

### Park/Shunt Valves with Integrated Emergency Function

#### Function

The **Park/Shunt Valve AE431** is used on trailers that are equipped with spring brakes. It is connected to the supply line (red) and enables the manual release and application of the trailer spring brakes. The AE431 valve's emergency function ensures that, in the event of loss of pressure in the supply line (red) resulting from uncoupling or failure of the supply line whilst driving, the trailer's spring brakes will automatically be applied by exhausting their air supply and not by applying the trailer's service brakes as with traditional relay emergency valves (REVs). This means there is no longer a need for a separate relay emergency valve and ensures that the trailer is safely parked using the spring brakes, especially when the air pressure depletes.

An additional benefit of this functionality is that the spring brakes are automatically applied every time the trailer is uncoupled. This helps the spring brakes to retain their output force since the springs do not remain compressed for long periods of time.

This feature also reduces the possibility of air leakage when the trailer is uncoupled since, in contrast with trailers with a REV, nearly all pipes and hoses are exhausted.

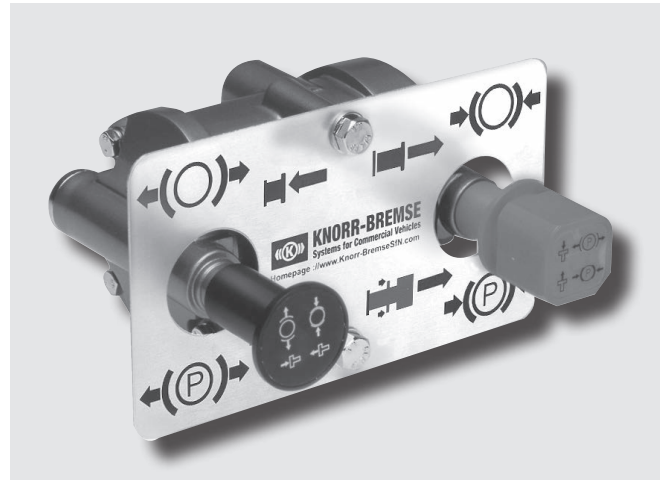
Some variants of the Park/Shunt Valve are available with an integrated charging valve and push-to-connect fittings. This means that these valves have two additional delivery ports, e.g. for the air suspension which will simplify the piping work.

The charging valve ensures the priority charging of the brake reservoir before supplying pressure to the auxiliary circuit (air suspension). In the event of pressure loss in the brake system or auxiliary circuit the valve will protect the pressure in the intact circuit.

Both knobs of the AE431 control the spring brakes:

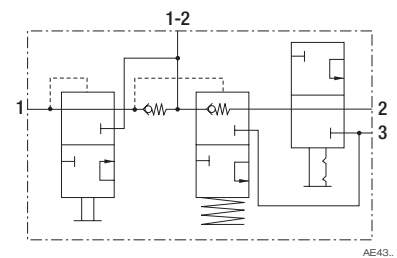
- The red knob is used to operate the parking brake. It has a safety function incorporating a locking sleeve that protects against unintentional operation.
- The black knob is used for manoeuvring the uncoupled trailer. However, in contrast with conventional release valves, it operates the spring brakes. It can only be pushed in when the trailer is uncoupled and re-connection of the supply line (red) will cause it to pop out automatically returning it to the driving position.

The mounting plate Z006845 (see page 2) explains the operation of the two knobs and can be ordered separately.

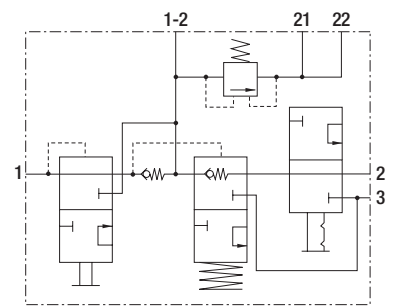


#### Standard Symbol as DIN ISO 1219

Without integrated charging valve



With integrated charging valve



### Park/Shunt Valves with Integrated Emergency Function

#### Technical Features

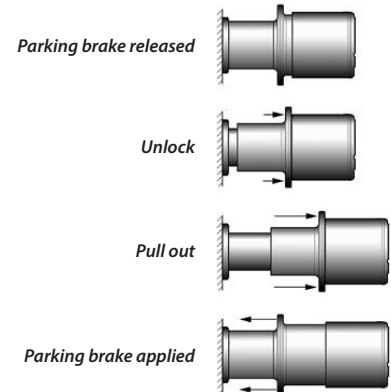
Maximum Operating Pressure: 10 bar  
 Operating Temperature Range: -40 °C to +80 °C  
 Weight: 1.45 kg approx.

Charging Valve function:  
 Opening Pressure: 6.0 bar  
 Closing Pressure: 5.2 bar

Service Brake Priority:  
 When charging the trailer's air systems the service brake reservoir is given priority up to a pressure of 3.0 bar.

Emergency function:  
 In the event of a pressure drop at port 1 below 2.6 bar, the spring brakes are automatically applied.

#### Operation of the parking brake - red knob

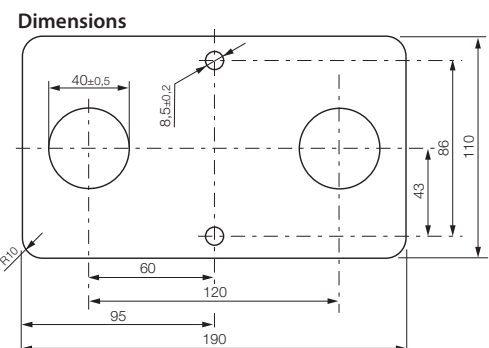
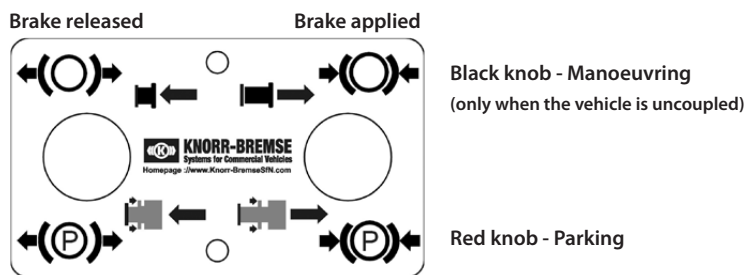


#### Range Overview

Part No.	Type No.	Air Ports			Remark	Charging Valve	Fittings supplied (push to connect)
		1, 1-2,	21, 22	2			
K015849	AE4311	M16x1.5	-	M22x1.5	With rubber flap	No	No
K015380		M16x1.5	M16x1.5	M22x1.5		Yes	Yes
K020123		PTC 8x1	PTC 8x1	PTC 12x1.5			

Port	Use for	Thread	Push-to-Connect Fittings to suit pipe size
1	Supply (from red supply line)	M16x1.5 - DIN 3852	8x1
1-2	Supply/delivery (from/to reservoir)		
2	Delivery (to spring portions of Spring Brakes)	M22x1.5 - DIN 3852	12x1.5
3	Exhaust	-	-
21	Delivery (to auxiliaries)	M16x1.5 - DIN 3852	8x1
22	Delivery (to auxiliaries)		

#### Mounting Plate (Part No. Z006845)

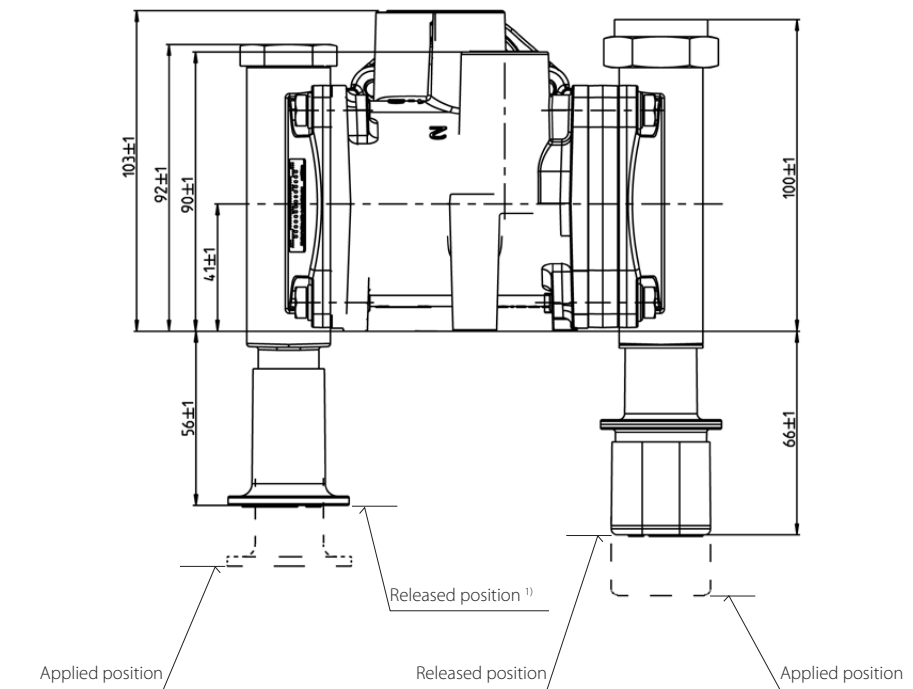
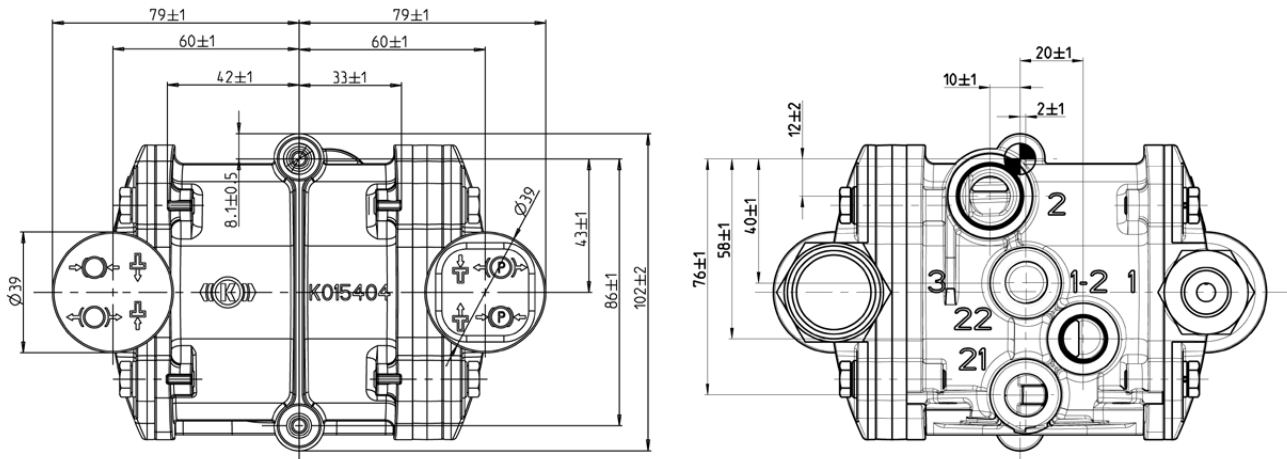


#### Service Parts

Blanking Plug for 8 mm pipe (Port 21 or 22, PTC) K064101

#### Dimensions

AE4311 – K015849

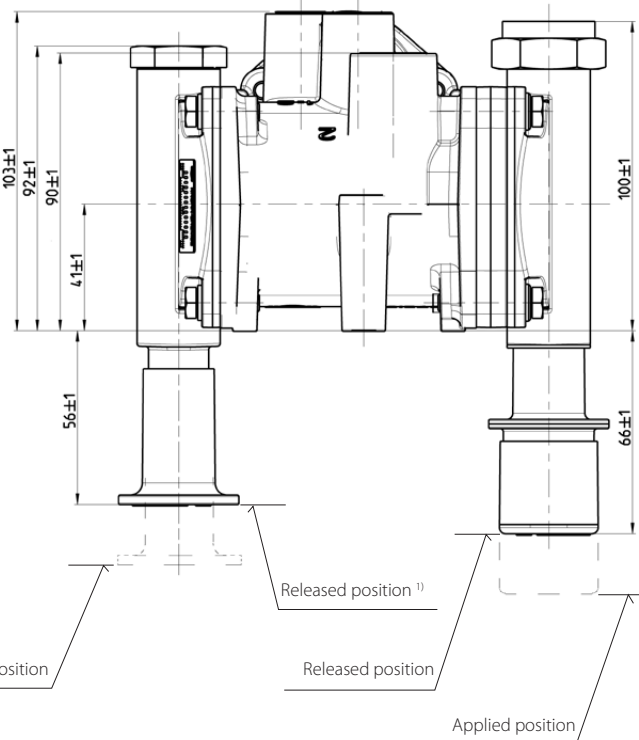
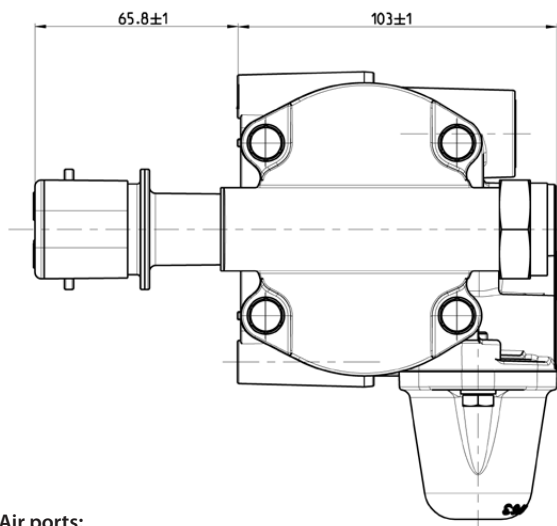
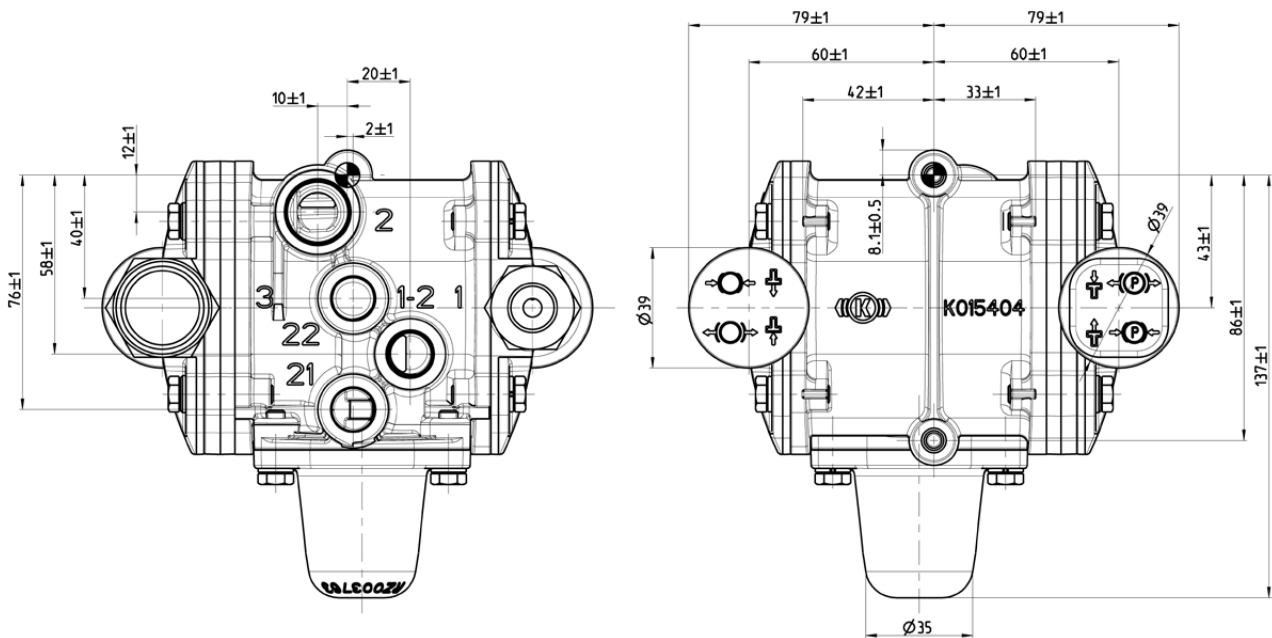


#### Air ports:

- 1 = Supply (from red supply line)
- 1-2 = Supply/delivery (from/to reservoir)
- 2 = Delivery (to spring portions of Spring Brakes)
- 3 = Exhaust

<sup>1)</sup> For the black knob:  
only possible when the supply line (red) is not pressurised

#### AE4311 – K015380

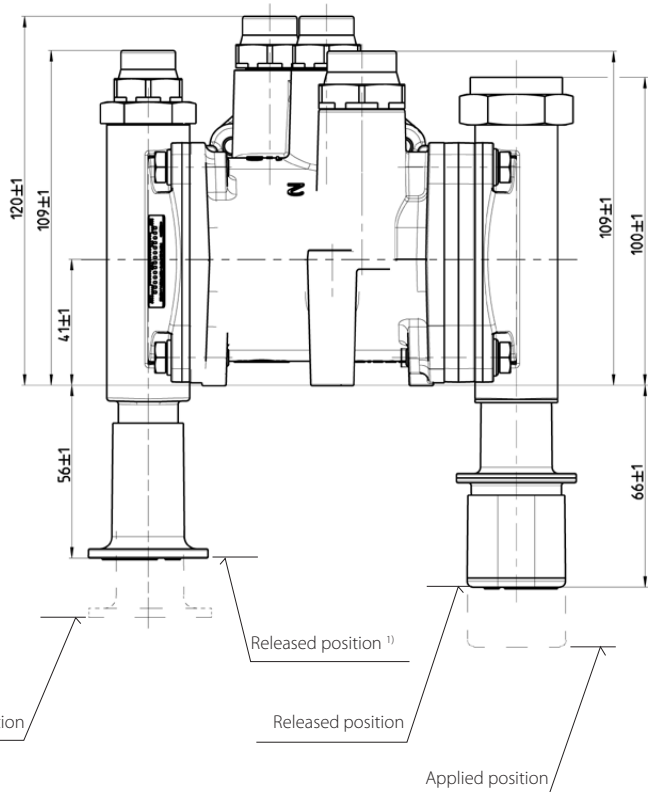
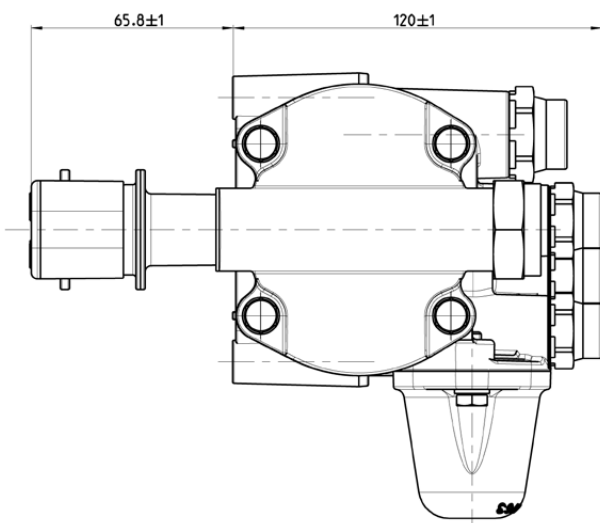
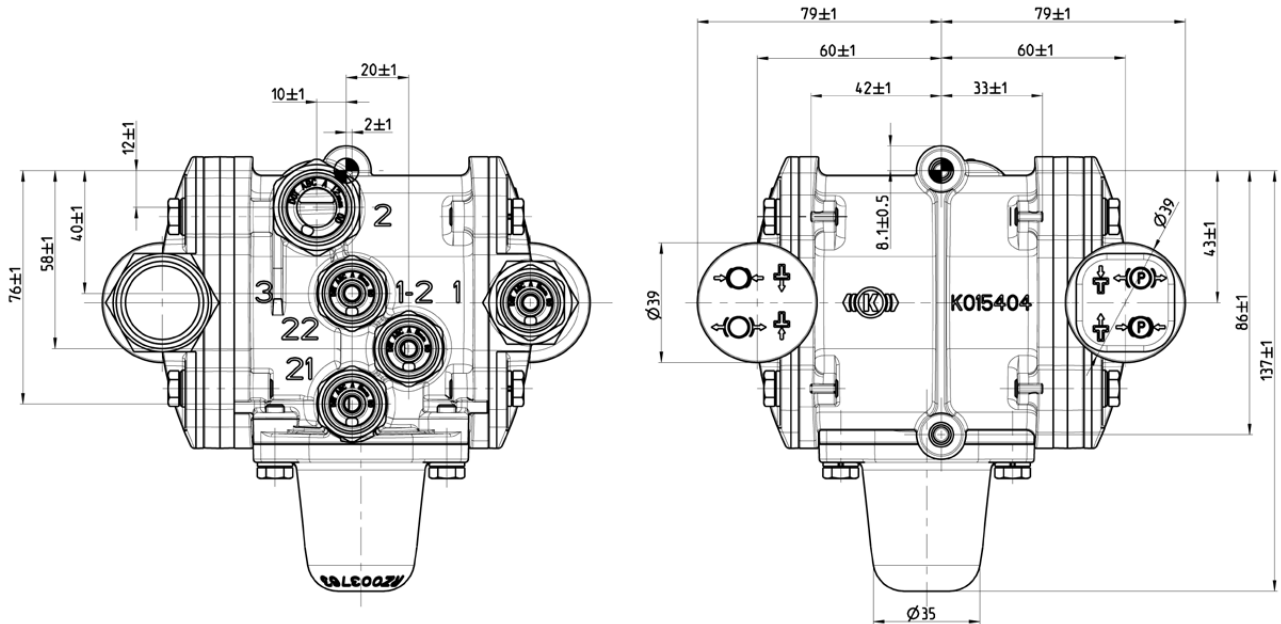


#### Air ports:

- 1 = Supply (from red supply line)
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- 2 = Delivery (to spring portions of Spring Brakes)
- 21 = Delivery (to auxiliaries)
- 22 = Delivery (to auxiliaries)
- 3 = Exhaust

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#### AE4311 – K020123



#### Air ports:

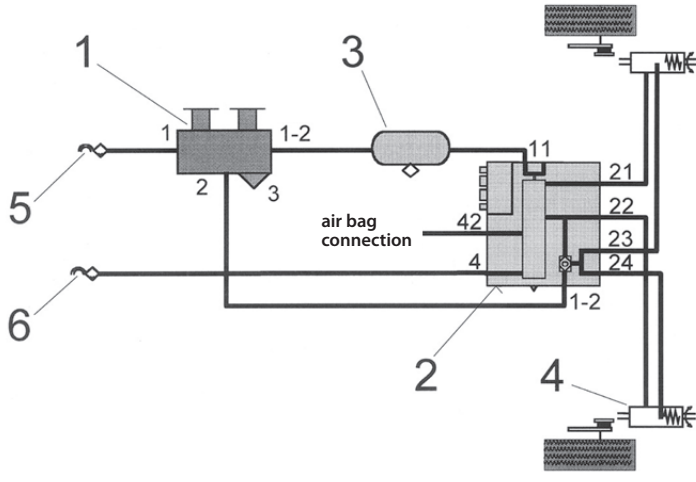
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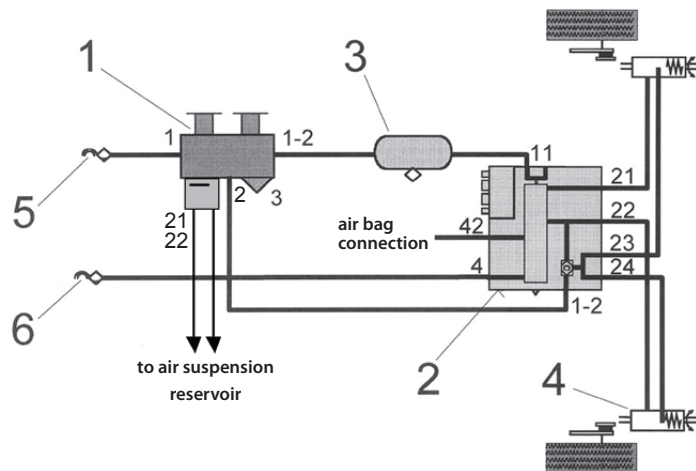
### Park/Shunt Valves with Integrated Emergency Function

#### Installation example AE4311 with EBS

Park / Shunt Valve without Integrated Charging Valve



Park / Shunt Valve with Integrated Charging Valve



Item	Designation
1	Park / Shunt Valve with integrated emergency function
2	TEBS / TEBS G2 brake module
3	Reservoir
4	Spring Brake Actuator
5	Coupling Head with filter. Supply - Red
6	Coupling Head with filter. Control - Yellow

### Park/Shunt Valves with Integrated Emergency Function

#### Revision Details

Rev. 002	April 2019	New Layout



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