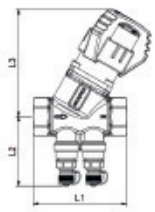
# BOSS X-POT 6 COMPLIANCE PACK

| Code | BOSS™ Ref | Description |
|---|---|---|
| 16920761 | Compliance Pack X-POT 6 | Compliance Pack for X-POT 6 |

| Compliance Pack for X-POT 6 | | | |
|---|---|---|---|
| **Compliance Pack Components** | | | |
| 1No. Dynamic Balancing Valve | | Frese SIGMA Compact DN32 | |
| 1No. Dynamic Pressure Valve Insulation Jacket | | Frese SIGMA Compact DN32 Insulation Cover | |
| 1No. PD Monitor | | BOSS PD Monitor (MODBUS) | |
| **Operating Parameters - Frese SIGMA Compact DN32 Low** | | | |
| Connection Size | | DN32 BSP Female | |
| Valve Body | | DZR Brass CW602N | |
| Flow Setting | | PA6 (20% glass) | |
| Spring | | Stainless Steel | |
| Diaphragm | | HNBR | |
| O-Rings | | EPDM | |
| Operational Flow Rate | | 0.056 - 1.389 l/s (3.36 - 83.34 l/min) | |
| Max Differential Pressure | | 400 kPa | |
| Kvs | | 10.9 | |
| Max Pressure Rating | | 25 Bar | |
| Glycolic Mixtures | | Up to 50% (Ethylene and propylene) | |
| Operating Temperatures | | -10 °C to 120 °C | |
| Dimensions | L1 | 104 mm |  |
| | L2 | 68 mm | |
| | L3 | 110 mm | |
| Weight | | 1.4 kg | |

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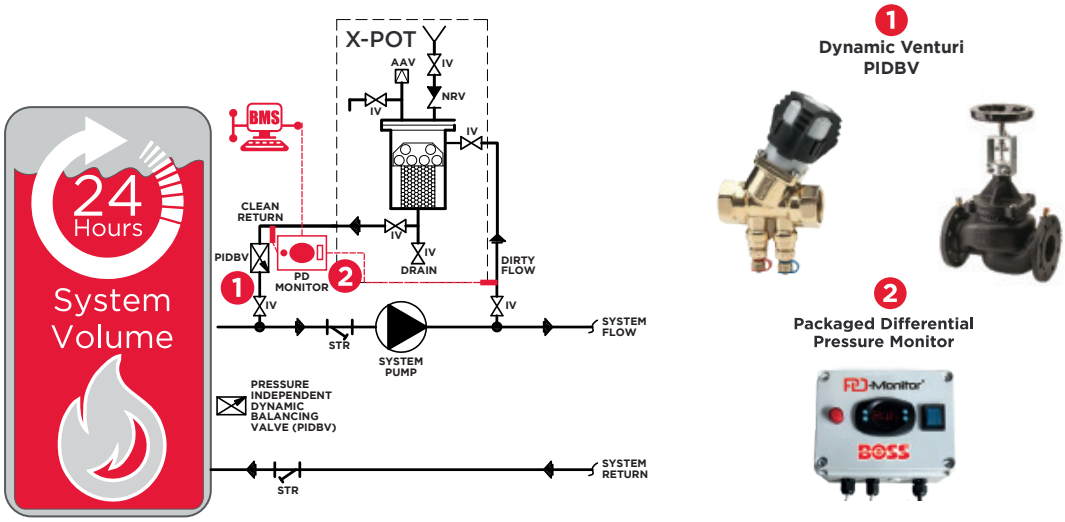
# BOSS X-POT 6 COMPLIANCE PACK

| PD Monitor (MODBUS) (As Supplied in Compliance Pack) | |
|---|---|
| **Technical Data** | |
| Parameters | Differential Pressure |
| IP Protection | IP54 |
| Mounting Position | Internal Wall – Frost Free |
| Display | Dot Matrix (Red) |
| Electrical Connections | 0.9M Flying Lead (supplied) connected to Isolator (by others) |
| Power Supply | 230V AC, 50Hz, 13.5mA |
| Dimensions | 200mm x 150mm x 85mm (enclosure) |
| Weight | 1.3kg |
| Ambient Operating Temperatures | >5°C to 45°C, <90%RH |
| Pressure Sensor Cable | Packard Plug + cable (1.8m in length) |
| Pressure Sensor Material | ANSI 316L |
| Max Working Pressure (Sensors) | <30 Bar |
| Differential Pressure Setting Increments | 0.1 Bar |
| Range of Pressure Differential | 0.1 to 7 Bar |
| 4-20mA Sensor Connections: | ¼" BSP |
| Max Working Temperature (Sensor) | 100°C |
| Min Working Temperature (Sensor) | -40°C |
| Medium | Water / Liquids |
| CE / EMC Compatibility | IEC 61010-1: 2010 + A1: 2019 and EN 61010-1: 2010 + A1:2019 |
| BMS Signal | MODBUS RS485 (Address List on Page 10) & 5-amp Common Alarm Relay used to contact BMS System (Normally Open) |
| **Materials of Construction** | |
| Housing | Techno polymer GWPLAST 75 |
| Pressure Sensor | ANSI 316L |
| **Features** | |
| Application | Blockages in plant equipment such as filters, strainers, plate heat exchangers and heater coils can have a detrimental effect on the system efficiency and building comfort. BOSS™ PD-Monitor can be used to detect blockages and will alarm locally with audible buzzer and visual beacon and remotely via a BMS fault signal (relay / Modbus) when connected to a BMS system. |

## BOSS X-POT 6 COMPLIANCE PACK

| Feature | Description |
|---|---|
| Frese SIGMA Compact Dynamic Balancing Valve | The Frese SIGMA Compact is an externally adjustable dynamic balancing valve that provides simple, accurate and reliable flow limitation and isolation in heating and cooling systems. |
| Application | The Frese SIGMA Compact can be used in both heating and cooling systems for the effective distribution of flow in various sections of the system.<br>The Frese SIGMA Compact can be used instead of traditional double regulating valves and can be installed in both variable flow systems and constant flow systems. |
| Operation | The Frese SIGMA Compact can be set to the required position easily by using the scale, to limit the flow rate in certain parts of a system, eliminating overflows and the unnecessary wastage of energy. The internal differential pressure control function of the Frese SIGMA Compact ensures that the set flow rate is limited irrespective of differential pressure fluctuations in the system.<br>The hand wheel can be used to close the valve and to open it to the preset flow. |
| Preset Scale | Easy adjustment of the flow using the clear preset scale on the valve/ Hand Wheel (Pre-Set Setpoints can be found in the Instruction Booklet). |
| Isolation | Hand wheel provides an isolation function up to 10 bar differential pressure. |
| Location | No minimum straight pipe lengths required before or after the valve. |
| PT Plugs | Built-in P/T plugs for needle system |

## SYSTEM SCHEMATICS



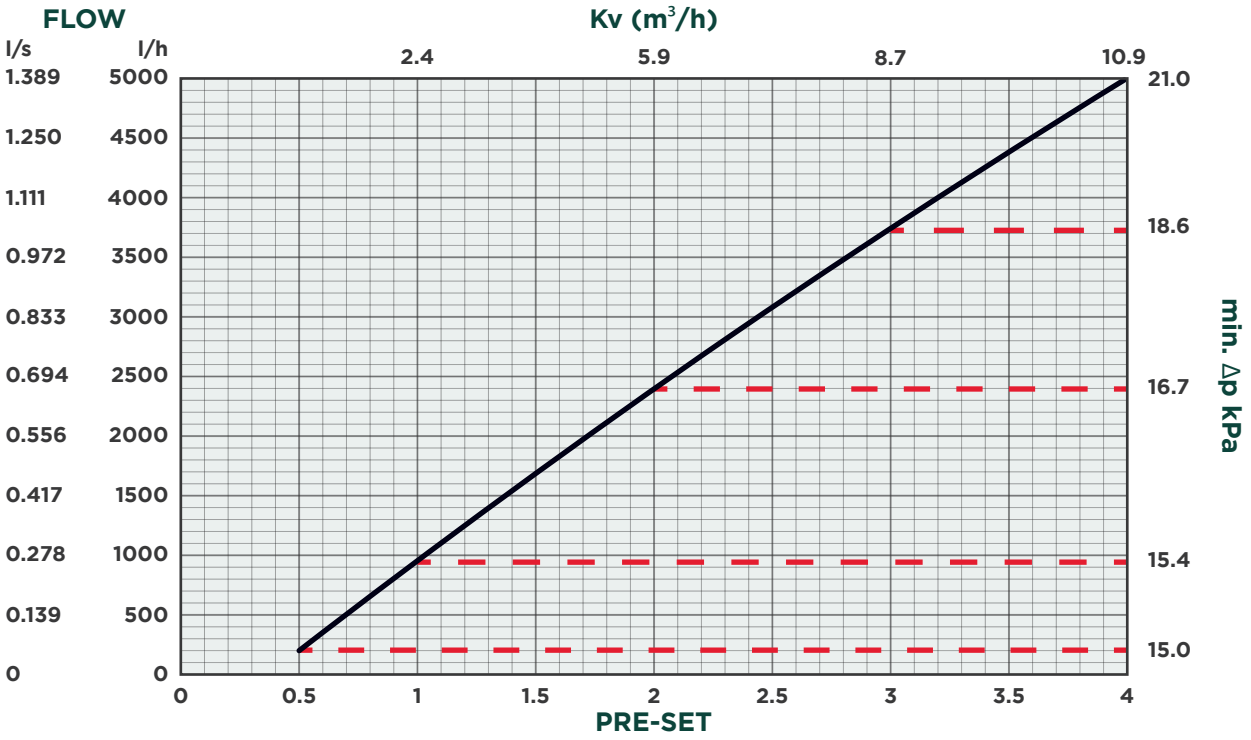

The schematic above shows an indicative example only. For further support please contact the BOSS™ Technical Team: 03330 341920 / BOSStechnicalteam@bssgroup.com

**BOSS X-POT 6 PRODUCT ILLUSTRATIONS**

# X-POT Compact/6 Compliance Pack

## FRESE SIGMA COMPACT SETPOINTS

## COMPLIANCE PACK FOR X-POT 6



# MODBUS ADDRESS LIST

| Preliminary Settings | |
|---|---|
| Baud Rate | 9600 |
| Word Length | 8 |
| Parity | NO |
| Stop Bits | 1 |

## Addresses

| X Variable Address | Denomination | Description | Format | Type | Data Conversion | Units | Variable Range |
|---|---|---|---|---|---|---|---|
| 40001 | Pressure Sensor 1 | Value of sensor 1 | Word | Read | | Decimal of Bar/PSI | |
| 40002 | Pressure Sensor 2 | Value of sensor 2 | Word | Read | | Decimal of Bar/PSI | |
| 40003 | Current | Value of the actual current through pump | Word | Read | | mA | |
| 40006 | Pump Relay | Status of Pump Relay | Word | Read | 0=OFF 1=ON | | |
| 40007 | Filter Pump Alarm Relay | Status of Pump Alarm Relay | Word | Read | 0=OFF 1=ON | | |
| 40008 | General Alarm Relay | Status of General Alarm Relay | Word | Read | 0=OFF 1=ON | | |
| 40009 | Buzzer | Status of Buzzer | Word | Read | 0=OFF 1=ON | | |
| 40013 | Filter Blocked Alarm | Status of Filter Blocked Alarm | Word | Read | 0=Alarm Not Present 1= Alarm Present | | |
| 40014 | Pump Failure Alarm | Status of Pump Failure Alarm | Word | Read | 0=Alarm Not Present 1= Alarm Present | | |
| 40015 | Sensor 1 Alarm | Status of Sensor 1 Alarm | Word | Read | 0=Alarm Not Present 1= Alarm Present | | |
| 40016 | Sensor 2 Alarm | Status of Sensor 2 Alarm | Word | Read | 0=Alarm Not Present 1= Alarm Present | | |
| 40023 | Par. Pressure Differential | Value of the parameter | Word | Read/ Write | | Decimal of Bar/PSI | 1 -> 70 |
| 40024 | Par. Alarm Relay Contact | Value of the parameter | Word | Read/ Write | 0=Normally Open 1=Normally Close | | 0 -> 1 |
| 40025 | Par. Minimum Pressure | Value of the parameter | Word | Read/ Write | | Decimal of Bar/PSI | 0 -> Par. Maximum Pressure |
| 40026 | Par. Maximum Pressure | Value of the parameter | Word | Read/ Write | | Decimal of Bar/PSI | Par. Minimum Pressure -> 30 |
| 40027 | Par. Current Sense | Value of the parameter | Word | Read/ Write | 4=Not Active 5=Active | | 4 -> 5 |
| 40028 | Par. Bar/PSI Unit | Value of the parameter | Word | Read/ Write | 2=Bar 3=PSI | | 2 -> 3 |
| 40029 | Par. Buzzer Enabled | Value of the parameter | Word | Read/ Write | 4=Not Active 5=Active | | 4 -> 5 |
| 40030 | Par. ID Number | Value of the parameter | Word | Read/ Write | | | 0 -> 99 |
| 40031 | Par. Pump Hours | Value of the parameter | Word | Read/ Write | | Hours | 0 -> 9999 |
| 40031 | Par. Alarm Counter | Value of the parameter | Word | Read/ Write | | | 0 -> 1000 |