

# PRECISION REGULATOR

## 11-4SNR (G 3/8, 1/2)

### Features

- Shavo's Regulator unit offers extremely precise control.
- Unique Valve design and large ratio of diaphragm to valve area affords highly sensitive performance.
- Specially designed to meet instrumentation requirements.
- SIL3 capable as per IEC 61508.
- CE, ATEX, EAC Ex (CUTR 12), EAC(CUTR 10) approved.

| PARAMETERS                                                                                                               | SPECIFICATIONS                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fluid                                                                                                                    | Compressed Air                                                                                                                                                                                                  |
| Pipe Sizes                                                                                                               | 3/8" ,1/2"                                                                                                                                                                                                      |
| Port Thread                                                                                                              | BSP - Standard<br>BSPT, NPT Optional                                                                                                                                                                            |
| Max. Inlet Pressure                                                                                                      | 17.5 bar (254 psi) - Aluminium                                                                                                                                                                                  |
| Max.Operating Temp. (Ambient)                                                                                            | +80° C                                                                                                                                                                                                          |
| Material of Construction (Aluminium)                                                                                     |                                                                                                                                                                                                                 |
| Body, Bonnet,Cap                                                                                                         | Aluminium Alloy die-cast                                                                                                                                                                                        |
| Internal parts                                                                                                           | Aluminium,SS304,SS316L,Acetal resin,Nylon,brass                                                                                                                                                                 |
| External parts                                                                                                           | SS 316L, Aluminium                                                                                                                                                                                              |
| Diaphragm Assembly                                                                                                       | Synthetic Rubber without PTFE - Standard                                                                                                                                                                        |
| Elastomers                                                                                                               | Low Temp.Nitrile (NBR) -40°C to +80°C<br>EPDM -35°C to+120°C<br>Fluorocarbon (Viton-FKM) -20°C to +180°C                                                                                                        |
| Standard Nominal Flow Rate at 10 bar (150psi)inlet pressure 6 bar (87 psi) set pr. and a drop of 1 bar(14.5 psi)from set | 3/8" - 55 scfm (26 dm3/sec)<br>1/2" - 55 scfm (26 dm3/sec)                                                                                                                                                      |
| CV Value                                                                                                                 | 3/8", 1/2" - (1.04)                                                                                                                                                                                             |
| Type                                                                                                                     | Relieving - Std Non-Relieving - Optional                                                                                                                                                                        |
| Pressure Adjustment                                                                                                      | Hex Headed Adjusting screw - Standard                                                                                                                                                                           |
| Regulated secondary pressure ranges                                                                                      | 0.70 to 7.0 bar (10-100 psi) - Standard<br>0.07 to 0.70 bar (1-10 psi) - Optional<br>0.21 to 2.10 bar (3-30 psi) - Optional<br>0.35 to 3.50 bar (5-50 psi) - Optional<br>0.50 to 5.0 bar (7 -70 psi) - Optional |
| Gauge Port (2 nos.)                                                                                                      | 1/4" BSPT (Fe) - Std.<br>1/4" NPT (Fe) - Optional                                                                                                                                                               |
| Mounting                                                                                                                 | Panel Mounting - Std.(for Aluminium)                                                                                                                                                                            |
| Weight                                                                                                                   | 0.6 Kgs.                                                                                                                                                                                                        |

Pressure Gauge (scale) : Kg/cm<sup>2</sup> (PSI) - Standard (For Domestic Market)  
Bar (PSI) - Standard (Export)



| Size | Flow                              | Range (psi) | Operation | Model                |
|------|-----------------------------------|-------------|-----------|----------------------|
| 1/2  | 55 scfm (26 dm <sup>3</sup> /sec) | 10-100 psi  | Relieving | 11-4SNR-400-RGKA-ENA |

**Note :**

- 1) Pressure gauge will not have CE, EAC, SIL3 and NACE MR 0175 approved.
- 2) Pressure gauge will have ATEX approval.
- 3) PM nut, mounting bracket, grub screw will not be to NACE specifications.

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### Option Selector

Sample Model Number → **1 1 - 4 S N R - 2 0 0 - R G K A - E N - X X X - M - X X X**

Position → **1 2 - 3 4 5 6 - 7 8 9 - 10 11 12 13 - 14 15 - 16 17 18 - 19 - 20 21 22**

**1 2** **3 4 5 6**

Instrument Regulator with S.S. Trim

**7** Port Size

3 = 3/8"  
4 = 1/2"

**8 9** Options

50 = Hex. Headed Adj. Screw-Slotted type(SS316)

**10** Options

R = Relieving  
N = Non Relieving

**11** Gauge

N = No Gauge  
G = With Gauge (SS)

(Pr. Gauge will be ATEX approved-50mm)

**12** Secondary Pressure Range

A = 0.07 to 0.70 bar (1-10 psi)  
C = 0.21 to 2.10 bar (3-30 psi)  
E = 0.35 to 3.50 bar (5-50 psi)  
F = 0.50 to 5.00 bar (7-70 psi)  
K = 0.70 to 7.00 bar (10-100 psi)

**13** Port Thread

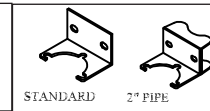
|   | Main Ports | Gauge Ports |
|---|------------|-------------|
| A | NPT        | BSPT        |
| B | BSPT       | BSPT        |
| G | BSP        | BSPT        |
| N | NPT        | NPT         |

**14** Elastomer Material

L = Low Temp. Nitrile  
[E] = EPDM  
[V] = Viton

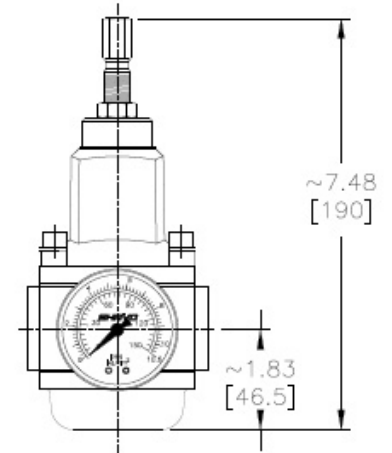
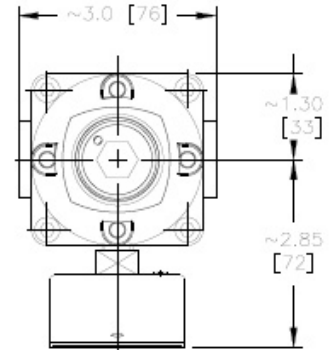
**15** Mounting Bracket

N = No Mounting Bracket  
B = Standard Mounting Bracket  
[P] = 2" Pipe Mounting Bracket



Brackets for ATEX units will be SS316

Brackets for Aluminium units



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16 | 17 | 18 Test / Approval

|   |   |   |                                |
|---|---|---|--------------------------------|
| A | 0 | 0 | ATEX                           |
| A | 0 | 1 | UKEX                           |
| A | 0 | 2 | UKCA                           |
| A | 0 | 3 | ATEX, UKEX, EAC Ex, UKCA       |
| A | 0 | 4 | ATEX, UKEX, EAC Ex             |
| A | 0 | 5 | ATEX, UKEX, UKCA               |
| A | 0 | 6 | ATEX, UKEX, EAC Ex             |
| B | 0 | 0 | ATEX, CE                       |
| B | 0 | 1 | ATEX, CE, UKEX, EAC Ex, UKCA   |
| B | 0 | 2 | ATEX, CE, UKEX, EAC Ex         |
| B | 0 | 3 | ATEX, CE, UKEX, UKCA           |
| B | 0 | 4 | ATEX, CE, UKCA, EAC Ex         |
| B | 0 | 5 | ATEX, CE, EAC Ex               |
| C | 0 | 0 | CE                             |
| C | 0 | 1 | CE, UKEX, EAC Ex, UKCA         |
| C | 0 | 2 | CE, UKEX, EAC Ex               |
| C | 0 | 3 | CE, UKEX, UKCA                 |
| C | 0 | 4 | CE, EAC Ex, UKCA               |
| C | 0 | 5 | CE, EAC Ex                     |
| D | 0 | 0 | ATEX, EAC                      |
| D | 0 | 1 | ATEX, EAC, UKEX, EAC Ex, UKCA  |
| D | 0 | 2 | ATEX, EAC, UKEX, EAC Ex        |
| D | 0 | 3 | ATEX, EAC, UKEX, UKCA          |
| D | 0 | 4 | ATEX, EAC, EAC Ex, UKCA        |
| E | 0 | 0 | EAC                            |
| E | 0 | 1 | EAC, UKEX, EAC Ex, UKCA        |
| E | 0 | 2 | EAC, UKEX, EAC Ex              |
| E | 0 | 3 | EAC, UKEX, UKCA                |
| E | 0 | 4 | EAC, EAC Ex, UKCA              |
| F | 0 | 0 | ATEX, SIL3                     |
| F | 0 | 1 | ATEX, SIL3, UKEX, EAC Ex, UKCA |
| F | 0 | 2 | ATEX, SIL3, UKEX, EAC Ex       |
| F | 0 | 3 | ATEX, SIL3, UKEX, UKCA         |
| F | 0 | 4 | ATEX, SIL3, EAC Ex, UKCA       |
| F | 0 | 5 | ATEX, SIL3, EAC Ex             |
| G | 0 | 0 | CE, EAC                        |
| G | 0 | 1 | CE, EAC, UKEX, EAC Ex, UKCA    |
| G | 0 | 2 | CE, EAC, UKEX, EAC Ex          |
| G | 0 | 3 | CE, EAC, UKEX, UKCA            |
| G | 0 | 4 | CE, EAC, EAC Ex, UKCA          |
| H | 0 | 0 | CE, SIL3                       |
| H | 0 | 1 | CE, SIL3, UKEX, EAC Ex, UKCA   |
| H | 0 | 2 | CE, SIL3, UKEX, EAC Ex         |
| H | 0 | 3 | CE, SIL3, UKEX, UKCA           |
| H | 0 | 4 | CE, SIL3, EAC Ex, UKCA         |
| H | 0 | 5 | CE, SIL3, EAC Ex               |
| J | 0 | 0 | EAC, SIL3                      |
| J | 0 | 1 | EAC, SIL3, UKEX, EAC Ex, UKCA  |
| J | 0 | 2 | EAC, SIL3, UKEX, EAC Ex        |
| J | 0 | 3 | EAC, SIL3, UKEX, UKCA          |
| J | 0 | 4 | EAC, SIL3, EAC Ex, UKCA        |
| K | 0 | 0 | CE, EAC, SIL3                  |

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|     |     |     |                                                   |
|-----|-----|-----|---------------------------------------------------|
| K   | 0   | 1   | CE, EAC, SIL3, UKEX, EAC Ex, UKCA                 |
| K   | 0   | 2   | CE, EAC, SIL3, UKEX, UKCA                         |
| K   | 0   | 3   | CE, EAC, SIL3, UKEX, EAC Ex                       |
| K   | 0   | 4   | CE, EAC, SIL3, EAC Ex, UKCA                       |
| L   | 0   | 0   | ATEX, EAC, SIL3                                   |
| L   | 0   | 1   | ATEX, EAC, SIL3, UKEX, EAC Ex, UKCA               |
| L   | 0   | 2   | ATEX, EAC, SIL3, UKEX, EAC Ex                     |
| L   | 0   | 3   | ATEX, EAC, SIL3, UKEX, UKCA                       |
| L   | 0   | 4   | ATEX, EAC, SIL3, EAC Ex, UKCA                     |
| M   | 0   | 0   | ATEX, CE, SIL3                                    |
| M   | 0   | 1   | ATEX, CE, SIL3, UKEX, EAC Ex, UKCA                |
| M   | 0   | 2   | ATEX, CE, SIL3, UKEX, EAC Ex                      |
| M   | 0   | 3   | ATEX, CE, SIL3, UKEX, UKCA                        |
| M   | 0   | 4   | ATEX, CE, SIL3, EAC Ex, UKCA                      |
| N   | 0   | 0   | ATEX, CE, EAC                                     |
| N   | 0   | 1   | ATEX, CE, EAC, UKEX, EAC Ex, UKCA                 |
| N   | 0   | 2   | ATEX, CE, EAC, UKEX, EAC Ex                       |
| N   | 0   | 3   | ATEX, CE, EAC, UKEX, UKCA                         |
| N   | 0   | 4   | ATEX, CE, EAC, EAC Ex, UKCA                       |
| [O] | [0] | [0] | Other customer special requirement if Any         |
| P   | 0   | 0   | ATEX, CE, EAC, SIL3                               |
| P   | 0   | 1   | ATEX, CE, EAC, SIL3, UKEX, EAC Ex, UKCA           |
| P   | 0   | 2   | ATEX, CE, EAC, SIL3, UKEX, EAC Ex                 |
| P   | 0   | 3   | ATEX, CE, EAC, SIL3, UKEX, UKCA                   |
| P   | 0   | 4   | ATEX, CE, EAC, SIL3, EAC Ex, UKCA                 |
| Q   | 0   | 0   | ATEX, EAC Ex                                      |
| R   | 0   | 0   | EAC Ex                                            |
| R   | 0   | 1   | EAC Ex, UKEX, UKCA                                |
| R   | 0   | 2   | EAC Ex, UKCA                                      |
| S   | 0   | 0   | SIL3                                              |
| S   | 0   | 1   | SIL3, UKEX, EAC Ex, UKCA                          |
| S   | 0   | 2   | SIL3, UKEX, EAC Ex                                |
| S   | 0   | 3   | SIL3, UKEX, UKCA                                  |
| S   | 0   | 4   | SIL3, EAC Ex, UKCA                                |
| V   | 0   | 0   | ATEX, CE, SIL3, EAC Ex                            |
| V   | 0   | 1   | ATEX, CE, SIL3, EAC Ex, UKEX, UKCA                |
| V   | 0   | 2   | ATEX, CE, SIL3, EAC Ex, UKEX                      |
| V   | 0   | 3   | ATEX, CE, SIL3, EAC Ex, UKCA                      |
| X   | X   | X   | STANDARD UNITS WITHOUT ANY CERTIFICATE / APPROVAL |
| Y   | 0   | 0   | ATEX, SIL3, EACEx                                 |
| y   | 0   | 1   | ATEX, SIL3, EACEx, UKEX, UKCA                     |
| Y   | 0   | 2   | ATEX, SIL3, EAC Ex, UKEX                          |
| Y   | 0   | 3   | ATEX, SIL3, EACEx, UKCA                           |
| Z   | 0   | 1   | CE, SIL3, EAC Ex, UKEX, UKCA                      |
| Z   | 0   | 2   | CE, SIL3, EAC Ex, UKEX                            |
| Z   | 0   | 3   | CE, SIL3, EAC Ex, UKCA                            |

## 11-4SNR (G 3/8, 1/2)

19 MOC

M = Aluminium (Body, Bonnet, Cap)

20 21 22 Compliance

|   |   |   |                                                                   |
|---|---|---|-------------------------------------------------------------------|
| X | X | X | Standard Unit Without any Complince                               |
| A | 0 | 1 | RoHS 3 Compliance                                                 |
| A | 0 | 2 | REACH Compliance                                                  |
| A | 0 | 3 | Copper Free (Only Applicable Aluminium Version)                   |
| A | 0 | 4 | RoHS3, REACH Compliance                                           |
| A | 0 | 5 | RoHS3, REACH, Copper Free (Only Applicable for Aluminium Version) |
| A | 0 | 6 | RoHS3, Copper Free (Only Applicable for Aluminium Version)        |
| A | 0 | 7 | REACH, Copper Free (Only Applicable for Aluminium Version)        |

Note : Option shown in the [ ] bracket are special, Please contact Sales HQ/Manufacturing.