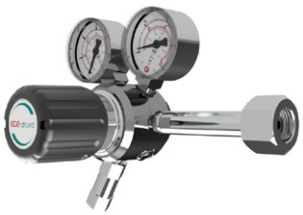
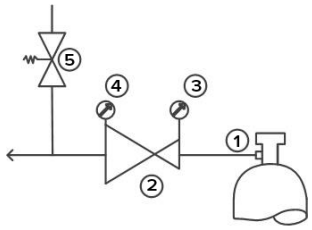
# CSLLVSJ | CSLLESJ – DRUVA®PUR CYLINDER REGULATOR

CYLINDER REGULATOR | PURE LINE (STAINLESS STEEL) | 20 m³ SERIES | LOW PRESSURE RANGE
SINGLE STAGE | 6-PORT VERSION

This single-stage cylinder pressure regulator is used in gas supply systems for pure, inert, flammable, oxidising, corrosive and / or toxic gases and their mixtures up to gas purity 6.0.

Option-**00**:






1 – Cylinder connection
2 – Pressure regulator
3 – Inlet pressure gauge
4 – Outlet pressure gauge
5 – Relief valve

*Dimension for standard version see technical drawing*

## SPECIAL FEATURES:

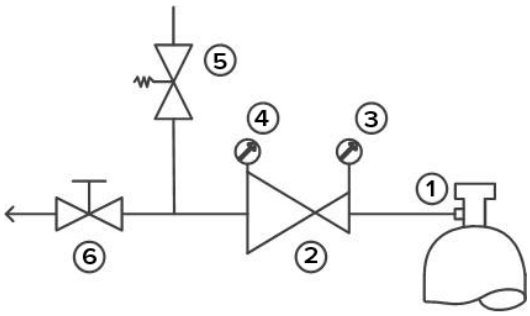
- Hastelloy diaphragm tighting system to atmosphere
- Available with several options (shut-off valve, regulating valve, purge valve, etc.), see drawing
- Available with several international cylinder connections, see drawing
- Compact design
- Excellent pressure adjustment
- Designed and approved regarding ISO 7291
- Relief valve in delivery pressure side available
- Electrostatic chargeability test
  - Fulfills requirements according to ISO 80070-36; IEC TS 60079-32-1 and German TRGS 727
  - Usable in EX- areas zones 1 and 2 for gases with explosion risk group I; IIA; IIB; IIC

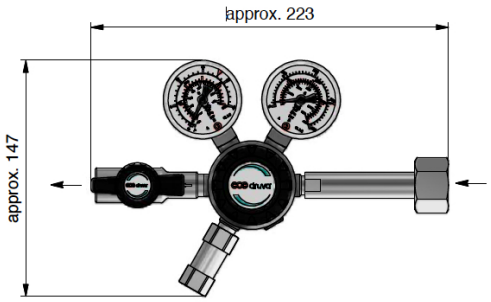
| TECHNICAL DATA | |
|---|---|
| **Working temperature:** | -20 °C to +60 °C |
| **Inlet port:** | Cylinder connection according to national / international directives |
| **Leakage rate seat:** | <5x10$^{-6}$ mbar l/s (Helium) |
| **Leakage rate outside:** | <1x10$^{-9}$ mbar l/s (Helium) |
| **Filter:** | 1x for inlet<br>1x for each outlet |
| **Weight:** | 4,04 kg |
| **Flow nominal:** | 3 m³/h ($N_2$) |
| **Material gas wettet parts** | |
| **Regulator body:** | Stainless Steel |
| **Regulator diaphragm:** | Hastelloy |
| **Regulator seat:**<br>CSLAVSJ-Version<br>CSLAESJ-Version | <br>FKM<br>EPDM |
| **Relief valve seat:**<br>CSLAVSJ-Version<br>CSLAESJ-Version | <br>FKM<br>EPDM |
| **Regulator poppet:** | Stainless Steel |
| **Pressure rates cylinder regulator** | |
| **Max. inlet pressure:** | 12 bar |
| **Delivery pressure:** | 1/ 2 bar |
| **Pressure gauges rates (pressure rates):** | -1 bar till 1,5 bar (1 bar)/ -1 till 5 bar (2 bar) |
| **Contact gauges available – please contact us** | |
| **Cracking pressure relief valves:** | 1,54 bar (1 bar)/ 3,08 bar (2 bar) |
| **Test in production:** | Pressure test with Helium of each item |
| | Seat leakage test with Helium of each item |
| | Helium leak test of each regulator against atmosphere |
| | Test of functionality of each item |
| **Approvals during development:** | Type test in accordance with ISO 7291 |
| | Additional life cycle test |
| | Electrostatic chargeability test<br>• Fulfills requirements according to ISO 80070-36; IEC TS 60079-32-1 and German TRGS 727<br>• Usable in EX-areas zones 1 and 2 for gases with explosion risk group I; IIA; IIB; IIC |

## OPTIONS OF CYLINDER PRESSURE REGULATOR CSLLVSJ | CSLLESJ:

### Option-**0S**: with low pressure shut-off valve

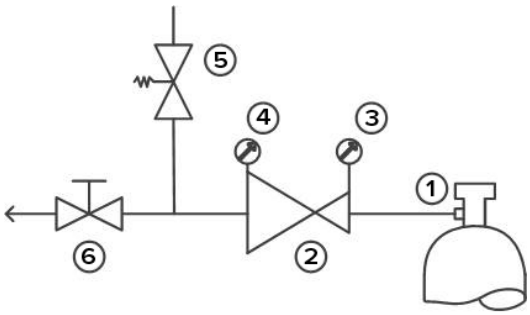
1 – Cylinder connection
2 – Pressure regulator
3 – Inlet pressure gauge
4 – Outlet pressure gauge
5 – Relief valve
6 – Outlet shut-off valve

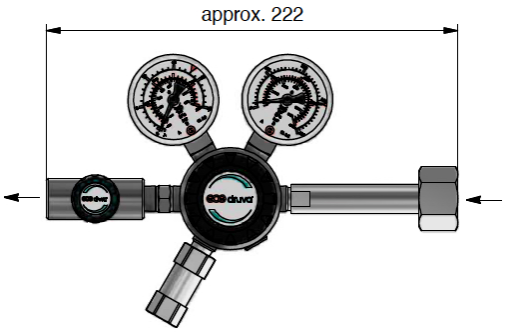



### Option-**0R**: with low pressure regulating valve

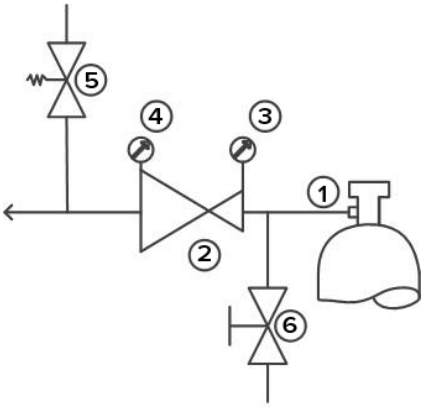
1 – Cylinder connection
2 – Pressure regulator
3 – Inlet pressure gauge
4 – Outlet pressure gauge
5 – Relief valve
6 – Outlet regulating valve

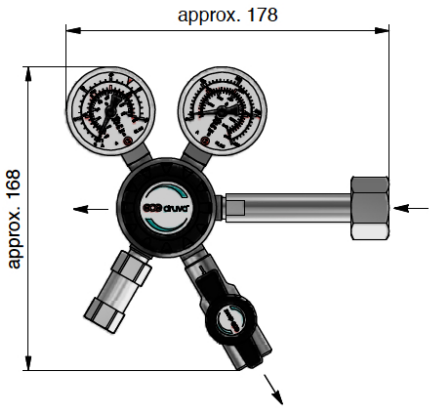



### Option-**P0**: with high pressure purge valve

1 – Cylinder connection
2 – Pressure regulator
3 – Inlet pressure gauge
4 – Outlet pressure gauge
5 – Relief valve
6 – Purge valve

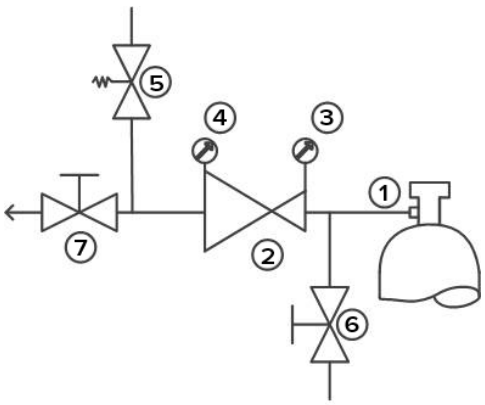


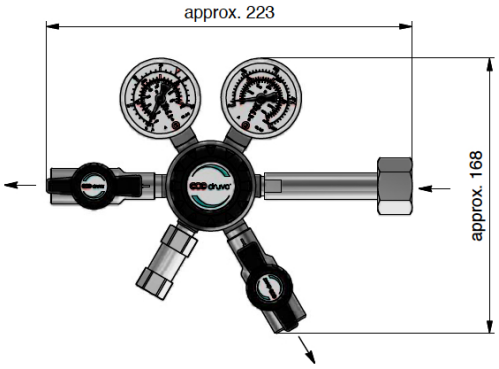



## OPTIONS OF CYLINDER PRESSURE REGULATOR CSLLVSJ | CSLLESJ:

### Option-**PS**: with high pressure purge valve & low pressure shut-off valve

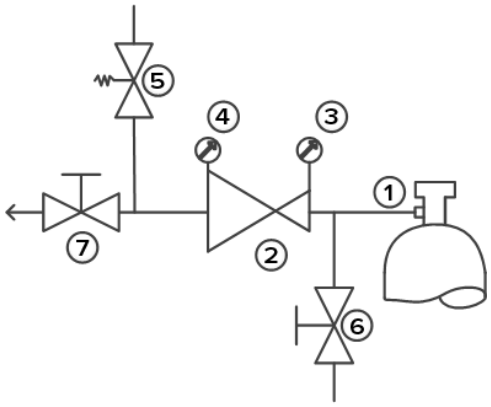
1 – Cylinder connection
2 – Pressure regulator
3 – Inlet pressure gauge
4 – Outlet pressure gauge
5 – Relief valve
6 – Purge valve
7 – Outlet shut-off valve

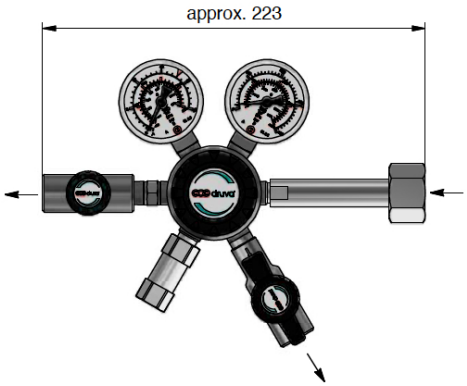



### Option-**PR**: with high pressure purge valve & low pressure regulating valve

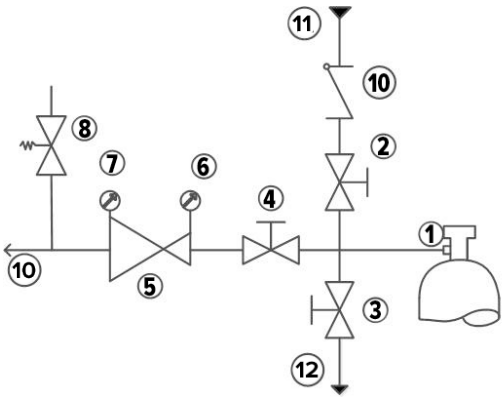
1 – Cylinder connection
2 – Pressure regulator
3 – Inlet pressure gauge
4 – Outlet pressure gauge
5 – Relief valve
6 – Purge valve
7 – Outlet regulating valve

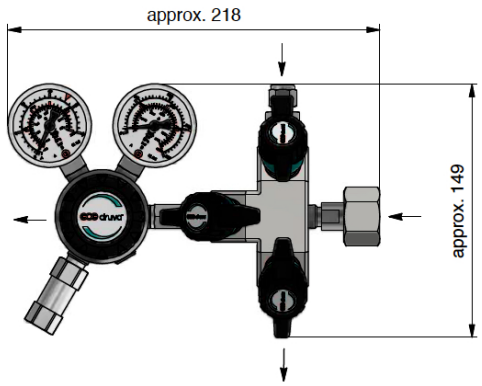



### Option-**30**: with high pressure triple purge block

1 – Cylinder connection
2 – Purge inlet valve
3 – Purge outlet valve
4 – Inlet shut-off valve
5 – Pressure regulator
6 – Inlet pressure gauge
7 – Outlet pressure gauge
8 – Relief valve
9 – Check valve
10 – Process gas outlet
11 – Purge inlet
12 – Purge outlet

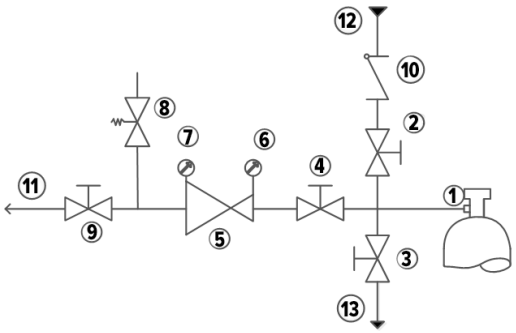


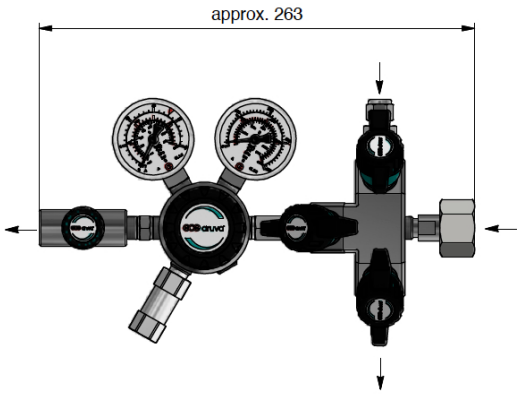



## OPTIONS OF CYLINDER PRESSURE REGULATOR CSLLVSJ | CSLLESJ:

### Option-**3R**: with high pressure triple purge block & low pressure regulating valve

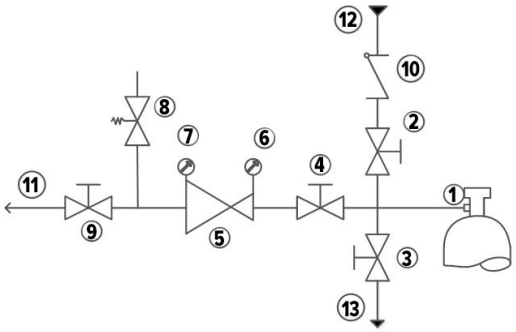
1 – Cylinder connection
2 – Purge inlet valve
3 – Purge outlet valve
4 – Inlet shut-off valve
5 – Pressure regulator
6 – Inlet pressure gauge
7 – Outlet pressure gauge
8 – Relief valve
9 – Outlet regulating valve
10 – Check valve
11 – Process gas outlet
12 – Purge inlet
13 – Purge outlet

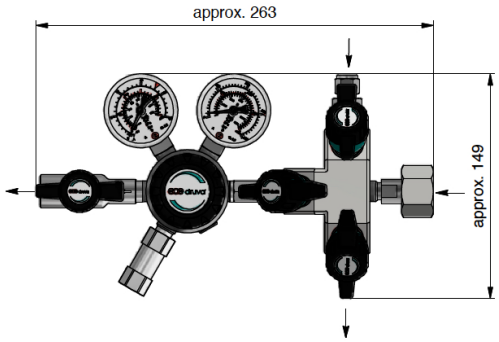


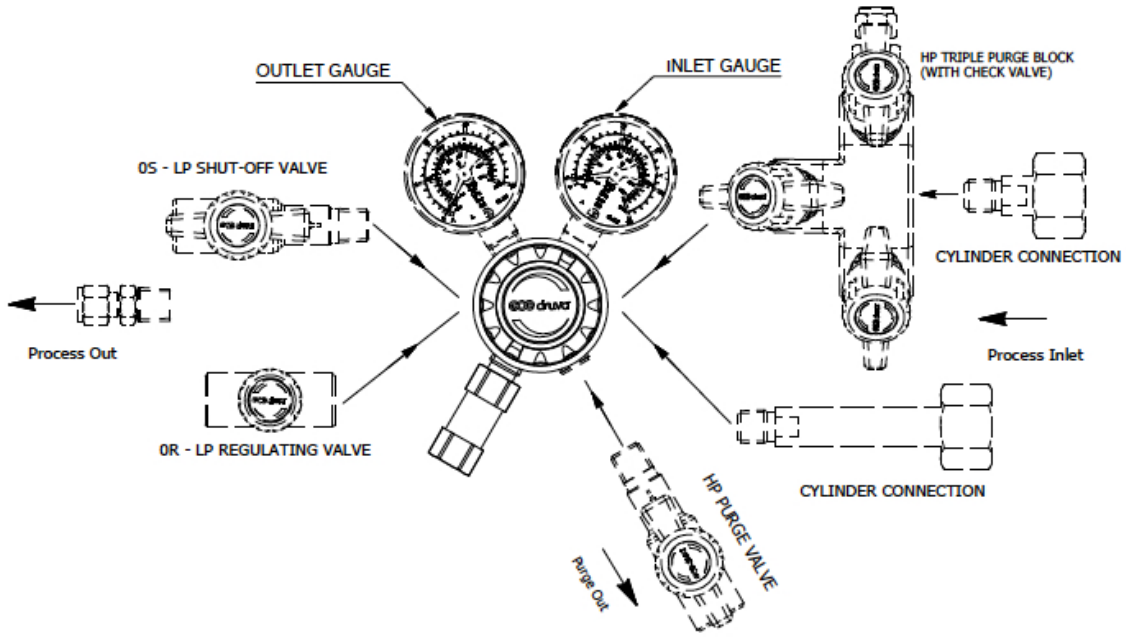

### Option-**3S**: with high pressure triple purge block & low pressure shut-off valve

1 – Cylinder connection
2 – Purge inlet valve
3 – Purge outlet valve
4 – Inlet shut-off valve
5 – Pressure regulator
6 – Inlet pressure gauge
7 – Outlet pressure gauge
8 – Relief valve
9 – Outlet shut-off valve
10 – Check valve
11 – Process gas outlet
12 – Purge inlet
13 – Purge outlet

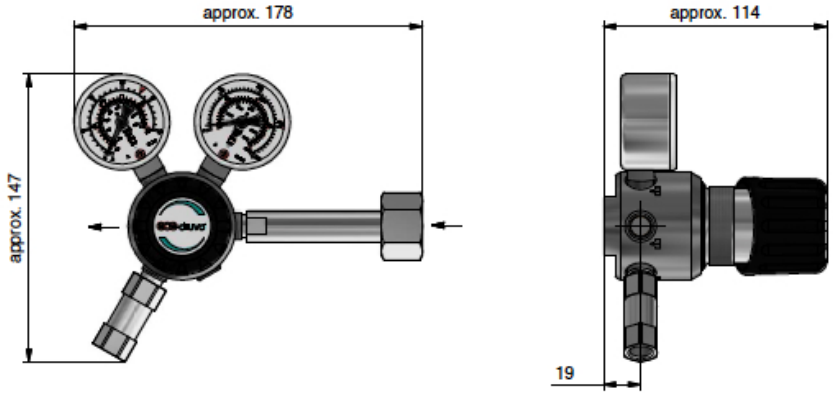


## TECHNICAL DRAWING:




STANDARD VERSION



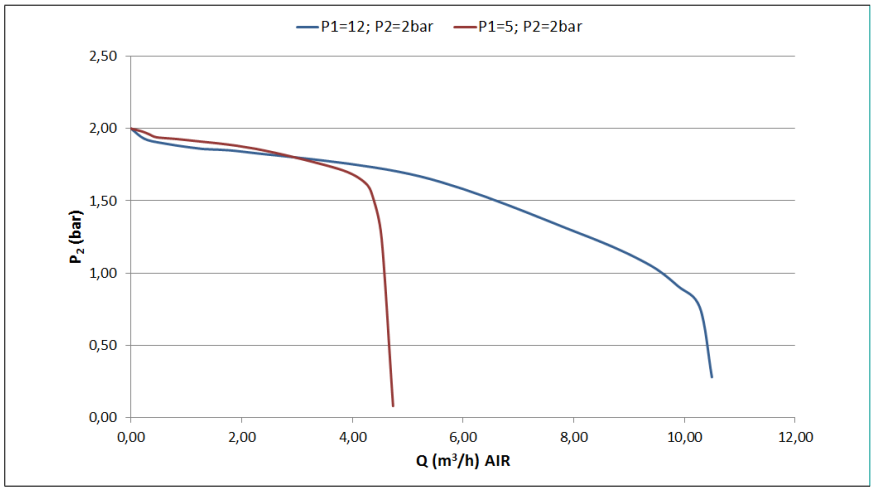

### List of possible cylinder connections

N14F00 - NPT1/4″ female
BS003W - BSI341-3 Wrench
BS004W - BSI341-4 Wrench
BS008W - BSI341-8 Wrench
BS010W - BSI341-10 Wrench
BS014W - BSI341-14 Wrench
CG170W - CGA No 170 Wrench
CG330W - CGA No 330 Wrench
CG580W - CGA No 580 Wrench
CG590W - CGA No 590 Wrench
DI001H - DIN477 No 1 Hand
DI001W - DIN477 No 1 Wrench
DI005W - DIN477 No 5 Wrench
DI006H - DIN477 No 6 Hand
DI006W - DIN477 No 6 Wrench
DI007W - DIN477 No 7 Wrench
DI008W - DIN477 No 8 Wrench
DI009W - DIN477 No 9 Wrench
DI010H - DIN477 No 10 Hand
DI010W - DIN477 No 10 Wrench
DI011W - DIN477 No 11 Wrench
DI013W - DIN477 No 13 Wrench
DI014H - DIN477 No 14 Hand
DI014W - DIN477 No 14 Wrench
DI054H - DIN477 No 54 Hand
DI054W - DIN477 No 54 Wrench
DI057W - DIN477 No 57 Wrench
DI059W - DIN477 No 59 Wrench
NELU1W - NEN LU1 Wrench
NELU4W - NEN LU4 Wrench
NERI2W - NEN RI2 Wrench
NERU1W - NEN RU1 Wrench
NERU3W - NEN RU3 Wrench
NF00CW - AFNOR Type C Wrench
NF00FW - AFNOR Type F Wrench
other connections on request

### List of possible connections

N14F - NPT1/4″ female
M03S - Compression fitting ø 3 MM Stainless Steel
M06S - Compression fitting ø 6 MM Stainless Steel
M08S - Compression fitting ø 8 MM Stainless Steel
M10S - Compression fitting ø 10 MM Stainless Steel
M12S - Compression fitting ø 12 MM Stainless Steel
IX2S - Compression fitting ø 1/8“ Stainless Steel
IX4S - Compression fitting ø 1/4“ Stainless Steel
IX6S - Compression fitting ø 3/8“ Stainless Steel
IX8S - Compression fitting ø 1/2“ Stainless Steel
H04S - Hose nozzle 4,8 mm Stainless Steel
H06S - Hose nozzle 6,4 mm Stainless Steel
H08S - Hose nozzle 8,0 mm Stainless Steel
Hose nozzle max. 15 bar.

## FLOW CURVE:




## ORDER CODE:

**Example Cylinder Regulator | PUR Linie | Stainless Steel | Low Flow | Low Pressure | Single Stage | 6-Port Version | Inlet Right**

| CSLLVSJ<br>CSLLESJ | R | 00 | D1 | AX | I1 | BT | N14F<br>(1/4" NPT female) | N14F<br>(1/4" NPT female) |
|---|---|---|---|---|---|---|---|---|

| Porting | Options | Inlet pressure | Outlet pressure | Inlet gauge | Outlet gauge | Cylinder connection | Process outlet connection |
|---|---|---|---|---|---|---|---|
| R Inlet right | 00 No option | D1 12 bar | AX 2 bar (abs) | 00 Without 1/4" NPT female | 00 Without 1/4" NPT female | possible connections<br>see technical drawing | possible connections<br>see technical drawing |
| | 0S LP* Shut-off valve | | BX 3 bar (abs) | 01 Without (plugged) | 01 Without (plugged) | | |
| | 0R LP* Regulating valve | | | BT Bourdon Tube | BT Bourdon Tube | | |
| | P0 HP** Purge valve | | | I1 Inductiv contact gauge I1 | | | |
| | PS HP** Purge- and LP* Shut-off valve | | | R5 Reed contact gauge R5 | | | |
| | PR HP** Purge- and LP* Regulating valve | | | | | | |
| | 30 HP** Triple purge block | | | | | | |
| | 3S HP** Triple purge block & LP shut-off valve | | | | | | |
| | 3R HP** Triple purge block & LP* regulating valve | | | | | | |

*Order code (as described above) without special characters or spaces! Complete Order Code CSLLVSJR00D1AXI1BTN14FN14F*

** LP = Low pressure*
*** HP = High pressure*