3 mm	10 bar	3	AC/DC	Brass	M12
108-010-0053	3/2 NC	1.0/1.3 mm	10 bar	3	AC/DC	SS	M12
108-010-0016	3/2 NC	1.3/1.5 mm	10 bar	4	AC/DC	Brass	M12
108-010-0050	3/2 NC	1.3/1.5 mm	10 bar	4	AC/DC	SS	M12
108-010-0002	3/2 NC	1.5/1.7 mm	10 bar	5	AC/DC	Brass	M12
108-010-0045	3/2 NC	1.5/1.7 mm	10 bar	5	AC/DC	SS	M12
108-010-0006	2/2 NC	consult factory			AC/DC	Brass	Flange
108-010-0005	2/2 NC	consult factory			AC/DC	Brass	M12

Note: Please consult nass controls for additional information on 2/2 NC and NO actuators.

Note: We reserve the right to make product changes without notice.



SYSTEM 8 SOLENOID OPERATORS AND COILS

Key Models – Accessories

Number	Description
108-080-0025	Coil nut
108-080-0020	Side exhaust coil nut
900-841-0065	KR and GKR center o-ring
900-841-0077	KR outside o-ring
108-005-0024	GKR gasket
900-822-0037	KR mounting screw (2 required per KR)
108-702-0003	Flange armature mounting plate



coil nut



side exhaust coil nut



KR and GKR center o-ring



KR outside o-ring



GKR gasket



KR mounting screw



mounting plate



**Press in valve seat orifices are available.
Consult factory.**

Note: We reserve the right to make product changes without notice.



SYSTEM 8 SOLENOID OPERATORS AND COILS

Coils



Type B pin



M12 round



lead wires



cable



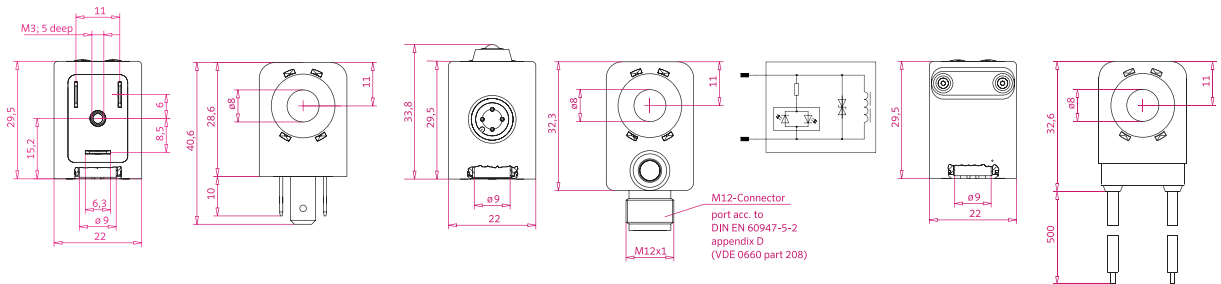
conduit lead wires

Key Models – 22 mm Coils

Number	Volts	Connection	Power	PL	Class	Approval	Circuit
108-030-0278	24 V DC	Type B pins	1.1 Watts	1	F	No	
108-030-0275	24 V DC	Type B pins	2.6 Watts	3	F	No	
108-030-1204*	24 V DC	Type B pins	2.6 Watts	3	F	cURus	
108-030-1207*	120 V DC	Type B pins	4.9 VA	3	F	cURus	
108-030-0258	24 V DC	Type B pins	4.8 Watts	4	F	No	
108-030-1209*	24 V DC	Type B pins	4.8 Watts	4	F	cURus	
108-030-1218*	120 V DC	Type B pins	6.8 VA	4	F	cURus	
108-030-0264	24 V DC	Type B pins	6.0 Watts	5	F	No	
108-030-1240*	24 V DC	Type B pins	6.0 Watts	5	F	cURus	
108-030-1219*	120 V DC	Type B pins	8.6 VA	5	F	cURus	
108-030-0788	24 V DC	Lead wires	2.6 Watts	3	F	No	
108-030-0784	24 V DC	Lead wires	4.8 Watts	4	F	No	
108-030-0786	24 V DC	Lead wires	6.0 Watts	5	F	No	
108-030-0240	24 V DC	M12 round	4.8 Watts	4	F	No	LED/Diode

Note: *The cURus coils are printed with the voltage and are required to be used with nass controls armature. Type B pin coils require a connector which are found on pages 33 through 34 and 42 through 44. Other power levels and voltages available. All coils are rated IP65. IP67 version available. Please consult nass controls for additional information.

Coils



Note: We reserve the right to make product changes without notice.



SYSTEM 8 SOLENOID OPERATORS AND COILS

Coils



Form A pin



M12 round



lead wires

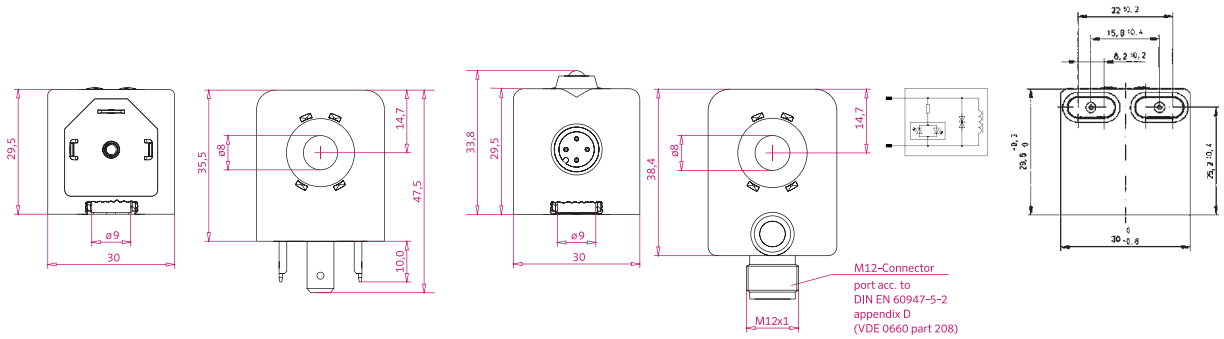
Key Models – 30 mm Coils

Number	Volts	Connection	Power	PL	Class	Approval	Circuit
108-030-0559	24 V DC	Form A pins	2.1 Watts	3	F	No	
108-030-1225*	24 V DC	Form A pins	2.1 Watts	3	F	cURus	
108-030-1248*	120 V DC	Form A pins	3.1 VA	3	F	cURus	
108-030-0560	24 V DC	Form A pins	2.7 Watts	4	F	No	
108-030-1603	24 V DC	Form A pins	2.7 Watts	4	H	No	
108-030-1227*	24 V DC	Form A pins	2.7 Watts	4	F	cURus	
108-030-1226*	120 V DC	Form A pins	3.6 VA	4	F	cURus	
108-030-0561	24 V DC	Form A pins	4.5 Watts	5	F	No	
108-030-0989	24 V DC	Form A pins	4.5 Watts	5	F	cURus	
108-030-1228*	120 V DC	Form A pins	4.3 VA	5	F	cURus	
108-030-0182	24 V DC	M12 round	4.5 Watts	5	F	No	LED/Diode

Note: *The cURus coils are printed with the voltage and are required to be used with nass controls armature. Form A pin coils require a connector which are found on pages 29 through 32 and 39 through 41. Other power levels and voltages available. All coils are rated IP65. IP67 version available. Please consult nass controls for additional information.

SYSTEM 8 SOLENOID OPERATORS AND COILS

Coils



Note: We reserve the right to make product changes without notice.



SYSTEM 13 SOLENOID OPERATORS AND COILS

CNOMO
Valve
System
and coil



Features:

- Modular solenoid operator system
- AC/DC Voltages
- Power of 2.0 to 15 watts
- Form A pin pattern
- 2/2 and 3/2 normally closed and normally open functions
- Temperature range: -10° C to +50° C, Class F
- Operating pressure range: 1 bar to 10 bar
- IP rating

Options:

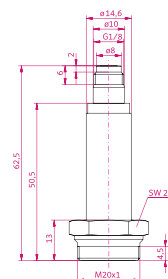
- Private labeling
- Manual override
- cURus approval
- Explosion proof

Applications:

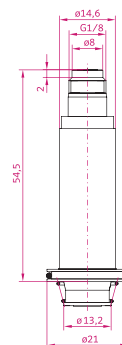
- Solenoid pilot for pneumatic valves
- Pneumatic cylinders
- Processing industry

Armatures

M20 threaded style



flange style



Note: Contact nass controls for valve seat cavity interface dimensions, drawing number 920-910-0020.

SYSTEM 13 SOLENOID OPERATORS AND COILS

Key Models – Armatures

Number	Function	Inlet/Ex Size	Pressure	Power-Level	Volt Type	Material	Style
113-010-0023	3/2 NC	2.0/2.5 mm	10 bar	2	AC/DC	SS	Flange
113-010-0025	3/2 NC	2.5/3.0 mm	10 bar	3	AC/DC	SS	Flange
113-010-0029	3/2 NC	3.0/3.5 mm	10 bar	4	AC/DC	SS	Flange
113-010-0022	3/2 NC	2.0/2.5 mm	10 bar	2	AC/DC	SS	M20
113-010-0024	3/2 NC	2.5/3.0 mm	10 bar	3	AC/DC	SS	M20
113-010-0028	3/2 NC	3.0/3.5 mm	10 bar	4	AC/DC	SS	M20
113-010-0032	2/2 NC	consult factory			AC/DC	SS	Flange
113-010-0031	2/2 NC	consult factory			AC/DC	SS	M20

Note: Please consult nass controls for additional information on 2/2 NC and NO armatures.

Key Models – Accessories

Number	Description
113-080-0004	Coil nut
113-080-0014	Spring washer
113-080-0005	Side exhaust coil nut
113-702-0001	Flange armature mounting plate
900-841-0085	O-ring for threaded armature
900-822-0045	CNOMO mounting screw



coil nut



spring washer



side exhaust coil nut



flange mounting plate



M20 armature o-ring



CNOMO mounting screw



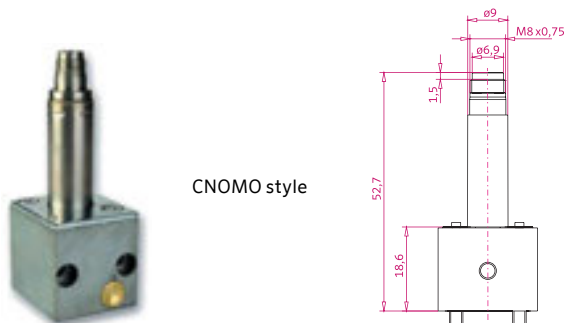
**Press in valve seat orifices are available.
Consult factory**

Note: We reserve the right to make product changes without notice.



SYSTEM 13 SOLENOID OPERATORS AND COILS

Solenoid Operators



CNOMO style

Key Models – Armatures

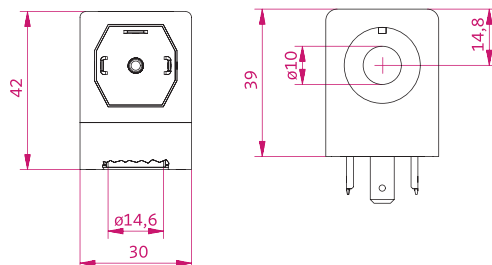
Number	Function	Inlet/Ex Size	Pressure	PL Flow (SCFM)	Volt Type	Body Style	Override
113-050-0004	3/2 NC	2.0/2.5 mm	10 bar	2 3.53/6.18	AC/DC	CNOMO	Turn
113-050-0017	3/2 NC	2.0/2.5 mm	10 bar	2 3.53/6.18	AC/DC	CNOMO	Push
113-050-0003	3/2 NC	2.5/3.0 mm	10 bar	3 5.74/7.06	AC/DC	CNOMO	Push
113-050-0007	3/2 NC	3.0/3.5 mm	10 bar	4 5.74/7.06	AC/DC	CNOMO	Turn
113-050-0011	3/2 NC	3.0/3.5 mm	10 bar	4 5.83/7.10	AC/DC	CNOMO	Push

Note: Push override is monostable (push/spring return). Turn override is bistable (turn to actuate, turn to return). Solenoid operators are available without override

Note: We reserve the right to make product changes without notice.

SYSTEM 13 SOLENOID OPERATORS AND COILS

Coils



Key Models – 30 mm Coils

Number	Volts	Connection	Power	Power Level	Class	Approval
113-030-0026	24 V DC	Form A pins	6.1 Watts	2	F	No
113-030-0322*	24 V DC	Form A pins	6.1 Watts	2	F	cURus
113-030-0323*	120 V DC	Form A pins	9.8 VA	2	F	cURus
113-030-0027	24 V DC	Form A pins	11.0 Watts	3	F	No
113-030-0296*	24 V DC	Form A pins	11.0 Watts	3	F	cURus
113-030-0297*	120 V DC	Form A pins	15.4 VA	3	F	cURus
113-030-0028	24 V DC	Form A pins	15.0 Watts	4	F	No

Note: *The cURus coils are printed with the voltage and are required to be used with nass controls armature. Form A pin coils require a connector which are found on pages 29 through 32 and 39 through 41. Other power levels and voltages available. All coils are rated IP65. IP67 version available. Please consult nass controls for additional information.

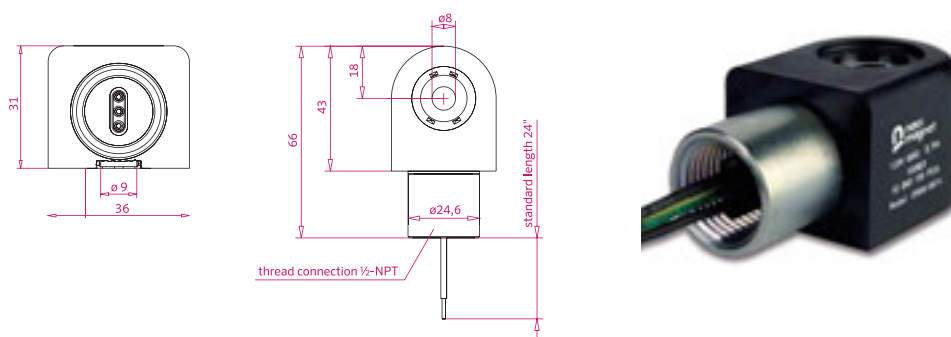


SYSTEM 8 AND 13 HARDOUS LOCATIONS

North American Hazardous Location Coils

The North American approved hazardous location coils consist of explosion proof and intrinsically safe methods of protection. The explosion proof coil is 36 mm wide with a ½ inch NPT conduit and lead wires. The intrinsically safe solenoid assembly is 30 mm wide (Form A pin pattern) and comes as an assembly with the IS coil, armature and connector. nass controls/nass magnet North American hazardous location approval agencies are CSA and Factory Mutual (FM).

North American Explosion Proof Coil - System 8 Series

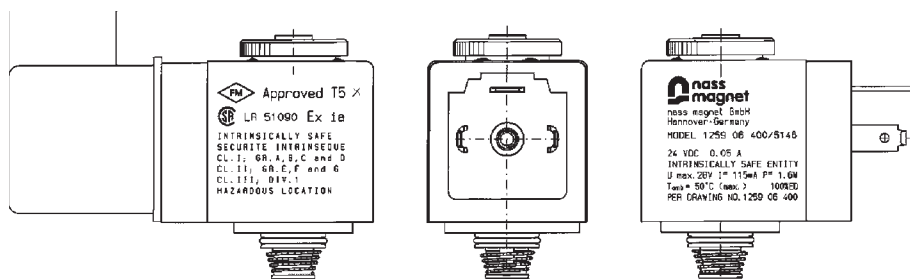


Approved hazardous location areas:

Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III
Class I, Division 2, Groups A, B, C and D

Note: please consult nass controls for ordering numbers and application information.

North American Intrinsically Safe Solenoid - System 8 Series



Approved hazardous location areas:

Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III

Note: The IS solenoid must be used with an approved safety barrier. Please consult nass controls for ordering numbers and application information.

Note: We reserve the right to make product changes without notice.
For use other than general industrial pneumatics, please consult factory.

SYSTEM 8 AND 13 HAZARDOUS LOCATION COILS

ATEX Hazardous Location Coils

ATEX approved hazardous location coils consist of explosion proof and intrinsically safe methods of protection. The explosion proof coil sizes are 22, 30, and 36 mm wide and is supplied with a cable. The intrinsically safe coil is 30 mm wide (Form A pin pattern) and requires a connector. Consult factory for ordering and application information.

ATEX Explosion Proof Coil – System 8 Series

The System 8 ATEX approved explosion proof coils are 22 and 30 mm wide. They come with an attached cable and have temperature ratings of T4, T5 or T6. The temperature rating is depended upon the chosen power level. Gas and dust protection are available. Ambient temperature -20° C to +50° C.

a) 22 mm coil size

II 2 G Ex mb IIC T5, T4, Gb;
II 2 D Ex mb tb IIIC T 95° C, T 130° C Db IP65

b) 30 mm coil size

II 2 G Ex mb IIC T6, T5, T4, Gb;
II 2 D Ex mb tb III C T 80° C, T 95° C, T 130° C Db IP65



ATEX Intrinsically Safe Coil – System 8 Series

The System 8 ATEX approved Intrinsically Safe coils are 30 mm wide with the Form A pin pattern and requires a connector. The IS coil must be used with an approved safety barrier. They have temperature ratings of T4 or T6. Gas and dust protection are available. Ambient temperature -40° C to +50° C for T6 and -40° C to +85° C for T4.

30 mm coil size

Ex II 2 G Ex ia IIB/IIC T6/T4, Gb



ATEX Explosion Proof Coil – System 13 Series

The System 13 ATEX approved explosion proof coils are 36 mm wide. They come with an attached cable. They have temperature ratings of T4, T5, or T6. The temperature rating is depended upon the chosen power level. Gas and dust protection are available. Ambient temperature -20° C to +50° C.

36 mm coil size

Ex II 2 G Ex mb IIC T6, T5, T4, Gb; Ex II 2 D Ex mb tb IIIC T 80° C, T 95° C, T 130° C Db IP65



Note: We reserve the right to make product changes without notice.
For use other than general industrial pneumatics, please consult factory.



SYSTEM 8 AND 13 HAZARDOUS LOCATION COILS

ATEX Hazardous Location Coils

Other ATEX Approved Coils

System 8 Non incensive additionally CCC Ex approved:
Ex II 3 G Ex nA IIC T5 Gb; Ex II 3 D Ex tc IIIC T 95° C Dc IP65



System 8 Low Temperature explosion proof coil:
Ambient temperature -50° C to +50° C.
Ex II 2 G EEx ma II T4, T5, T6; EX II 2 D IP65 T 80° C, T 95° C, T 130° C



System 13 Low Temperature explosion proof coil
additionally IECEx and CCC Ex approved:
Ambient temperature -40° C to +50° C for T6 and -40° C to +60° C for T4.
Ex II 2 G Ex e mb IIC T4, T6 Gb; EX II 2 D Ex tb mb IIIC T 130° C, T 80° C Db IP65, IP67



Note: We reserve the right to make product changes without notice.
For use other than general industrial pneumatics, please consult factory.

COMPACT PNEUMATIC SOLENOIDS



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System 3-10 (10 mm wide)

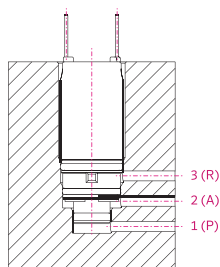
10 mm valves are perfect for small, compact space requirements for pneumatic applications in all areas including medical. They are available in DC voltages and require very low power (0.6 to 0.9 watts) yet still have a rated pressure of up to 10 bar. Multi functions (2/2, 3/2, normally closed and normally open) are available. On board electronics with LED and surge suppression for protection of sensitive equipment and easy viewing of the solenoid condition (on or off). The valves have worldwide acceptability as they meet the ISO 15218 standard.



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Cartridge 13 mm

The C-13 is a complete pneumatic, tubular valve that is mounted into a cavity. This unique design allows the valves to require less space and reduces the “clicking” noise of the solenoid. Manifolds can be custom designed by nass controls to specific requirements. The valves are perfect for medical, dental, solenoid pilots and other miniature pneumatic applications. They are available in DC voltages and require low power (0.8 to 1.2 watts) yet still have a rated pressure of up to 10 bar. Multi functions (2/2, 3/2, normally closed and normally open) and on board electronics are available.



Note: We reserve the right to make product changes without notice.
For use other than general industrial pneumatics, please consult factory.



10 MM MINIATURE SOLENOIDS

Features:

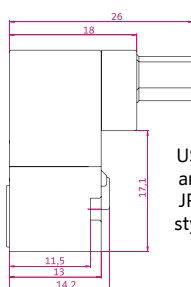
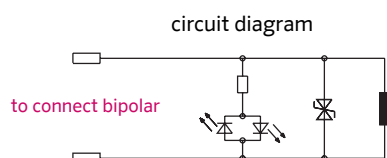
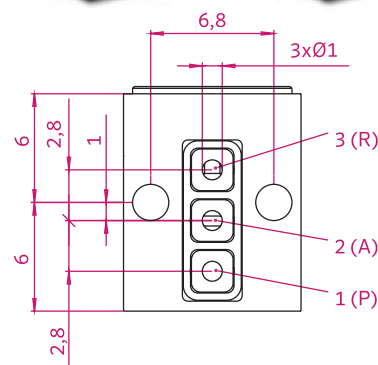
- Small, 10 mm wide
- Meets ISO 15218 standard
- DC Voltages, power of 0.6 to 0.9 watts
- 2/2 and 3/2 normally closed and normally open functions
- Temperature range: -10° C to +50° C
- Operating pressure range: 1 bar to 10 bar

Options:

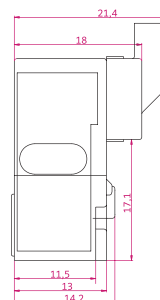
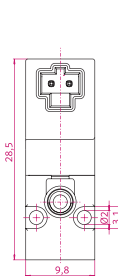
- Private labeling
- Manual override
- In line or 90° wire connection
- Built in LED and surge protection circuits
- Pins only - no wiring cap

Applications:

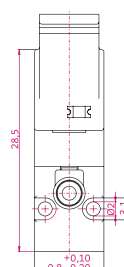
- Miniature pneumatics
- Pneumatic cylinders
- Medical devices



USC and JPC style



JPC in line style



Key Models

Number	Volts	Inlet/Ex Size	Pressure	Function	Flow (SCFM)	Wire Style	Power
130-070-0091	24 V DC	0.5/0.6 mm	8 bar	3/2 NC	0.25/0.32	USC	0.6 W
130-070-0092	24 V DC	0.5/0.6 mm	8 bar	3/2 NC	0.25/0.32	USC	0.6 W
130-070-0093	24 V DC	0.5/0.6 mm	10 bar	3/2 NC	0.25/0.32	USC	0.9 W
130-070-0143	24 V DC	0.5/0.6 mm	8 bar	3/2 NO	0.35/0.46	USC	0.6 W
130-070-0094	24 V DC	0.7/0.8 mm	8 bar	3/2 NC	0.25/0.32	USC	0.9 W
130-070-0096	24 V DC	0.5/0.6 mm	8 bar	3/2 NC	0.25/0.32	JPC	0.6 W
130-070-0134	24 V DC	0.7/0.8 mm	8 bar	3/2 NC	0.35/0.46	JPC	0.9 W
130-070-0155	24 V DC	0.5/0.6 mm	8 bar	3/2 NO	0.25/0.32	JPC	0.6 W
130-070-0125	24 V DC	0.7/0.8 mm	8 bar	3/2 NC	0.35/0.46	JPC in line	0.9 W

Accessories

616-202-0004	USC lead wire connector 300 mm
616-202-0002	JPC lead wire connector 300 mm
900-822-0033	mounting screw (2 required per valve)

wire connector



Note: Above valve models have the electrical connection opposite the pneumatic ports.
Other models and voltages available. Please consult nass controls for additional information.

13 MM CARTRIDGE SOLENOIDS

Features:

- Small, 13 mm in diameter
- Unique space saving design that mounts in the manifold
- DC Voltages
- Power of 0.8 to 1.2 watts
- 2/2 and 3/2 normally closed and normally open functions
- Temperature range: -10° C to +50° C
- Operating pressure range: 1 bar to 13 bar

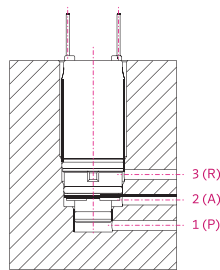


Options:

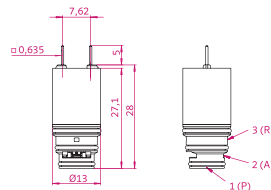
- Private labeling
- Circuit boards with LED indication
- Manual override

Applications:

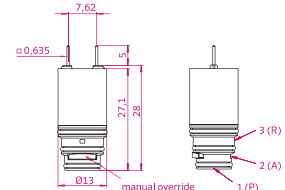
- Miniature pneumatics
- Pneumatic cylinders
- Medical devices



Cartridge 13 mm
without
manual override



Cartridge 13 mm
monostable
manual override



Key Models - C-13

Number	Volts	Inlet/Ex Size	Pressure	Function	Flow (SCFM)	Override	Power
121-070-0001	24 V DC	0.8/0.8 mm	10 bar	3/2 NC	0.53/0.60	No	0.8 W
121-070-0002	12 V DC	0.8/0.8 mm	10 bar	3/2 NC	0.53/0.60	No	0.8 W
121-070-0004	12 V DC	0.8/0.8 mm	13 bar	3/2 NC	0.53/0.60	No	1.0 W
121-070-0005	24 V DC	0.8/0.8 mm	8 bar	3/2 NO	0.53/0.60	No	0.8 W
121-070-0006	24 V DC	0.8/0.8 mm	10 bar	3/2 NC	0.53/0.60	Yes	0.8 W
121-070-0021	12 V DC	1.1/1.2 mm	8 bar	3/2 NC	0.85/0.95	No	1.2 W

Key Models - C-9

Number	Volts	Inlet/Ex Size	Pressure	Function	Flow (SCFM)	Override	Power
120-070-0001	24 V DC	0.5/0.8 mm	10 bar	3/2 NC	0.35/0.60	No	1.0 W
120-070-0002	24 V DC	0.5/0.8 mm	4.6 bar	3/2 NO	0.35/0.60	No	1.0 W

Note: Other models and voltages available. Please consult nass controls for additional flow information.



IO-LINK OVERVIEW



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Smart Connector

According to the digitization of the “last meters” in the automation technology, nass magnet as an expert for pneumatic valve actuators presents the innovative valve driver with IO-Link interface, integrated in in a valve connector.

Connected valves can be remotely controlled and monitored via the network using this peer to peer interface.

Using with a master, diagnostic data for the connector, solenoid coil and valve system can be retrieved, monitored and connected to cloud-based systems.

For the use in extreme environmental conditions nass magnet also offers robust versions in the protection classes IP65/IP67.



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IIoT Ethernet Master

The digitalisation and automation of industrial production is progressing. Making an innovative step, nass magnet, as an expert in modular and compact electromagnetic components, presents the new 4-port Ethernet IO-Link Master, focused on Industry 4.0 and IIoT, implemented in a new designed housing.

Connected sensors and actuators can be remotely controlled and monitored via the network using the Ethernet TCP/IP interface.

Using IIoT Master, data from sensors and actuators can be easily collected and transmitted to the IT/Cloud level, where the incoming information can be evaluated and stored.

Note: We reserve the right to make product changes without notice.

SMART CONNECTOR

Form A and Form B Industry - IO-Link Class A

- IO-Link interface
- DIN norm interface valve connector
- Quick and easy connection
- Status monitoring, RGB LED
- Power saving with PWM mode
- Parameterization through software
- Double switching cycle counter
- Diagnostic data
- Event messages
- Data storage
- Offline mode
 - pre-programmed timer and/or PWM
- IP67

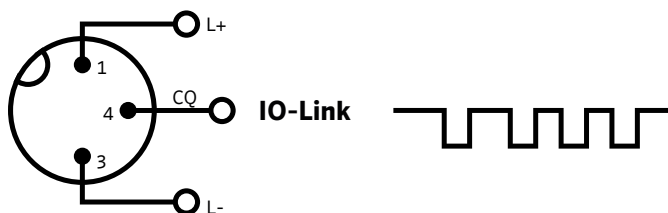


Technical data:

Series	Form A / Form B Industry
IO-Link master port type	Class A
Connection	M12-connector (3-pin)
Nominal voltage	24 V DC (10-30 V DC)
Output power	max. 500 mA (depending on the master)
Internal consumption	< 10 mA
Interface	IO-Link V1.1
Cycle time	2.8 ms
Process data	1/1 byte

Pin layout:

- Pin 1 - 24 V
Pin 3 - 0 V
Pin 4 - Switching and communication power (C/Q)
(IEC 60974-5-2)



Note: We reserve the right to make product changes without notice.



SMART CONNECTOR

Form A - IO-Link Class B

- IO-Link interface
- DIN norm interface valve connector
- Quick and easy connection
- Status monitoring, RGB LED
- Power saving with PWM mode
- Parameterization through software
- Double switching cycle counter
- Diagnostic data
- Event messages
- Data storage
- Offline mode
- pre-programmed timer and/or PWM
- IP67

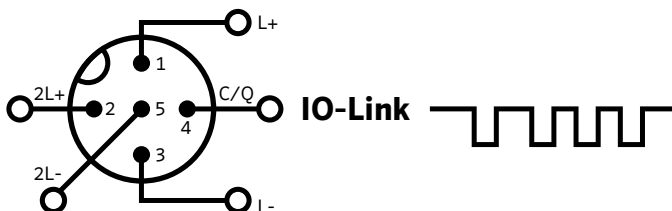


Technical data:

Series	Form A according to DIN EN 175301-803
IO-Link master port type	Class B
Connection	M12-connector (5-pin)
Nominal voltage	24 V DC (18-30 V DC)
Output power	max. 48 W (depending on the master)
Internal consumption	< 10 mA
Interface	IO-Link V1.1
Cycle time	2.8 ms
Process data	1/1 byte

Pin layout:

- Pin 1 - 24 V
- Pin 2 - 24 V (UA)
- Pin 3 - 0 V
- Pin 4 - Switching and communication power (C/Q)
- Pin 5 - 0 V (UA)



Note: We reserve the right to make product changes without notice.

4-PORT ETHERNET IO-LINK MASTER

Focused on Industry 4.0 and IIoT

- IO-Link V1.1.3 compatible Master
- Ethernet/TCP-IP interface
- DHCP or static IP address configuration
- Standardized JSON mapping
- Node-RED integration supported
- 4 independent powered IO-Link Class A ports
- IP67 Protection
- MQTT supported



IO-Link V 1.1.3. fully backward IO-Link compatibility

Ethernet/TCP-IP interface, which is globally accepted and highly supported, making it easy to integrate with existing systems or to build a new system.

Technical data:

Operating voltage 24 V DC (18-30 V DC)
 Interface Ethernet
 Protocol HTTP, TCP/IP, JSON, MQTT (optional)
 Number of ports 4 x M12 - IO-Link
 Max. input / output Programmable 8 / 4
 IO-Link Master port type Class A / COM 1, COM 2, COM 3
 Output power 500 mA / port
 Output power - total max. 2A
 IP rating IP65/67
 Housing material PA6 GF20 FR
 Ambient temperature -20° C to +60° C

Protocol Ethernet TCP/IP
 Voltage 24 V DC (18-30 V DC)
 Current max. 500 mA / port
 IO-Link port Class A
 IO-Link revision V. 1.1.3.
 Protection IP65/67

Power	Ethernet	IO-Link (Class A)
1: +24 VDC1	1: TX +	: +24 VDC
2: -	2: RX +	2: DI
3: GND	3: TX -	3: GND
4: -	4: RX -	4: C/Q IO-Link
	5: -	5: -

connector drawings

Note: We reserve the right to make product changes without notice.



CECC/EN 175301-803 FORM A ISO 4400/DIN 43 650 A

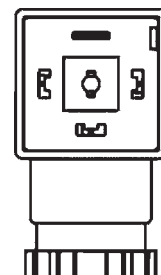
Connector with molded Cable

Features:

- Ground in 3, 6, 9 or 12 h position
- NBR profile or flat gasket
- 2 + and 3 + ground connections

Options:

- cCSAus rated
- Silicone gasket
- Stainless steel center fixing screw
- Black, gray, translucent housings
- Single packed with private label option
- Custom wired



Ground shown
in 12 h position

Applications:

- Hydraulic and pneumatic valves, pressure switches

Materials:

Contacts	CuZn, Cu/Sn- plated
Terminal block	PA6 + 30 % GF, black
Housing.....	PA6 + 30 % GF; PA6 (translucent)
Screws	Steel 37, zinc-plated
Gasket	Nitrile, profile or flat

General Data, without Circuit:

Operating voltage	$U_{C_{max}}$ 250 V
Max. operating current	10 A
Contact resistance	≤ 4 mOhm
Cable diameter	6-8 mm and 8-10 mm
Cable gland size	M20
Wire cross section	max. 1.5 mm ²
Protection class IEC 60 529	IP65
Ambient temperature.....	-25° C to +80° C
Operating temperature	Nitrile -40° C to +90° C Silicone -40° C to +125° C
Flammability, UL	94 HB Standard
Torque	strain relief nut max. 1.8 Nm $\pm$ 0.2 Nm center fixing screw..... max. 0.4 Nm $\pm$ 0.2 Nm contact screw max. 0.2 Nm $\pm$ 0.2 Nm

Note: We reserve the right to make product changes without notice.



CECC/EN 175301-803 FORM A ISO 4400/DIN 43 650 A

Field attachable Connectors

General Data, with Circuit:

Max. operating current	1.5 A
Power consumption	max. 5mA
Contact resistance	≤ 4 mOhm
Polarity protection	circuits 1, 3 and 5 yes; circuits 2 and 4 no
Cable diameter	6-8 mm and 8-10 mm
Wire cross section	max. 1,5mm ²
Protection class IEC 60 529	IP65
Ambient temperature.....	-25° C to +80° C (PA6 + 30% GF); -25° C to +60° C (PA6)
Operating temperature	Nitrile -40° C to +90° C / Silicone -40° C to +125° C
Flammability, UL	94 HB Standard
Drop-off delay	circuit 1 = none; 2, 3 and 4 = approx. 30 ms; 5 = approx. 3 ms
Torque	strain relief nut max. 1,8 Nm ø 0,2 Nm center fixing screw max. 0,4 Nm ø 0,2 Nm contact screw..... max. 0,2 Nm ø 0,2 Nm

Note: We reserve the right to make product changes without notice.

CECC/EN 175301-803 FORM A ISO 4400/DIN 43 650 A

Connector with molded Cable

Features:

- Ground in 6 and 12 h positions
- IP67
- Integrated gasket
- Identification plate

Options:

- Stainless steel center fixing screw
- Single packed with private label option

Materials:

Contacts	CuZn, Cu/SN-plated
Terminal block	PA6 + 30 % GF, black
Housing	PUR Elastomer
Screws	Steel 37, zinc-plated
Gasket	integrated - no external gasket required



General Data, without Circuit:

Operating voltage	UC _{max} 250 V
Max. operating current	10 A
Contact resistance	≤ 4 mOhm
Cable	H05VV-F3G 0.75 mm ²
Wire colors	1 = brown, 2 = blue, ground = yellow/green
Ground position	6/12 h
Protection class IEC 60 529	IP67
Ambient temperature	-25° C to +90° C
Torque	center fixing screw.....max. 0.4 Nm oe 0.1 Nm

General Data, with Circuit:

Max. operating current	1.1 A
Power consumption	max. 5 mA
Contact resistance	≤ 4 mOhm
Polarity protection	circuits 1 and 3 yes
Cable	H05VV-F3G 0.75 mm ²
Wire colors	1 = brown, 2 = blue, ground = yellow/green
Ground position	6/12 h
Protection class IEC 60 529	IP67
Ambient temperature	-25° C to +90° C
Drop-off delay	1 = none; 3 approx. 30 ms
Torque	center fixing screw.....max. 0.4 Nm oe 0.1 Nm

Note: We reserve the right to make product changes without notice.



➔ CECC/EN 175301-803 Form A ISO 4400/DIN 43 650 A

Key Models – with molded Cable

No Circuit

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Black	2- meter	0-250 V	611-202-0335
Black	5- meter	0-250 V	611-202-0364

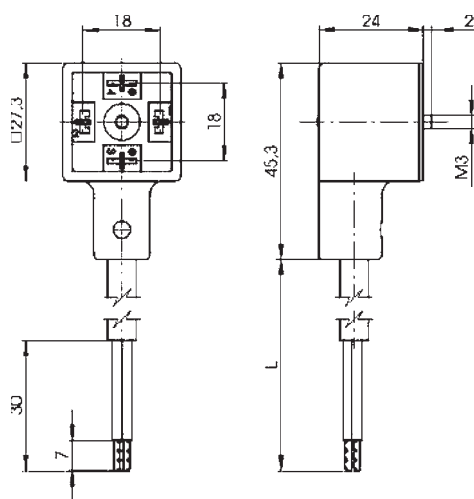
LED + VDR Circuit # 3 (AC/DC)

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Smoked Grey	2- meter	24 V	611-202-0375
Smoked Grey	5- meter	24 V	611-202-0276
Smoked Grey	2- meter	110-230 V	611-202-0377
Smoked Grey	5- meter	40-230 V	611-202-0378

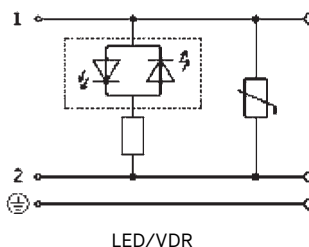
Dimensions in mm:



with circuit



without circuit



Note: Other circuit options, voltages and cable lengths available.

INDUSTRIAL TYPE B

Connector with molded Cable

Features:

- Ground in 12 h position
- IP67
- Integrated gasket
- Identification plate

Options:

- Stainless steel center fixing screw
- Individually packaged

Applications:

- Pneumatic solenoid valves

Materials:

Contacts	CuZn, Cu/SN-plated
Terminal block	PA6 + 30 % GF, black
Housing	PUR Elastomer
Screws	Steel 37, zinc-plated
Gasket	integrated - no external gasket required

General Data, without Circuit:

Operating voltage	$U_{C_{max}}$ 250 V
Max. operating current	10 A
Contact resistance	≤ 4 mOhm
Cable	H05VV-F3G 0.75 mm ²
Wire colors	1 = brown, 2 = blue, ground = yellow/green
Ground position	6/12 h
Protection class IEC 60 529	IP67
Ambient temperature	-25° C to +90° C
Torque	center fixing screw.....max. 0.4 Nm oe 0.1 Nm

General Data, with Circuit:

Max. operating current	1.1 A
Power consumption	max. 5 mA
Contact resistance	≤ 4 mOhm
Polarity protection	circuits 1 and 3 yes
Cable	H05VV-F3G 0.75 mm ²
Wire colors	1 = brown, 2 = blue, ground = yellow/green
Ground position	6/12 h
Protection class IEC 60 529	IP67
Ambient temperature	-25° C to +90° C
Drop-off delay	1 = none; 3 approx. 30 ms
Torque	center fixing screw.....max. 0.4 Nm oe 0.1 Nm



Note: We reserve the right to make product changes without notice.



Industrial Type B

Key Models – Field Attachable

No Circuit

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Black	5- meter	0-250 V	612-202-0226

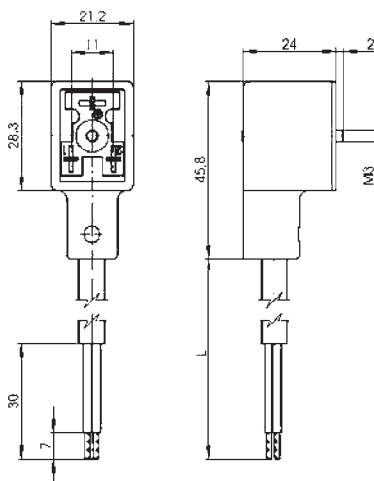
LED + VDR Circuit # 3 (AC/DC)

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Smoked color	5- meter	12-24 V	612-202-0238
Smoked color	2- meter	12-24 V	612-202-0237
Smoked color	5- meter	110-230 V	612-202-0240
Smoked color	2- meter	110-230 V	612-202-0239

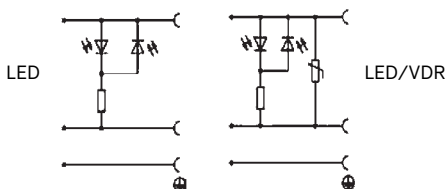
Dimensions in mm:



with circuit



without circuit



Note: Other circuit options, voltages and cable lengths available.

CECC/EN 175301-803 FORM C ISO 15217/DIN 43 650 C

Connector with molded Cable

Features:

- Ground in 6 and 12 h positions
- IP67
- PVC cable
- Integrated gasket

Options:

- Stainless steel center fixing screw
- Single packed with private label option

Applications:

- Pneumatic valves, transducers

Materials:

Contacts	CuZn, Cu/SN-plated
Terminal block	PA6 + 30 % GF, black
Housing	TPU
Screws	Steel 37, zinc-plated
Gasket	integrated - no external gasket required

General Data, without Circuit:

Operating voltage	$U_{C_{max}}$ 250 V
Max. operating current	6 A
Contact resistance	≤ 4 mOhm
Cable	H03VVF 0.50 mm ²
Wire colors	1 = brown, 2 = blue, ground = yellow/green
Ground position	6/12 h
Protection class IEC 60 529	IP67
Ambient temperature	-25° C to +90° C
Torque	center fixing screw.....max. 0.4 Nm oe 0.1 Nm

General Data, with Circuit:

Max. operating current	1.5 A
Power consumption	max. 5 mA
Contact resistance	≤ 4 mOhm
Polarity protection	circuits 1 and 3 yes
Cable	H03VVF 0.50 mm ²
Wire colors	1 = brown, 2 = blue, ground = yellow/green
Ground position	6/12 h
Protection class IEC 60 529	IP67
Ambient temperature	-25° C to +90° C
Drop-off delay	1 = none; 3 approx. 30 ms
Torque	center fixing screw.....max. 0.4 Nm oe 0.1 Nm



Note: Form C center fixing screw: M2.5 x 24



➔ CECC/EN 175301-803 Form C ISO 15217/DIN 43 650 C

Key Models – with molded Cable

No Circuit

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Black	2- meter	0-250 V	615-202-0014

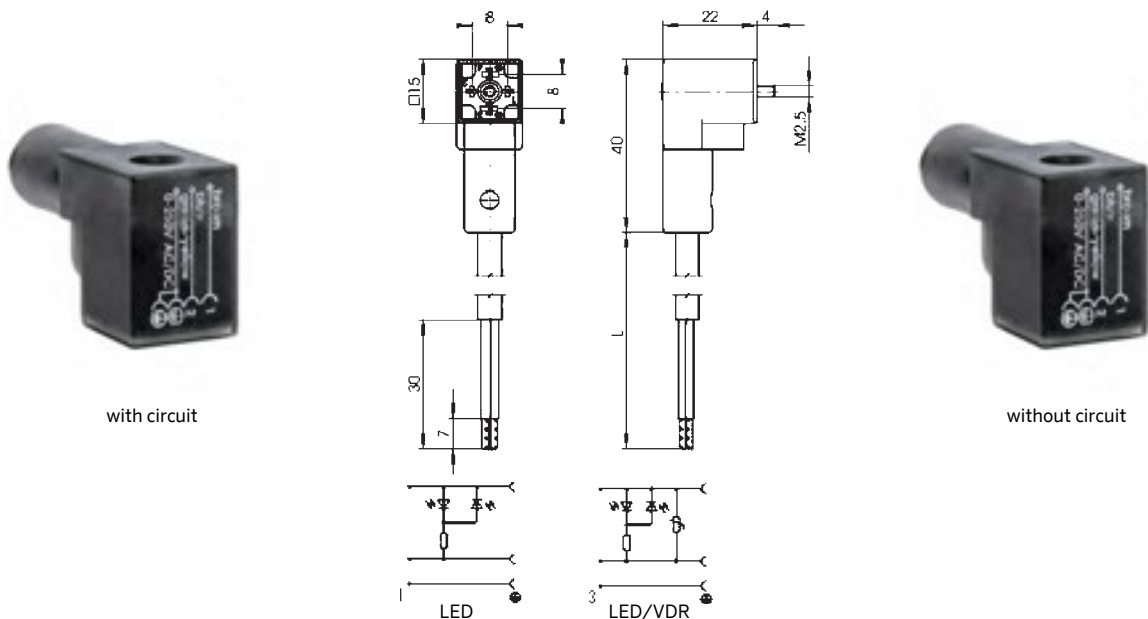
LED Circuit # 1 (AC/DC)

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Smoked color	1- meter	12 V	615-202-0019
Smoked color	2- meter	12 V	615-202-0056
Smoked color	1- meter	24 V	615-202-0049
Smoked color	2- meter	24 V	615-202-0059
Smoked color	1- meter	110 V	615-202-0050
Smoked color	2- meter	110 V	615-202-0062

LED + VDR Circuit # 3 (AC/DC)

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Smoked color	2- meter	12 V	615-202-0016
Smoked color	2- meter	24 V	615-202-0017
Smoked color	2- meter	110 V	615-202-0018

Dimensions in mm:



Note: Other circuit options, voltages and cable lengths available.

MICRO TYPE C

Connector with molded Cable

Features:

- Ground in 6 and 12 h positions
- IP67
- PVC cable
- Integrated gasket

Options:

- Stainless steel center fixing screw
- Single packed with private label option

Applications:

- Pneumatic valves, transducers

Materials:

Contacts	CuZn, Cu/SN-plated
Terminal block	PA6 + 30 % GF, black
Housing	TPE
Screws	Steel 37, zinc-plated
Gasket	integrated - no external gasket required

General Data, without Circuit:

Operating voltage	$U_{C_{max}}$ 250 V
Max. operating current	6 A
Contact resistance	≤ 4 mOhm
Cable	H03VVF 0.50 mm ²
Wire colors	1 = brown, 2 = blue, ground = yellow/green
Ground position	6/12 h
Protection class IEC 60 529	IP67
Ambient temperature	-25° C to +90° C
Torque	center fixing screw.....max. 0.4 Nm oe 0.1 Nm

General Data, with Circuit:

Max. operating current	1.5 A
Power consumption	max. 5 mA
Contact resistance	≤ 4 mOhm
Polarity protection	circuits 1 and 3 yes
Cable	H03VVF 0.50 mm ²
Wire colors	1 = brown, 2 = blue, ground = yellow/green
Ground position	6/12 h
Protection class IEC 60 529	IP67
Ambient temperature	-25° C to +90° C
Drop-off delay	1 = none; 3 approx. 30 ms
Torque	center fixing screw.....max. 0.4 Nm oe 0.1 Nm



Note: Micro Type C center fixing screw: M3 x 24



➤ Micro Type C

Key Models – with molded Cable

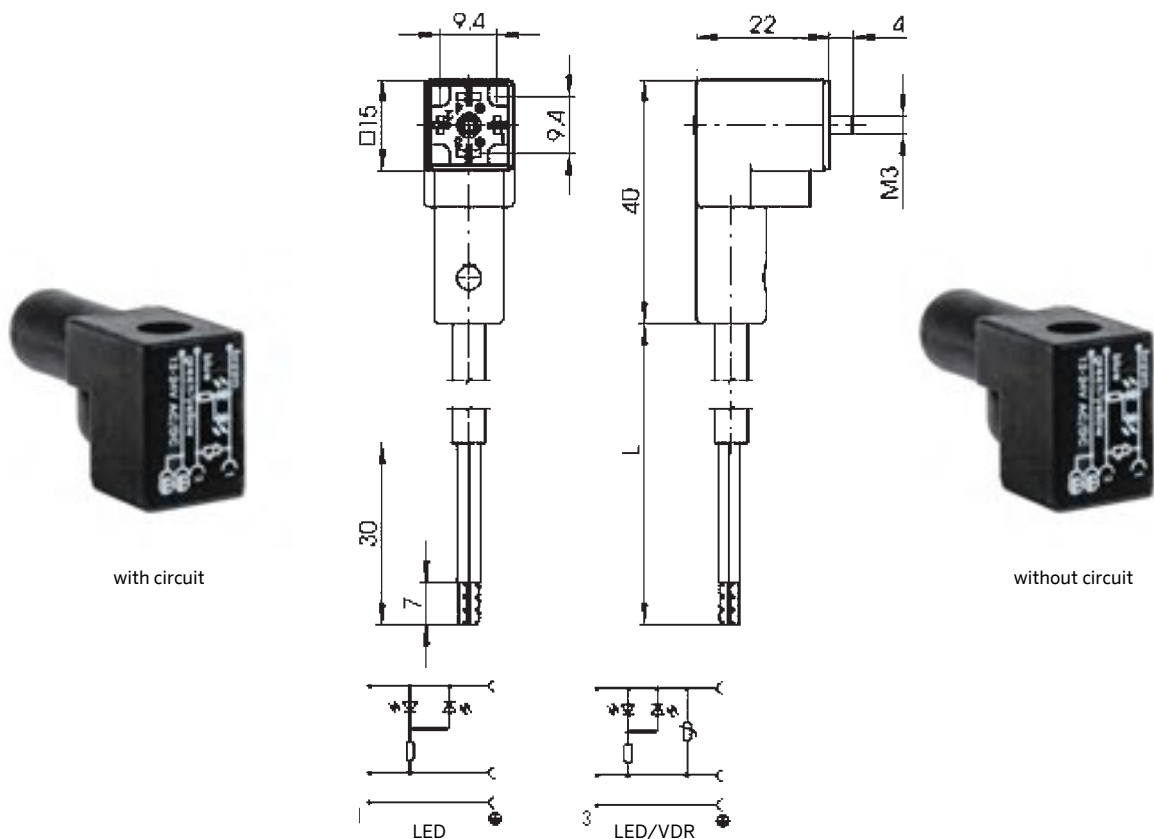
No Circuit

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Black	2-meter	0-250 V	614-202-0044

LED + VDR Circuit # 3 (AC/DC)

2 + Ground/Color	Cable Length	Volts	Integrated Gasket
Smoked	2-meter	24 V	614-202-0054

Dimensions in mm:



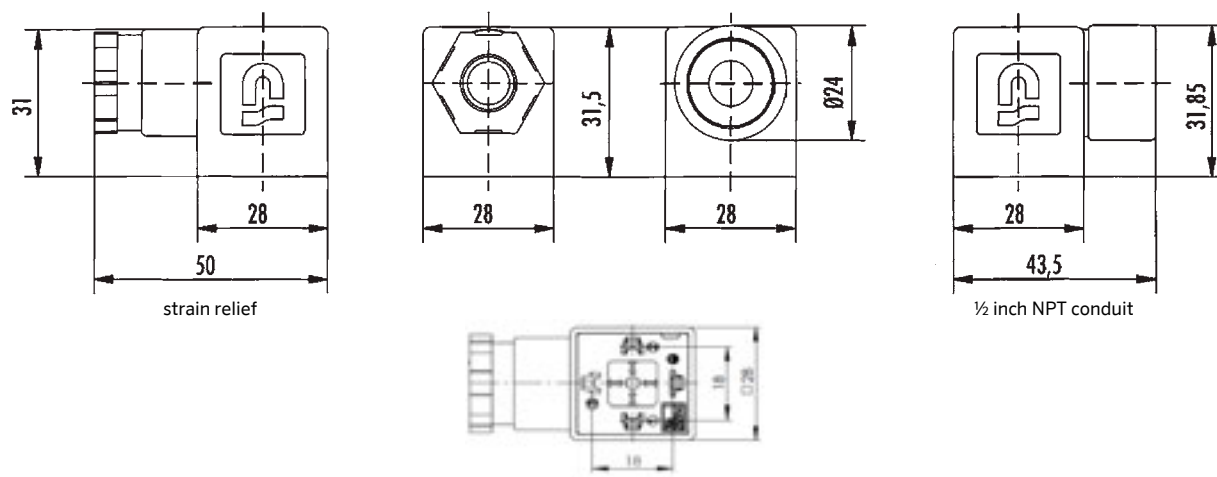
Note: Other circuit options, voltages and cable lengths available.

Key Models - Field Attachable

No Circuit

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	6-8 mm cable	0-250 V	611-201-0019	611-201-0034
Gray	6-8 mm cable	0-250 V	611-201-0086	consult factory
Black	8- 10 mm cable	0-250 V	611-201-0042	consult factory
Gray	8- 10 mm cable	0-250 V	611-201-0088	consult factory
Black	½ inch conduit	0-250 V	611-201-0076	611-201-0080
Black	6-8 mm cable	0-250 V	611-201-0029	consult factory
Black	8- 10 mm cable	0-250 V	611-201-0052	consult factory
Black	½ inch conduit	0-250 V	611-201-0077	consult factory
3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	6-8 mm cable	0-250 V	611-201-0225	consult factory
Gray	6-8 mm cable	0-250 V	611-201-0261	consult factory
Black	8- 10 mm cable	0-250 V	611-201-0234	611-201-0240
Gray	8- 10 mm cable	0-250 V	611-201-0263	consult factory
Black	½ inch conduit	0-250 V	611-201-0256	611-201-0260
Black	½ inch conduit	0-250 V	611-201-0258	consult factory

Dimensions in mm:



Key Models - Field Attachable

LED Circuit # 1 (AC/DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	6 - 8 mm cable	12 V	611-202-0089	consult factory
Opaque	8 - 10 mm cable	12 V	611-201-0187	consult factory
Opaque	6 - 8 mm cable	24 V	611-201-0129	611-201-0161
Opaque	8 - 10 mm cable	24 V	611-201-0188	consult factory
Opaque	6 - 8 mm cable	110 V	611-201-0130	611-201-0163
Opaque	8 - 10 mm cable	110 V	611-201-0189	consult factory
Opaque	6 - 8 mm cable	230 V	611-201-0131	611-201-0164
Opaque	8 - 10 mm cable	230 V	611-201-0190	consult factory

LED + Diode Circuit # 2 (DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	6 - 8 mm cable	24 V	611-201-0134	611-201-0165
Opaque	8 - 10 mm cable	24 V	611-201-0191	consult factory

LED + VDR Circuit # 3 (AC/DC)

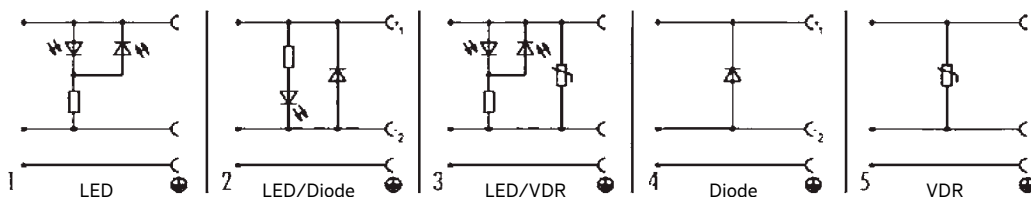
2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	6 - 8 mm cable	12 V	611-201-0135	consult factory
Opaque	6 - 8 mm cable	24 V	611-201-0136	611-201-0166
Opaque	8 - 10 mm cable	24 V	611-201-0192	consult factory
Opaque	6 - 8 mm cable	110 V	611-201-0137	611-201-0167
Opaque	8 - 10 mm cable	110 V	611-201-0193	consult factory
Opaque	6 - 8 mm cable	230 V	611-201-0138	611-201-0168

Diode Circuit # 4 (DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	6 - 8 mm cable	12-230 V	611-201-0020	consult factory
Opaque	8 - 10 mm cable	12-230 V	611-201-0043	consult factory

VDR Circuit # 5 (AC/DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	6 - 8 mm cable	12-230 V	611-201-0020	consult factory
Opaque	8 - 10 mm cable	12-230 V	611-201-0043	consult factory



Note: Other circuit and voltage options available. Circuits available in ½ inch NPT conduit housing style.

CECC/EN 175301-803 FORM A ISO 4400/DIN 43 650 A

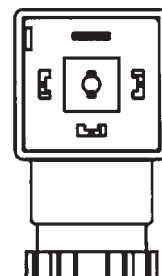
Specialty Circuits

Features:

- Ground in 3, 6, 9 or 12 h position
- NBR profile or flat gasket
- 2 + and 3 + ground connections

Options:

- Silicone gasket
- Stainless steel center fixing screw
- Black, gray, translucent housings
- Single packed with private label option
- Custom wired



Ground shown
in 12 h position

Applications:

- Hydraulic and pneumatic valves, pressure switches

Key Models – Field Attachable

Rectifier + VDR Circuit # 8 (AC/DC)

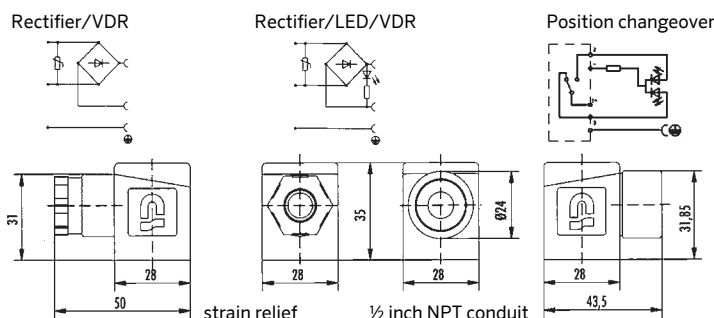
2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	6 – 8 mm cable	0-230 V	611-201-1147	consult factory

Rectifier + LED + Circuit # 9 (AC/DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black/opaque cap	6 – 8 mm cable	24 V	611-201-0303	consult factory
Black/opaque cap	8 – 10 mm cable	24 V	611-201-0318	consult factory
Black/opaque cap	6 – 8 mm cable	110 V	611-201-0919	consult factory

Position Changeover Circuit # 15 (for Pressure Switches) (AC/DC)

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black/opaque cap	6 – 8 mm cable	24 V	611-201-0374	611-201-0829
Black/opaque cap	6 – 8 mm cable	110 V	611-201-0375	consult factory



Dimensions in mm:

Note: Position change over connector has a dual colored LED to indicate the position of the pressure switch. It changes color when the switch changes positions.



INDUSTRIAL TYPE B

Features:

- Ground in 6 or 12 h position
- NBR profile or flat gasket

Options:

- Silicone gasket
- Stainless steel center fixing screw
- Black and translucent housings
- Single packed with private label option
- Custom wired

Applications:

- Pneumatic solenoid valves

Materials:

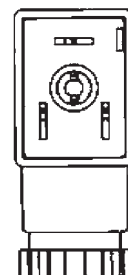
Contacts	CuZn, Cu/SN-plated
Terminal block	PA6 + 30 % GF, black
Housing	PA6 + 30 % GF, PA6 (translucent)
Screws	Steel 37, zinc-plated
Gasket	Nitrile, profile or flat

General Data, without Circuit:

Operating voltage	$U_{C_{max}}$ 250 V
Max. operating current	10 A
Contact resistance	≤ 4 mOhm
Cable diameter	4-6 mm and 6-8 mm
Wire cross section	max. 1.5 mm ²
Protection class IEC 60 529	IP65
Ambient temperature	-25° C to +80° C
Operating temperature	Nitrile -40° C to +90° C / Silicone -40° C to +125° C
Flammability, UL	94 HB Standard
Torque	strain relief nut.....max. 1.8 Nm oe 0.2 Nm
	center fixing screwmax. 0.4 Nm oe 0.2 Nm
	contact screwmax. 0.2 Nm oe 0.2 Nm

General Data, with Circuit:

Max. operating current	1.5 A
Power consumption	max. 5 mA
Contact resistance	≤ 4 mOhm
Polarity protection	circuits 1, 3 and 5 yes; circuits 2 and 4 no
Cable diameter	4-6 mm and 6-8 mm
Wire cross section	max. 1.5 mm ²
Protection class IEC 60 529	IP65
Ambient temperature	-25° C to +80° C (PA6 + 30 % GF); -25° C to +60° C (PA6)
Operating temperature	Nitrile -40° C to +90° C / Silicone -40° C to +125° C
Flammability, UL	94 HB Standard
Drop-off delay	1 = none, 2, 3 and 4 approx. 30 ms; 5 = approx. 3 ms
Torque	strain relief nut.....max. 1.8 Nm oe 0.2 Nm
	center fixing screwmax. 0.4 Nm oe 0.2 Nm
	contact screwmax. 0.2 Nm oe 0.2 Nm



Ground shown
in 12 h position

Note: We reserve the right to make product changes without notice.

➤ Industrial Type B

Key Models – Field Attachable

No Circuit

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	6-8 mm cable	0-250 V	612-201-0019	612-201-0113
Black	½ inch conduit	0-250 V	612-201-0498	
Black, cURus	6-8 mm cable	0-250 V	612-201-0510	
Black, cURus	½ inch conduit	0-250 V	612-201-0485	

LED Circuit # 1 (AC/DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	6-8 mm cable	12 V	612-201-0089	612-201-0113
Opaque	6-8 mm cable	24 V	612-201-0090	612-201-0114
Opaque	6-8 mm cable	110 V	612-201-0091	612-201-0116
Opaque	6-8 mm cable	230 V	612-201-0092	612-201-0117

LED + Diode Circuit # 2 (DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	6-8 mm cable	24 V	612-201-0084	612-201-0118

LED + VDR Circuit # 3 (AC/DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	6-8 mm cable	24 V	612-201-0094	612-201-0119
Opaque	6-8 mm cable	110 V	612-201-0095	612-201-0121
Opaque	6-8 mm cable	230 V	612-201-0096	612-201-0122

Diode Circuit # 4 (DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	6-8 mm cable	12-230 V	612-201-0020	612-201-0034

VDR Circuit # 5 (AC/DC)

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	6-8 mm cable	12 V	612-201-0039	consult factory
Black	6-8 mm cable	24 V	612-201-0021	consult factory
Black	6-8 mm cable	110 V	consult factory	612-201-0035
Black	6-8 mm cable	230 V	consult factory	612-201-0036

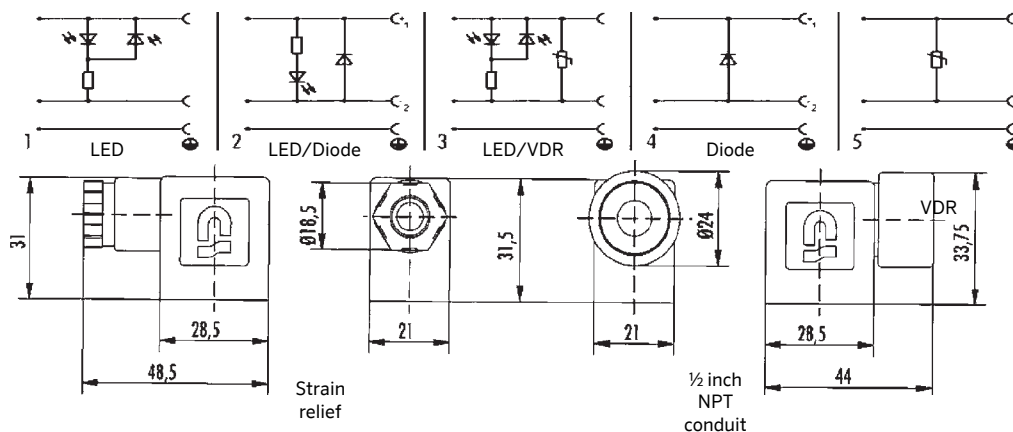
Note: Other circuit and voltage options available. Circuits available in ½ inch NPT conduit housing style.



➤ Industrial Type B

Key Models – Field Attachable

Dimensions in mm:



Note: Other circuit and voltage options available. Circuits available in 1/2 inch NPT conduit housing style.

CECC/EN 175301-803 FORM C ISO 15217/DIN 43 650 C

Features:

- Ground in 3, 6, 9 or 12 h position
- NBR profile or flat gasket
- 2 + and 3 + ground connections

Options:

- Silicone gasket
- Stainless steel center fixing screw
- Black and translucent housings
- Single packed with private label option
- Custom wired

Applications:

- Pneumatic valves, transducers

Materials:

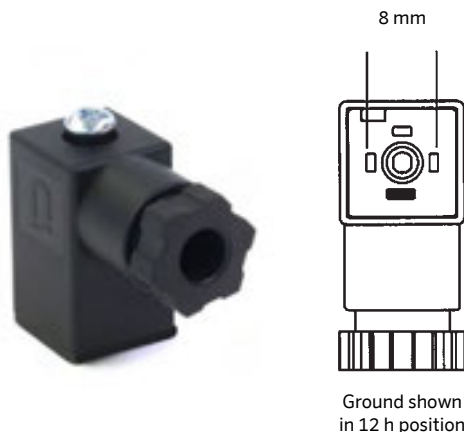
Contacts	CuZn, Cu/SN-plated
Terminal block	PA6 + 30 % GF, black
Housing	PA6 + 30 % GF, PA6 (translucent)
Screws	Steel 37, zinc-plated
Gasket	Nitrile, profile or flat

General Data, without Circuit:

Operating voltage	$U_{C_{max}}$ 250 V
Max. operating current	6 A
Contact resistance	≤ 4 mOhm
Cable diameter	4-6 mm
Wire cross section	max. 0.75 mm ²
Protection class IEC 60 529	IP65
Ambient temperature	-25° C to +80° C
Operating temperature	Nitrile -40° C to +90° C / Silicone -40° C to +125° C
Flammability, UL	94 HB Standard
Torque	strain relief nut.....max. 1.6 Nm oe 0.2 Nm center fixing screwmax. 0.4 Nm oe 0.2 Nm contact screwmax. 0.2 Nm oe 0.2 Nm

General Data, with Circuit:

Max. operating current	1 A
Contact resistance	≤ 4 mOhm
Polarity protection	circuits 1, 3 and 5 yes; circuits 2 and 4 no
Cable diameter	4-6 mm
Wire cross section	max. 1.5 mm ²
Protection class IEC 60 529	IP65
Ambient temperature	-25° C to +80° C (PA6 + 30 % GF); -25° C to +60° C (PA6)
Operating temperature	Nitrile -40° C to +90° C / Silicone -40° C to +125° C
Flammability, UL	94 HB Standard
Drop-off delay	1 = none, 2, 3, 4 and 5 approx. 30 ms
Torque	strain relief nut.....max. 1.6 Nm oe 0.2 Nm center fixing screwmax. 0.4 Nm oe 0.2 Nm contact screwmax. 0.2 Nm oe 0.2 Nm



Note: Form C center fixing screw: M2.5 x 27



Key Models – Field Attachable

No Circuit

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	4-6 mm cable	0-250 V	615-201-0001	615-201-0002

No Circuit

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	4-6 mm cable	0-250 V	consult factory	615-201-0011

LED Circuit # 1 (AC/DC)

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	4-6 mm cable	24 V	615-201-0110	615-201-0122
Opaque	4-6 mm cable	110 V	615-201-0092	615-201-0083

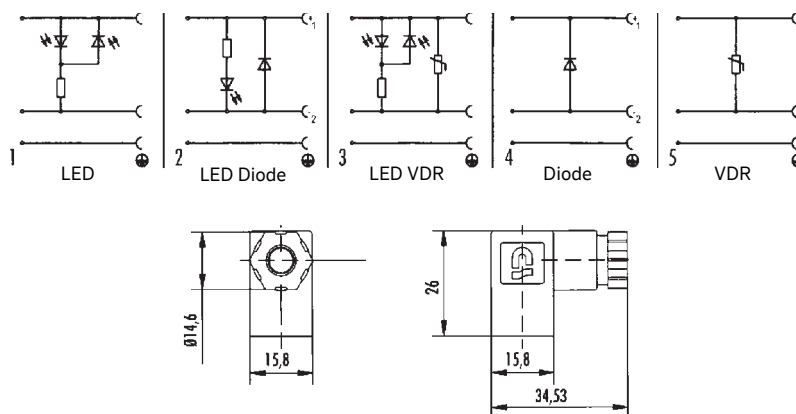
LED + VDR Circuit # 3 (AC/DC)

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	4-6 mm cable	24 V	consult factory	615-201-0078
Opaque	4-6 mm cable	110 V	consult factory	615-201-0112
Opaque	4-6 mm cable	230 V	consult factory	615-201-0101

VDR Circuit # 5 (AC/DC)

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	4-6 mm cable	24 V	consult factory	615-201-0103

Dimensions in mm:



Note: Other circuit and voltage options available.

MICRO TYPE C

Features:

- Ground in 3, 6, 9 or 12 h position
- NBR profile or flat gasket
- 2 + and 3 + ground connections

Options:

- Silicone gasket
- Stainless steel center fixing screw
- Black and translucent housings
- Single packed with private label option
- Custom wired

Applications:

- Pneumatic valves, transducers

Materials:

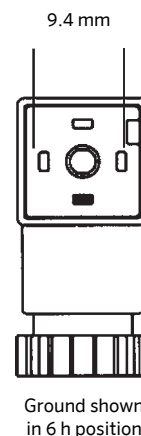
Contacts	CuZn, Cu/SN-plated
Terminal block	PA6 + 30 % GF, black
Housing	PA6 + 30 % GF, PA6 (translucent)
Screws	Steel 37, zinc-plated
Gasket	Nitrile, profile or flat

General Data, without Circuit:

Operating voltage	$U_{C_{max}}$ 250 V
Max. operating current	6 A
Contact resistance	≤ 4 mOhm
Cable diameter	4-6 mm
Wire cross section	max. 0.5 mm ²
Protection class IEC 60 529	IP65
Ambient temperature	-25° C to +80° C
Operating temperature	Nitrile -40° C to +90° C / Silicone -40° C to +125° C
Flammability, UL	94 HB Standard
Torque	strain relief nut.....max. 1.6 Nm oe 0.2 Nm
	center fixing screwmax. 0.4 Nm oe 0.2 Nm
	contact screwmax. 0.2 Nm oe 0.2 Nm

General Data, with Circuit:

Max. operating current	1 A
Contact resistance	≤ 4 mOhm
Polarity protection	circuits 1, 3 and 5 yes; circuits 2 and 4 no
Cable diameter	4-6 mm
Wire cross section	max. 0.5 mm ²
Protection class IEC 60 529	IP65
Ambient temperature	-25° C to +80° C (PA6 + 30 % GF); -25° C to +60° C (PA6)
Operating temperature	Nitrile -40° C to +90° C / Silicone -40° C to +125° C
Flammability, UL	94 HB Standard
Drop-off delay	1 = none, 2, 3, 4 and 5 approx. 30 ms
Torque	strain relief nut.....max. 1.6 Nm oe 0.2 Nm
	center fixing screwmax. 0.4 Nm oe 0.2 Nm
	contact screwmax. 0.2 Nm oe 0.2 Nm



Note: Micro Type C center fixing screw: M3 x 27



Micro Type C

Key Models – Field Attachable

No Circuit

2 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	4-6 mm cable	0-250 V	614-201-0001	614-201-0002

No Circuit

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Black	4-6 mm cable	0-250 V	614-201-0139	614-201-0046

LED Circuit # 1 (AC/DC)

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	4-6 mm cable	24 V	614-201-0109	614-201-0034
Opaque	4-6 mm cable	110 V	consult factory	614-201-0035

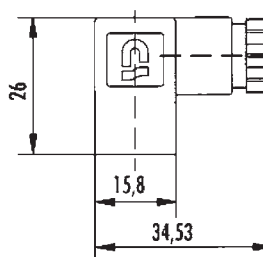
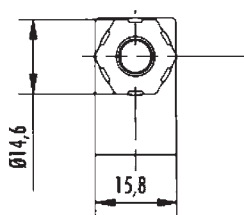
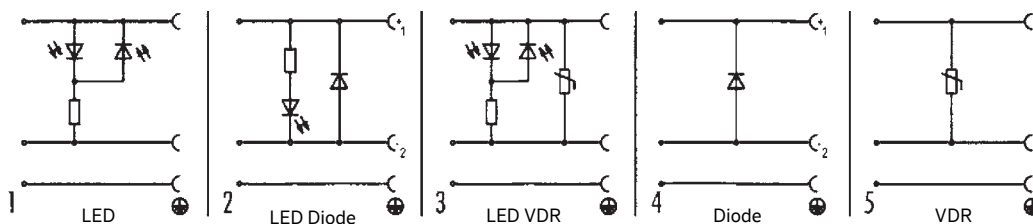
LED + VDR Circuit # 3 (AC/DC)

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	4-6 mm cable	24 V	614-201-0032	614-201-0036
Opaque	4-6 mm cable	110 V	614-201-0033	consult factory

VDR Circuit # 5 (AC/DC)

3 + Ground/Color	Style	Volts	Profile Gasket	Flat Gasket
Opaque	4-6 mm cable	24 V	614-201-0005	consult factory
Opaque	4-6 mm cable	110 V	614-201-0006	consult factory

Dimensions in mm:



Note: Other circuit and voltage options available.

FUNCTION FITTINGS

Right Angle Flow Controls

Right angle flow controls for metering and controlling the speed of air cylinders. Metered out or metered in versions available.

Pilot Operated Check Valves

When pilot pressure is present, the PO check valve allows free flow. When pilot pressure is not present, the PO check valve blocks flow in either direction. Perfect for use with air cylinders and other pneumatic motion devices.

Pressure Regulators

Right angle relieving and non-relieving regulators. Perfect for tabletop pneumatic systems.



Right Angle Flow Controls
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Pilot Operated Check Valves
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Pressure Regulators
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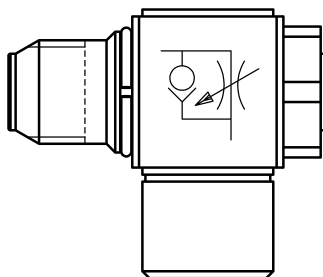
Note: We reserve the right to make product changes without notice.
For use other than general industrial pneumatics, please consult factory.



RIGHT ANGLE FLOW CONTROL VALVES

Features:

- Metered out function
- NPTF or G metric threads
- NPTF male threads have sealant applied
- Slot or knob adjust
- Threaded banjo or push-to-connect fitting
- Temperature range: -10° C to +70° C
- Operating pressure range: 1 bar to 10 bar

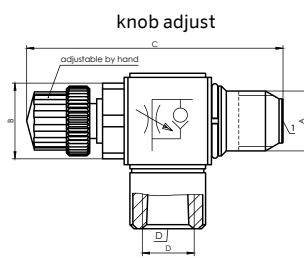
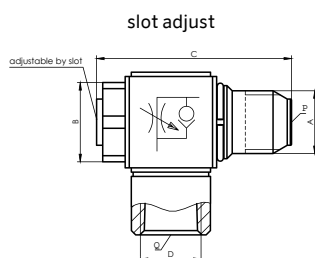


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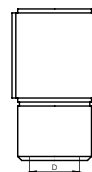
- Printed with valve symbol
- Single packed with private label option

Applications:

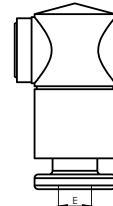
- Pneumatic cylinders



threaded banjo



PTC fitting



Slot Adjust - Metered Out

A	B	C	Max Tightening	Torque	D	Part Number Threaded banjo	E	Part Number PTC fitting
10-32 UNF	SW8	21.0	1.5 Nm	1.1 lbs/ft	10-32 UNF	300-151-0010	5/32"	300-151-0011
1/8 NPTF	SW13	32.0	15 Nm	11.0 lbs/ft	1/8 NPTF	300-151-0043	5/32"	300-151-0046
1/4 NPTF	SW17	41.0	20 Nm	14.7 lbs/ft	1/4 NPTF	300-151-0076	1/4"	300-151-0047
3/8 NPTF	SW22	47.0	30 Nm	22.1 lbs/ft	3/8 NPTF	300-151-0101	1/4"	300-151-0078
1/2 NPTF	SW27	58.0	40 Nm	29.5 lbs/ft	1/2 NPTF	300-151-0114	3/8"	300-151-0079
							3/8"	300-151-0104
								NA

Knob Adjust - Metered Out

A	B	C	Max Tightening	Torque	D	Part Number Threaded banjo	E	Part Number PTC fitting
1/8 NPTF	SW13	47.5	15 Nm	11.0 lbs/ft	1/8 NPTF	300-151-0049	5/32"	300-151-0050
1/4 NPTF	SW17	58.0	20 Nm	14.7 lbs/ft	1/4 NPTF	300-151-0081	1/4"	300-151-0051
3/8 NPTF	SW22	66.5	30 Nm	22.1 lbs/ft	3/8 NPTF	300-151-0106	1/4"	300-151-0082
1/2 NPTF	SW27	51.0	40 Nm	29.5 lbs/ft	1/2 NPTF	300-151-0117	3/8"	300-151-0083
							3/8"	300-151-0108
								NA

Note: Numbers shown are without printing. Please contact nass controls for units printed with valve symbol and metric G threaded models. Please contact nass controls for Flow Controls flow data charts.

PILOT OPERATED CHECK VALVES

Features:

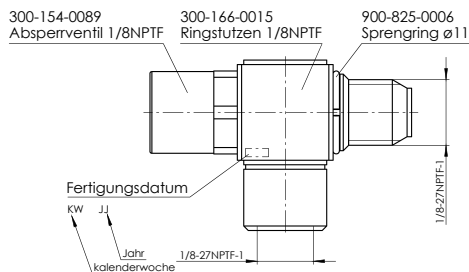
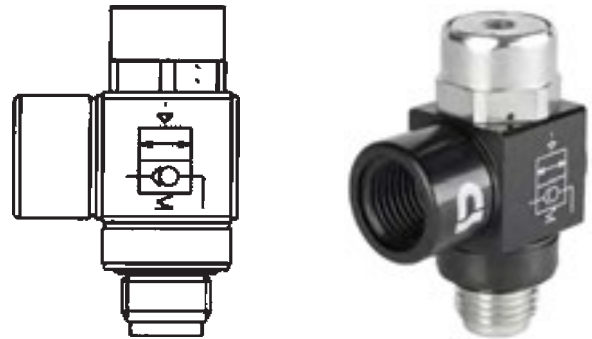
- NPTF or G metric threads
- NPTF male threads have sealant applied
- Threaded banjo or push-to-connect fitting
- Temperature range: -10° C to +70° C
- Operating pressure range: 1 bar to 10 bar

Options:

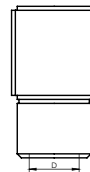
- Printed with valve symbol
- Manual override
- Single packed with private label option

Applications:

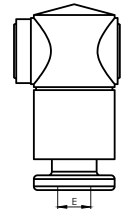
- Pneumatic cylinders



threaded banjo



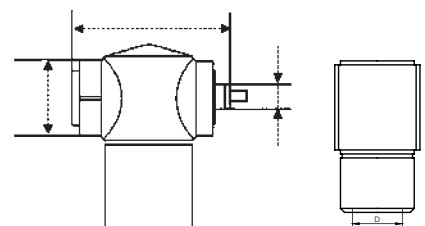
PTC fitting



A	B	C	Max Tightening	Torque	D	Part Number Threaded banjo	E	Part Number PTC fitting
1/8 NPTF	SW13	41.0	7 Nm	5.1 lbs/ft	1/8 NPTF	300-154-0013	1/4"	300-154-0017
1/4 NPTF	SW17	48.0	15 Nm	11.0 lbs/ft	1/4 NPTF	300-154-0031	1/4"	300-154-0033
3/8 NPTF	SW22	55.0	20 Nm	14.7 lbs/ft	3/8 NPTF	300-154-0046	3/8"	300-154-0049
3/8 NPT*	SW22	55.0	20 Nm	14.7 lbs/ft	3/8 NPTF	300-154-0047		NA
1/2 NPTF	SW27	65.5	20 Nm	14.7 lbs/ft	1/2 NPTF	300-154-0062		NA
1/2 NPT*	SW27	65.5	20 Nm	14.7 lbs/ft	1/2 NPTF	300-154-0063		NA

* 1/8" with pilot port, all other models are 10-32UNF pilot port

Note: Numbers shown are without printing. Please contact nass controls for units printed with valve symbol and metric G threaded models.



A	B	C	Max Tightening	Torque	D	Part Number
10-32 UNF	SW8	21.0	1.5 Nm	1.1 lbs/ft	10-32 UNF	300-714-0004
10-32 UNF	SW8	21.0	1.5 Nm	1.1 lbs/ft	1/4" Tube	300-714-0005

Note: Please contact nass controls for PO Check Valves flow data charts.



PRESSURE REGULATORS

Features:

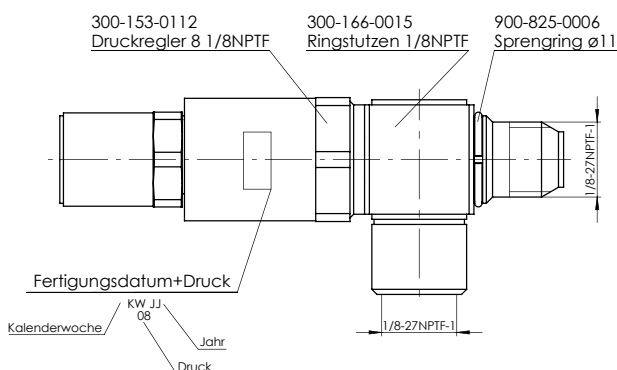
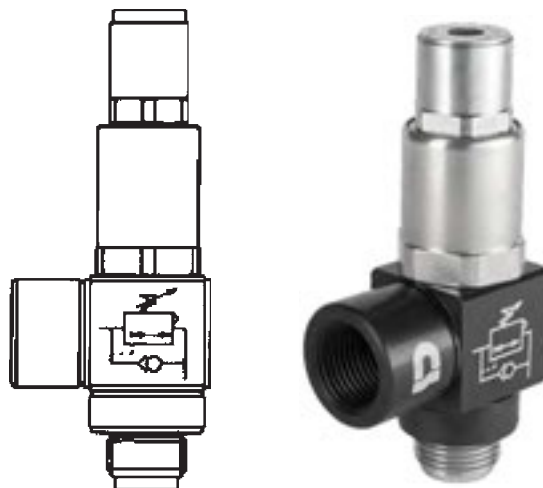
- NPTF or G metric threads
- NPTF male threads have sealant applied
- Relieving and non relieving models available
- Threaded banjo or push-to-connect fitting
- Temperature range: -10° C to +70° C
- Primary pressure range: 1 bar to 16 bar
- Secondary pressure range: 1 bar to 8 bar

Options:

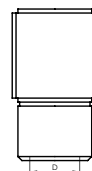
- Printed with valve symbol
- Manual override
- Single packed with private label option

Applications:

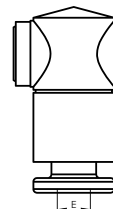
- Table top pneumatic systems



threaded banjo



PTC fitting



Relieving Regulator

A	B	C	Max Tightening	Torque	D	Part Number Threaded banjo	E	Part Number PTC fitting
1/8 NPTF	SW17	73.0	7 Nm	11.0 lbs/ft	1/8 NPTF	300-153-0020	1/4"	300-153-2001
1/4 NPTF	SW17	81.0	15 Nm	14.7 lbs/ft	1/4 NPTF	300-153-0049	1/4"	NA

Note: Numbers shown are without printing. Please contact nass controls for units printed with valve symbol, non relieving regulators and G metric threaded models. Please contact nass controls for Regulator flow data charts.

nass controls, located in New Baltimore, Michigan, is the North American manufacturing facility as well as the sales, distribution and marketing office for **nass magnet GmbH**, Hannover, Germany and **nass magnet Hungária Kft.**, Veszprém, Hungary. **nass controls marketing area is North, Central and South America as well as Australia.**

Our product offering features pneumatic 2/2 and 3/2 solenoid valves and coils used in industrial, mobile, processing and other industries. We offer a wide range of miniature solenoid valves, pressure switches, transducers and other industrial electrical components complement the solenoid valve products. The connectors are available with and without cable and in a variety of circuit options. The product offering also includes pneumatic function fitting products such as right angle flow controls, pressure regulators and pilot operated check valves.

In addition, nass controls offers services such as custom wiring of connectors, harness assemblies, individual packaging and private labeling.



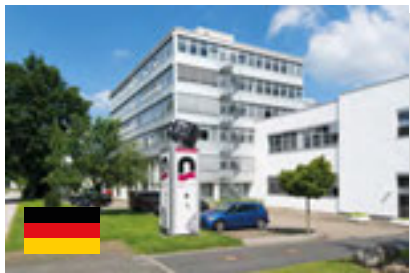
Sales Center

We will be gladly at your disposal for any questions regarding the sale and use of our products.

The fast way to the matching department and your contact partner:

☎ **+49 511 6746-5999**

✉ **info@nassmagnet.com**



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