Intelligent safety solenoid with PST
Neles™ ValvGuard™ VG9000

Neles ValvGuard VG9000 is a new generation intelligent safety solenoid with partial stroke testing features. It can be used both with emergency shutdown (ESD) and emergency venting (ESV) valves. Its unique and advanced functions and features are specially designed for safety applications. Together with HART & FOUNDATION Fieldbus communication it offers unbeatable value for our customers with increased efficiency, reliability and safety.

VG9000 is IEC 61508 compliant up to SIL 3, certified by TÜV Rheinland. Based on the automatic partial stroke testing (PST) and other diagnostics data, VG9000 increases safety and plant safety targets can be reached more economically than with traditional solutions. Also, unnecessary and expensive manual testing can be avoided. This increases safety and can simultaneously create major cost savings at a plant.

VG9000 HART version is operated by 4-20 mA signal and the diagnostics part of the device can be alive all the time. VG9000 FOUNDATION fieldbus version communication is done via the bus. Safety part is isolated from the fieldbus part and is powered with the separate binary 24 V DC signal. This is a true user benefit and gives maximum availablity of the diagnostics information. VG9000 is thus capable to record emergency trips with graph and key figures related to it. The availability of the safety valves is maximized through unique diagnostics features, directly integrated into the device functionality. Diagnostic information is presented in an easily understandable form using a graphical FDT/DTM user interface, such as DeviceCare. This enables the predictive maintenance of potentially failing valve assemblies before they have chance to impact on the process.

Key features
- Valve and self tests
- Partial stroke test (automatic or manual)
- Self test for internal electronics and pneumatics

- Emergency trip test
- High pneumatic capacity eliminates the need of additional instumentation in most cases
- Device is powered during the trip and can collect diagnostics information
- Easy of use local / remote operation
- Advanced device diagnostics including
- Self-diagnostics
- Online diagnostics
- Performance diagnostics
- HART communication (rev 6 or 7)
- FOUNDATION Fieldbus communication

How to order

Neles ValvGuard VG9000

1.	2.	3.	4.	5.	6.	7.	8.	9.	-
VG	9	2	15	H	E6	T	/	I02	

*) Slash shall always be marked in places shown above.

1. sign	PRODUCT GROUP
VG	Neles ValvGuard VG9000, intelligent safety solenoid. TÜV Rheinland SIL 3 certified according to IEC 61508.

2. sign	SERIES CODE
9	Series 9000 intelligent safety solenoid with reinmy work shaft and adapter included in mounting kits. When VG9000 is separate delivery, to 4) adapter kit needs to be ordered separately. (see type coding for accessories).

3. sign	ENCLOSURE
9	IP66 / NEMA 4X. Standard temperature range -40 °C to +85 °C / -40 °C to +185 °F. M20 x 1.5 conduit entry, 1 pcs (VG9_H), 2 pcs (VG9_F) in extension housing.
2	Standard epoxy coated anodized aluminum enclosure.
3	Full 316 stainless steel enclosure, no glass window. Glass window available as an option (use 7. sign "Y").

4. sign	SPOOL VALVE	CONNECTIONS
12	Restricted capacity Stroke volume of actuator 0.3 - 6.7 dm³	S, C1, C2 = 1/4 NPT
15	Standard capacity Stroke volume of actuator > 0.6 dm³	S, C1, C2 = 1/4 NPT
35	High capacity Stroke volume of actuator > 3.5 dm³ Not applicable to 3. sign "3"	S, C1, C2 = 1/2 NPT
37	Extended capacity, for single acting actuators. Stroke volume of actuator > 6.5 dm³ Not applicable to 3. sign "3" or 7. sign "P"	S = 1/2 NPT, C2 = 1 NPT

5. sign	COMMUNICATION / INPUT SIGNAL RANGE
H	4-20 mA, HART communication.
F	FoUndATIon fieldbus, physical layer according to IEC 61158-2

6. sign	APPROVALS FOR HAZARDOUS AREAS
X	**ATEX and IECEx certifications:** II 1 G Ex ia IIC T6...T4 Ga II 1 D Ex ia IIIC T95 °C...T125 °C Da II 2 G Ex ib IIC T6...T4 Gb II 2 D Ex ib IIIC T95 °C...T125 °C Db Temperature range: T4 or T125 °C: < +80 °C; T5 or T110 °C: < +65 °C; T6 or T95 °C: < +50 °C. II 3 G Ex nA IIC T6...T4 Gc II 3 G Ex ic IIC T6...T4 Gc II 3 D Ex ic IIIC T95 °C...T125 °C Dc Temperature range: T4 or T125 °C: < +85 °C; T5 or T110 °C: < +75 °C; T6 or T95 °C: < +60 °C. Available with or without limit switches. See 9. sign for available options.
X7	**TR CU (Russian) certification:** 0Ex ia IIC T6...T4 Ga X / Ex ia IIIC T95 °C...T125 °C Da X 0Ex ia IIC T6...T4 Ga X / Ex ia IIIC T95 °C...T125 °C Da X 1Ex ib IIC T6...T4 Gb X/ Ex ib IIIC T95 °C...T125 °C Db X 1Ex ib IIC T6...T4 Gb X/ Ex tb IIIC T95 °C...T125 °C Db X 2Ex nA IIC T6...T4 Gc X / Ex tc IIIC T95 °C...T125 °C Dc X 2Ex nA IIC T6...T4 Gc X / Ex tc IIIC T95 °C...T125 °C Dc X 2Ex ic IIC T6...T4 Gc X/ Ex ic IIIC T95 °C...T125 °C Dc X 2Ex ic IIC T6...T4 Gc X/ Ex ic IIIC T95 °C...T125 °C Dc X Temperature range: Ta according to separate table (see certificate). Available with or without limit switches. See 9. sign for available options.
X8	**CCC (Chinese) certification:** Ex ia IIC T4~T6 Ga Ex iaD 20 T95/T110/T125 Ex ib IIC T4~T6 Gb Ex ibD 21 T95/T110/T125 Ex ic IIC T4~T6 Gc Ex icD 22 T95/T110/T125 Ex nA IIC T4~T6 Gc Available with or without limit switches. See 9. sign for available options.

6. sign	APPROVALS FOR HAZARDOUS AREAS
U	**cCSAus certification:** IS Class I, Division 1, Groups A, B, C, and D; T4/T5/T6 Ex ia IIC T4/T5/T6 Ga IS Class I, Zone 0 AEx ia IIC T4/T5/T6 Ga Temperature range: T4: ≤ +80°C; T5: ≤ +65°C; T6: ≤ +50°C. Applicable to 5. sign "H". Not applicable to 7. sign "L2" or "L3" Available with or without limit switches. See 9. sign for available options.
U2	**cCSAus certification:** Ex nA IIC T4/T5/T6 Gc or AEx nA IIC T4/T5/T6 Gc Class I, Division 2, Groups A,B,C,D Temperature range: T4: ≤ +85°C; T5: ≤ +75°C; T6: ≤ +60°C. Applicable to 5. sign "H". Not available with limit switches.
Z	**INMETRO certification:** Ex ia IIC T6...T4 Ga Ex ia IIIC T95 °C...T125 °C Da Ex ib IIC T6...T4 Gb Ex ib IIIC T95 °C...T125 °C Db Temperature range: T4 or T125 °C: -40 °C…+80 °C; T5 or T110 °C: ≤+65 °C; T6 or T95 °C: ≤+50 °C. Ex ic IIC T6...T4 Gc Ex nA IIC T6...T4 Gc Ex ic IIIC T95 °C...T125 °C Dc Temperature range: T4 or T125 °C: -40 °C…+85 °C; T5 or T110 °C: ≤+75 °C; T6 or T95 °C: ≤+60 °C. Applicable to 5. sign "H" Available with or without limit switches. See 9. sign for available options.
E2	**cCSAus certification:** Class I, Div 1, Groups B, C, D; Class II, Div 1, Groups E, F, G; Class III; T6...T4, Enclosure type 4X Ex d IIC T6...T4 AEx d IIC T6...T4 Ex tb IIIC T100 °C IP66 AEx tb IIIC T100 °C IP66 T4: -40 °C to +85 °C; T5: <+75 °C; T6: <+60 °C. 1/2" NPT conduit entries. No glass window. Available with or without limit switches. See 9. sign for available options.
E5	**INMETRO certification:** Ex d IIC T5 Gb (-40°C or -25°C Ta +85°C) Ex d IIC T6 Gb (-40°C or -25°C Ta +70°C) Available with or without limit switches. See 9. sign for available options.
E6	**ATEX and IECEx certifications:** II 2 GD Ex d IIC T6...T4 Gb Ex tb IIIC T80°C...T105°C Db Temperature range: Ta according to separate table (see certificate). Available with or without limit switches. See 9. sign for available options.
E7	**TR CU (Russian) certification:** 1Ex d IIC T6...T4 Gb X / Ex tb IIIC T80°C...T105°C Db X Temperature range: Ta according to separate table (see certificate). Available with or without limit switches. See 9. sign for available options.
E8	Ex d IIC T4~T6 Gb Ex tb IIIC IP66 T80°C/T95°C/T105°C Available with or without limit switches. See 9. sign for available options.

7. sign	OPTIONS
	Several options can be selected, but the order shown below needs to be maintained.
T	Internal 2-wire (passive) position transmitter output. Analog position feedback signal, output 4-20 mA, supply voltage 12 - 30 VDC, external load resistance 0 – 780 Ω. Not applicable to 5. sign "F" or 7. sign "S". **w:** This output is not SIL certified. For SIL certified PT option use 8. sign "T01"
S	Internal 2-wire (passive) device status output. Analog device status feedback signal, output 4-20mA. Output mA value is based on the device status, supply voltage 12 - 30 VDC, external load resistance 0 – 780 Ω. Not applicable to 5. sign "F" or 7. sign "T" **NOTE:** This output is not SIL certified.

7. sign	OPTIONS
P	For partial stroke test (PST) only. To be used together with additional solenoid valve for safety action. 4 mA normal state, signal failure does not affect to the valve position. Not applicable to 4. sign "37" or 7. sign "S". Applicable to 5. sign "H" and 6. sign "X", "U", "U2" and "E6" (other approvals pending). **NOTE:** SIL approved, does not adversely affect the safety function. **NOTE:** If "20 mA to trip" functionality is required, that needs to be defined in 7. sign Y.
J	External junction box, 2 pcs M20x1.5 conduit entries. **VG9_H_J :** Junction box for all 4-20 mA wirings, including position transmitter, if applicable. Junction box is attached to the standard enclosure. Not applicable to 7. sign "L1" or "L3". **NOTE:** This option needs to be selected if both 7. sign "L2" (for Local Control Panel LCP9H_) and 8. sign (limit switches or position transmitter T01) are specified. **VG9_F_J :** Junction box for FF and 24 VDC wiring. Junction box is attached to the standard enclosure. If limit switches (8. sign) are not specified, extension housing is excluded.
L1	Extension housing with additional conduit entries, 4 pcs M20x1.5. Applicable to 5. sign "H" and 7. sign "T" or "S", if additional conduit entry is required. Not applicable to 7. sign "J", "L2", "L3" or limit switches (8.sign).
L2	Extension housing with additional conduit entries and terminal strip for externally powered Local Control Panel (LCP9H_), 4 pcs M20x1.5. Applicable to 5. sign "H". Not applicable to 6. sign "X8" or 7. sign "L1" or "L3". **NOTE:** 7. sign "J" needs to be selected, if 8. sign (limit switches or position transmitter T01) is specified. **NOTE:** Local Control Panel LCP9H_ need to be ordered separately! **NOTE:** W version of LCP9H should be selected with 7. sign "P"
L3	Extension housing with additional conduit entries and terminal strip for loop powered Local Control Panel (LCP9H_L), 4 pcs M20x1.5. Not applicable to 6. sign "X8" or 7. sign "J", "L1 or L2". **NOTE:** Local Control Panel LCP9H_L needs to be ordered separately! **NOTE:** W version of LCP9H_L should be selected with 7. sign "P"
Y	Special construction, to be specified.

8. sign	LIMIT SWITCHES & POSITION TRANSMITTERS
	Extension housing with additional conduit entries, 4 pcs M20x1.5 (1/2" NPT when 6. sign is U, U2 or E2)
	Position transmitters
T01	SIL certified 2-wire (passive) position transmitter. Usable up to SIL2 acc. to IEC61508. Analog position feedback signal, output 4-20 mA, supply voltage 12 - 30 VDC, external load resistance 0 – 700 Ω. Potentiometer Contelec GL60, transmitter electronics Neles. Temperature range -40 to +85 °C / -40 to +185 °F. Not applicable to 6. sign "U", "U2" or E7". Not available with limit switches.
	Inductive proximity sensors, 2 pcs.
D33	**Obsolete** Select R01 option instead.
D44	**Obsolete** Select replacement from other NAMUR switch options, e.g. I02.
I02	P+F; NJ2-12GK-SN, 2-wire type, DC; > 3 mA; < 1 mA, NAMUR NC. Intrinsically safe according to ATEX II 1 G Ex ia IIC T6 Ga. Temperature range -40 to +85 °C / -40 to +185 °F. Usable up to SIL3 acc. to IEC61508. **NOTE:** In safety-related applications the sensor must be operated with a qualified fail safe interface, such as P+F KFD2-SH-EX1. Not applicable to 6. sign "U2"
I09	P+F; NCB2-12GM35-N0, 2-wire type, DC; > 3 mA; < 1 mA, NAMUR NC. Intrinsically safe according to ATEX II 1 G Ex ia IIC T6 Ga. Temperature range -25 to +85 °C / -13 to +185 °F. Usable up to SIL2 acc. to IEC61508. Not applicable to 6. sign "U2"
I45	P+F; NJ3-18GK-S1N, 2-wire type, DC; > 3 mA; < 1 mA, NAMUR NO. Intrinsically safe according to ATEX II 1 G Ex ia IIC T6 Ga. Temperature range -25 to +85 °C / -13 to +185 °F. Usable up to SIL3 acc. to IEC61508. **NOTE:** In safety-related applications the sensor must be operated with a qualified failsafe interface, such as P+F KFD2-SH-EX1. Not applicable to 6. sign "U2"
I57	P+F; NJ2-V3-N, 2-wire type, DC; > 3 mA; < 1 mA, NAMUR NC. Intrinsically safe according to ATEX II 1 G Ex ia IIC T6 Ga. Temperature range -25 to +85 °C / -13 to +185 °F. Usable up to SIL2 acc. to IEC61508. Not applicable to 6. sign "U2"
I58	4 pcs, P+F; NJ2-V3-N, 2-wire type, DC; > 3 mA; < 1 mA, NAMUR NC. Intrinsically safe according to ATEX II 1 G Ex ia IIC T6 Ga. Temperature range -25 to +85 °C / -13 to +185 °F. Usable up to SIL2 acc. to IEC61508. Not applicable to 6. sign "U2"

8. sign	LIMIT SWITCHES & POSITION TRANSMITTERS
	Reed or leverless type proximity switches, 2 pcs.
R01	Neles; Maxx-Guard G, Reed, SPDT, 300 mA, 24 VDC; 200 mA, 125 VAC Temperature range -40 to +80 °C / -40 to +176 °F. Usable to SIL 3 acc. to IEC61508. Applicable to 6. sign "E2", "E5", "E6", "E7" or "E8"
R02	Neles; Maxx-Guard M, Reed, SPDT, passive, intrinsically safe, 300 mA, 24 VDC Temperature range -40 to +80 °C / -40 to +176 °F. Usable up to SIL 3 acc. to IEC61508. Not applicable to 6. sign "U" or "U2"
R04	Neles; Maxx-Guard H, Reed, SPDT, Vmax 240 V, Imax 3A, Pmax 100W Temperature range -40 to +80 °C / -40 to +176 °F. Usable to SIL 3 acc. to IEC61508. Applicable to 6. sign "E2", "E5", "E6", "E7" or "E8".
R35	Topworx; GO35, Leverless, SPDT, 3 A, 24 VDC; 0.5 A, 125 VDC; 4 A, 120 VAC; 2 A, 240 VAC Temperature range -40 to +85 °C / -40 to +185 °F. Applicable to 6. sign "E5", "E6", "E7" or "E8". **NOTE:** Not for general use, only for projects with product management approval.
	Mechanical micro switches Temperature range -40 to +85 °C / -40 to +185 °F
K25	2 pcs, OMRON D2VW-5L2A-1MS, SPDT, 3 A – 250 V AC, 0.4 A – 125 V DC, 5 A – 30 V DC. Applicable to 6. sign "E2", "E5", "E6", "E7" or "E8"
K26	2 pcs, OMRON D2VW-01L2A-1MS, gold plated contacts, SPDT, 100 mA - 30 V DC / 125 V AC. Applicable to 6. sign "E2", "E5", "E6", "E7" or "E8"
K45	4 pcs, OMRON D2VW-5L2A-1MS, SPDT, 3 A – 250 V AC, 0.4 A – 125 V DC, 5 A – 30 V DC. Applicable to 6. sign "E2", "E5" or "E6".
K46	4 pcs, OMRON D2VW-01L2A-1MS, gold plated contacts, SPDT, 100 mA - 30 V DC / 125 V AC. Applicable to 6. sign "E2", "E5", "E6", "E7" or "E8"
	Bus powered mechanical micro switches Temperature range -40 to +85 °C / -40 to +185 °F
B06	2 pcs, OMRON D2VW-01L2A-1MS, gold plated contacts, SPDT; FoUNDATIoN fieldbus powered, no external power needed. Applicable to 5. sign "F" and 6. sign "E2", "E5", "E6", "E7" or "E8"

NOTE: These following optional devices for VG9000H need to be ordered separately. They are not part of VG9000 type coding.

-	OPTIONAL DEVICES FOR VG9000H
	Remote Communication Interface with Status Relays
RCI9H2	TÜV Rheinland SIL 3 certified according to IEC61508. Safety input: 0/24/48 VDC; Output: 4/20 mA + HART; Power supply: 24/48 VDC Temperature range: -20 to +60 °C IP20 Includes integrated isolated barrier for intrinsic safe applications. **ATEX certification:** II (1) G [Ex ia Ga] IIC **IECEx certification:** [Ex ia Ga] IIC CCC certification: [Ex ia Ga] IIC **NOTE:** RCI9H2 is needed if 4/20mA is NOT available from the safety system to VG9000H.

Type Coding

1.	2.	3.	4.	5.	6.
LCP	9	H	E	-	L

1. sign	PRODUCT GROUP
LCP	**Local Control Panel** For local control with Neles ValvGuard VG9000. All versions include LEDs, Manual Reset and PST buttons. Buttons are lockable in all versions.

2. sign	SERIES CODE
9	Suitable for Neles ValvGuard VG9000

3. sign	COMMUNICATION
H	Suitable for VG9000 HART communication version. Four wire serial communication between VG9000 and LCP.

4. sign	APPROVALS FOR HAZARDOUS AREAS
	Enclosure IP66 and stainless steel 316L if not otherwise mentioned.
-	ATEX and IECEx certifications: II 2 G Ex ia IIC T4/T5/T6 Gb Temperature range: T4; -20° to +65 °C, T5; < +65 °C, T6; < +50 °C. II 3 G Ex ic IIC T6...T4 Gc Temperature range: T4; -20° to +65 °C, T5; < +65 °C, T6; < +60 °C. II 2 G Ex eb mb [ib] IIC T6...T4 Gb Temperature range: T4; -20° to +65 °C, T5; < +63 °C, T6; < +48 °C ITRI (Taiwan) certifications are pending. **NOTE:** Additional Y-code at the end of the LCP9H_ type coding, e.g. LCP9HY, means following: Y = Special construction, to be specified. Does not affect the certification. For example, different button texts.
U2	cCSAus certification (PENDING): Ex nA IIC T4/T5/T6 Gc or AEx nA IIC T4/T5/T6 Gc Class I, Division 2, Groups A, B, C, D
E	Enclosure material anodized aluminum. ATEX and IECEx certifications: Ex d IIB + H2 T6 Gb Ex tb IIIC T85°C Db IP66 Ta -20° to +65 °C INMETRO (DNV) certifications: Ex d IIB + H2 T6 Gb Ex tb IIIC T85°C Db IP66 Ta -20° to +65 °C ITRI (Taiwan) certifications: Ex d IIB + H2 T6 Gb Ex tb IIIC T85°C Db

5. sign	OPTIONS
-	None
W	LCP is provided without Close (trip) button

6. sign	SUPPLY POWER
-	**24 VDC externally powered** Power consumption 400 mW. Power supply 11-30 V DC, 50mA **NOTE:** 7. sign L2 needs to be selected for VG9000 type code option.
L	**Loop powered** Power taken from VG9000H input signal, 4 mA. **NOTE:** Minimum 8 mA is required for VG9000 input signal. 7. sign L3 needs to be selected for VG9000 type code option.

Additional accessories

FILTER REGULATORS

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K	**VG9215** Filter regulator for supply air. Filter size 5 µm. Pressure gauge, scale bar/psi/kPa, basic material brass, nickel plated, housing stainless steel, glycerine filled. Temperature range -40 °C... +82 °C / -40 °F... +180 °F. K option includes a thread nipple 1/4"NPT to 1/4"NPT which is suitable with VG9200 & VG9300 option A3 (1/4 NPT AIR CONNECTION) A large capacity filter regulator (not K) must be used for actuator bigger than BC 40 and BJ 32. Installation with mounting bracket. Use large capacity filter regulator also with VG923_.
K2	**VG9300** Stainless steel (AISI 316) filter regulator for supply air. Filter size 5 µm. Pressure gauge, scale bar/psi/kpa/kg/cm² ,silicone oil, AISI 316, Temperature range -40 °C... +80 °C / -40 °F... +176 °F.

CONDUIT ENTRY NIPPLES

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CE09	1/2 NPT conduit entry nipples Brass M20x1,5 / 1/2 NPT, E xd approved Code: K0148
CE19	1/2 NPT conduit entry nipples stainless steel M20x1.5 / 1/2 NPT, E xd approved Code: H7599

CABLE GLANDS

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CG6	M20 x 1,5 blue/plastic, IP66, Ex e

PRESSURE GAUGES AND CONNECTION BLOCKS

Pressure gauges other than module A10: scale bar/psi/ kPa (bar/psi/ kg/cm²), AISI304 housing, polycarbonate lens, oil filled.
Temperature range -40...+85 °C / -40...+185 °F.
Material of pneumatic connection block is AlSiMg, anodized grey in gauge block A3. In blocks In blocks A7, A10 and A11 the block material is stainless steel AISI316.

A3	Pressure gauges with connections 1/4 NPT (S, C1, C2) for VG921_. Gauges AISI304, block AlSiMg.
A3B	Two pressure gauges with connections 1/4 NPT (S, C2). Use with VG9215_ in single acting use only. Gauges AISI304, block AlSiMg.
A7	Pressure gauges with connections 1/4 NPT (S, C1, C2) for VG93_. Gauges AISI316, block AISI316.
A8	Pressure gauges with connections 1/2 NPT (S, C1, C2) for VG9235_. Gauges AISI304, block AlSiMg.
A9	Pressure gauges with connections 1/2 NPT (S) and 1" NPT (C2) for VG9237_. Gauges AISI304, block AlSiMg.
A10	Pressure gauges with connections 1/4 NPT for VG93_. Gauges AISI316L for severe off-shore use, with safety glass window. Block AISI316.
A11	Pressure gauges with connections 1/2" NPT (S, C1, C2) for VG9235 . Gauges AISI316, block AISI316.

PRESSURE GAUGES AND CONNECTION BLOCKS

Pressure gauges in modules D3, D3B: scale 0-12 bar/psi/kPa (bar/psi/ kg/cm²), AISI304 housing, polycarbonate lens Non-oil filled, dry gauges.
Temperature range -50...+85 °C / -58...+185 °F.
Material of pneumatic connection block is AlSiMg, anodized black.

D3	Pressure gauges with connections 1/4 NPT (S, C1, C2). Use with VG9215_. Gauges AISI304, block AlSiMg.
D3B	Two pressure gauges with connections 1/4 NPT (S, C2). Use with VG9215_ in single acting use only. Gauges AISI304, block AlSiMg

DRIVER SETS FOR ROTARY ACTUATORS

Driver sets including the needed parts when assembling VG9000 on Neles B -series actuators with VDI/VDE 3845 or Neles attachment face or QP actuators. Select the correct driver set according to the actuator and the pneumatic connections of valve controller or gauge block when applicable.
Note! Earlier the driver set was delivered with bareshaft positioners as default. This practice is no longer valid, the needed driver set must be ordered as an accessory.

DS02	Driver set for VG9 12, VG9 15 on B1J, B1C and QPx actuators (VDI mounting face). H116181. Set includes the 1/4NPT plug for single acting actuators. The driver set should also be applied with all VG with gauge blocks A3, A7 or A10.
DS03	Driver set for VG9235 and VG9237 on B1J, B1C and QPx actuators (VDI mounting face). H116182. Set includes the 1/2NPT plug for single acting actuators. The driver set can also be applied with VG with gauge block A8.

3RD PARTY MOUNTING SETS / Rotary actuators

Mounting sets between the VG9000 and rotary actuators, including bracket and feedback system.
Note! Sets are including the 1/4" pneumatic plugs needed when used with single acting actuators.

MS21	Mouting set for rotary actuators with VDI/VDE 3845 attachment face. Attachment dimensions 80X30-20. (H036898)
MS22	Mouting set for rotary actuators with VDI/VDE 3845 attachment face. Attachment dimensions 80X30-30. (H074705)
MS23	Mouting set for rotary actuators with VDI/VDE 3845 attachment face. Attachment dimensions 130X30-30. (H036899)
MS24	Mouting set for rotary actuators with VDI/VDE 3845 attachment face. Attachment dimensions 130X30-50. (H074708)

PNEUMATIC PLUGS

Pneumatic plugs for blocking the unused VG9000 pneumatic actuator port when in single acting use.
Note! Choose the correct plug according to VG9000 or gauge block applied.
Note2! Driver sets (DS_) for rotary actuators include a plug.

PP02	1/4NPT plug. Stainless steel. VG921_, VG931_. VG9000 with gauge blocks A3, A7 or A10.
PP03	1/2NPT plug. Stainless steel. VG9235. VG9000 with gauge block A8.