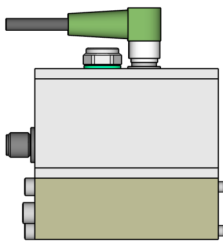


SAC

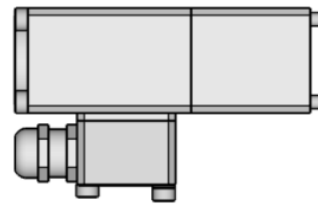
Servi Addon Components

- Electronic components for precise regulation of proportional valves
- Modular design allows easy assembly directly on the valves (OBE)
- Field upgrade of valves possible
- Approved for usage in explosive environment up to Ex zone 1
- Modern 32 bit controller with power reserve
- Extension flexibility by software and hardware.
- Easy parameterization via PC-tool
- Very good corrosion protection, ideal for offshore/marine environment

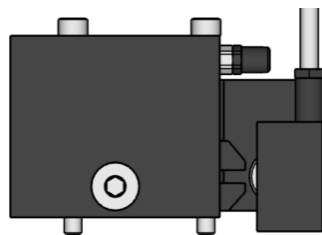
Example 1: Hawe PSV - SLF3 upgrade with SAC > OBE (On Board Electronics)



ODC (Onboard Digital Controller)



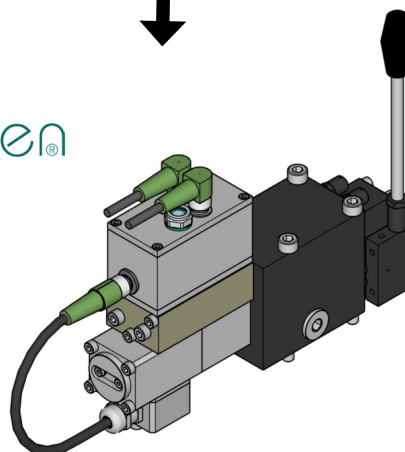
HPRS (High Performance Range Sensor)



SLF3 Hawe standard prop valve



CANopen®

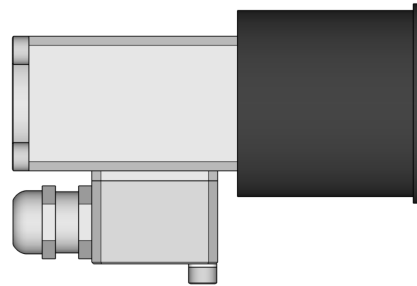
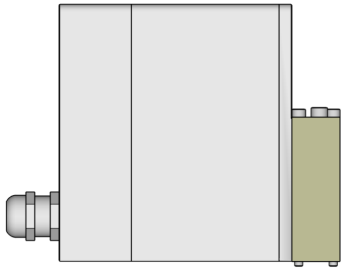


SAC

Servi Addon Components

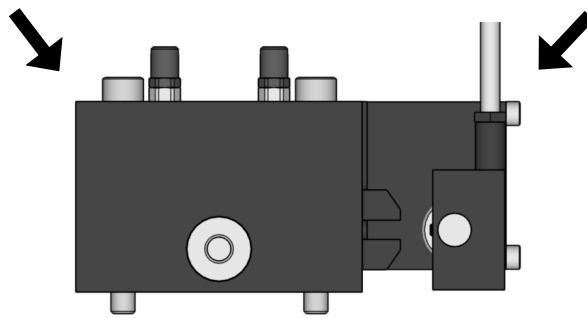
SERVI
GROUP™

Example 2: Hawe PSV - SLF5 upgrade with SAC > OBE (On Board Electronics)



OPAT (Onboard Profibus Atex Twinsolenoid)

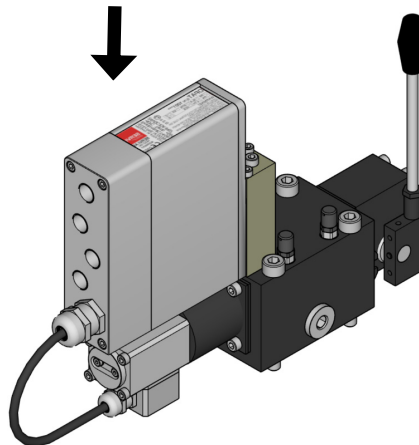
OPAT (Onboard Profibus Atex Twinsolenoid)



SLF5 Have standard prop valve

PROFIBUS

IECEx **Ex**



EX VERSION

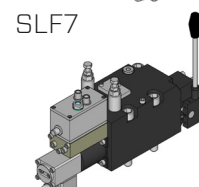
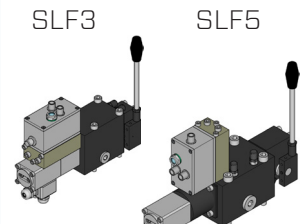
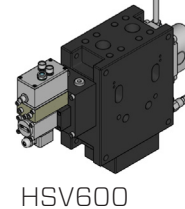
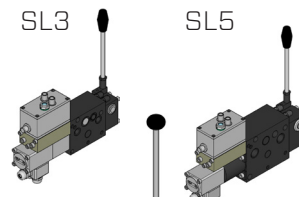
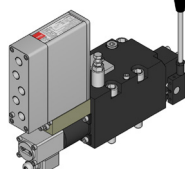
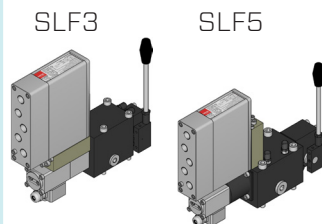
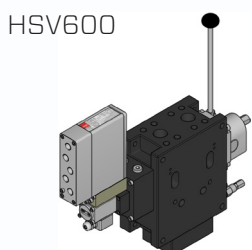
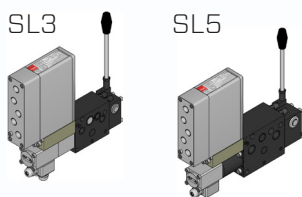
NON EX VERSION

Sectional

Subplate

Sectional

Subplate



SAC

Servi Addon Components

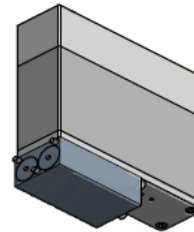
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OPAT - MAIN FEATURES

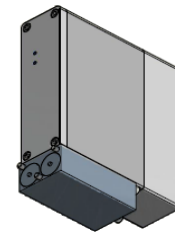
OPAT is an electromechanical control unit for proportional directional and pressure relief valves. OPAT is ATEX and IECEx approved according to NS-EN60079 (IECEx 60079) for use in potentially explosive atmospheres.

Units with model codes BTN or SDE feature a built-in solenoid, whereas units with model code XS have a separate connection housing for an external solenoid.

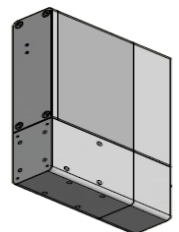
The control system communicates with Profibus, Profidrive or analog signals (2 off). The analogue inputs are selectable as command or feedback. Wide range, current and voltage available. Digital input for hardwire activation (enable)



BTN



SDE



XS

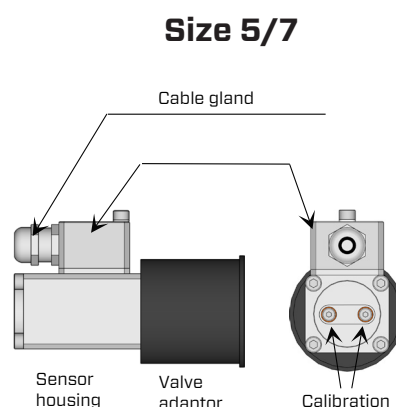
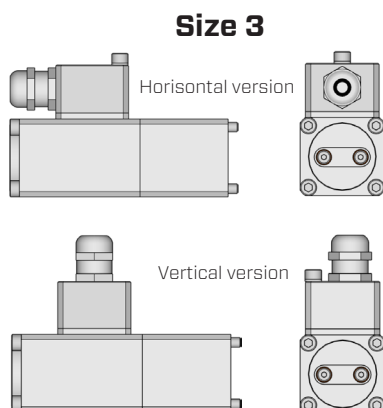
Type Approval	Presafe 14 ATEX 5271 CE 2460 / IECEx PRE 14.0036X
Identification	II 2G Ex eb ib mb IIC T4 Gb
Temperature Range	Ambient: -40 to +55 °C (-4 to +131 °F)
IP Class	IP67
Max. Current	1 [A]
External Fuse	10 [A]
Max. Voltage	24 VDC SELV DC supply with max. 24 VDC +10%

HPRS - MAIN FEATURES

HPRS is a electronic position sensor with high measuring accuracy approved for use in potentially explosive atmospheres, approved acc EN60079 (IECEx 60079). The unit is primarily to be used together with hydraulic proportional valves.

The unit consists of a coil section with integrated electronic, which detect position change of the proportional valve spool

Sensor housing is connected to a valve adaptor fitted for the different valve sizes. The unit has flying lead and vertical or horizontal versions of cable adaptor.



SAC

Servi Addon Components

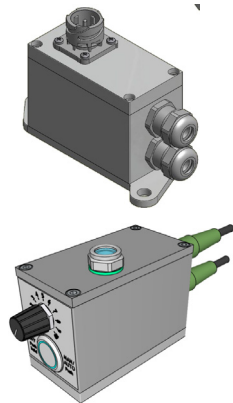
SERVI
GROUP™

Type Approval	Presafe 14 ATEX 5124 CE 2460 / IECEx PRE 14.0021X
Identification	II 2G Ex d IIB T6 Gb
Temperature range	Ambient: -40 til +70°C (-40 to +158°F)
IP Class	IP66/67
Max Current	62 mA
External Fuse	100 mA
Max Voltage	24 VDC (SELV DC supply with max. 24VDC +20%)
Output signal	4-20 mA

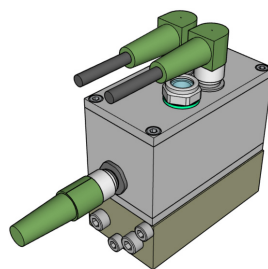
ODC - MAIN FEATURES

ODC, the non Ex SAC component can control and regulate all conventional proportional solenoids, e.g. hydraulic valves with a current draw of up to 2500mA. It can be controlled by a number of different control signals, both analogue and digital (BUS), and has sensor inputs for valve and/or process closed loop regulation.

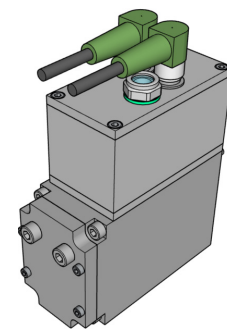
The unit has a modular design and can easily be adapted to a range of interfaces, but it is specifically prepared and adjusted for direct mounting (onboard) on Hawe PSL/PSV series, Servi HSV 600 proportional valves serie, and Servi MB winch block serie. ODC is well suited for outdoor use, including marine environments, and has a robust design to withstand vibrations, temperature fluctuations and electronic noise (EMC).



ODC - Stand alone
Custom design examples



ODC - Twin Solenoid integrated
Separate position sensor



ODC -AUH Solenoid and
position sensor integrated

Supply	12 V -10%... 32 V +10%
Solenoid selection	0,15A ... 0.80A for twin solenoid 0,63A ... 2,50A for stand alone
Temperature range	Ambient: -25°C ... +80°C; storage -25°C ... +80°C
IP Class	Up to IP69K
EMC	In accordance with applicable CE standards
Analogue inputs	$U_b \cdot 0,5 \pm U_b \cdot 0,25$; 0 ± 10 V; 4 V ± 4 V; 5 V ± 5 V; $0(4) - 20$ mA, 12 ± 8 mA
Reference Output	8 V, 10 V max 20 mA
Status signaling	1 Status LED 2 colors at top lid