

## Programme-Controlled Blowdown System **TA 7**

### **Description**

Electronic unit for the generation of periodic pulses to initiate a blowdown cycle via the GESTRA rapid-action intermittent blowdown valve type MPA 46 or 47, i.e. automation of intermittent boiler blowdown. Equipment for steam boilers to TRD 401, section 6.4.

The programme-controlled blowdown system consists of an electronic cycling timer, a three-way solenoid valve and a strainer.

The equipment meets the German regulations for use in steam-boiler plants operating without constant supervision or with limited supervision (TRD 602 and TRD 604, sheet 1).

### **Function**

The cycling timer type PRS 8 generates a control pulse which, after the preset blowdown interval, operates the three-way solenoid valve. This in turn actuates the rapid-action blowdown valve by means of compressed air or pressurized water and closes it again at the end of the pulse (blowdown) duration.

The blowdown interval and the pulse duration can be coarsely preset with a code switch. Final adjustment is carried out with the aid of two potentiometers.

For test purposes and in the event of power failure the three-way solenoid valve can be operated by hand. A push-button manual override is provided on the solenoid valve which allows a test of the blowdown valve as required by certain regulations in force.

### **Design**

The cycling timer PRS 8 is mounted in an appliance plug socket fitted on the three-way solenoid valve.

### **Technical Data**

#### **Cycling Timer PRS 8**

**Interval time  $t_{on}$**  (blowdown interval)  
Adjustable within a range of 0.5 h to 10 h

**Pulse duration  $t_{on}$**  (blowdown duration)  
Adjustable within a range of 0.5 s to 10 s

#### **Indicators**

One LED mains supply  
One LED pulse duration

#### **Supply voltage**

115 V – 230 V, 50 – 60 Hz  
or 24 V DC

#### **Protection**

IP 65

#### **Permissible ambient temperature**

0 °C to 60 °C

#### **Cable entry**

PG cable gland for 0.6 to 7 mm cable

#### **Approx. weight**

60 g

### **Technical Data** – continued –

#### **Three-Way Solenoid Valve 340 C**

#### **Connection**

¼", EN ISO 228-1

#### **Max. service pressure**

16 barg (230 psig)

#### **Min. differential pressure required for opening and closing**

0.5 bar (7.2 psi)

#### **Duty cycle**

100 %

#### **Position of installation**

as required

#### **Code letters for connections**

P = Pressure connection

A = Valve outlet

R = Exhaust or drain outlet

#### **Supply voltage**

115 V, 50 Hz, 15 VA, in rush 30 VA  
or

230 V, 50 Hz, 15 VA, in rush 30 VA  
or optional

24 V DC 8 W

#### **Protection**

IP 65

#### **Maximum permissible ambient temperature**

55 °C

#### **Approx. weight**

0.9 kg

#### **Strainer**

#### **Connection**

½", EN ISO 228-1

#### **Material**

Body: gun metal RG 5

Filter cartridge: austenitic stainless steel 1.4571

#### **Mesh size**

0.5 mm

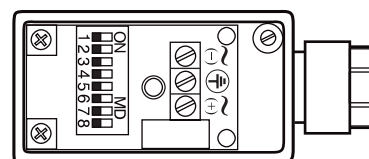
#### **Approx. weight**

0.3 kg

### **Control Fluid**

Compressed air or pressurized water, 4 to 8 barg (58 to 116 psig) depending on the blowdown valve used and the boiler pressure (see chart in data sheet MPA 46, MPA 47).

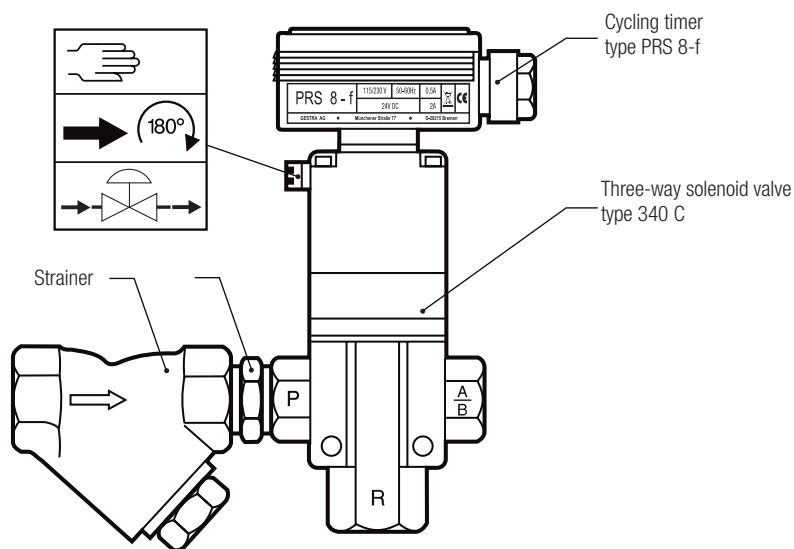
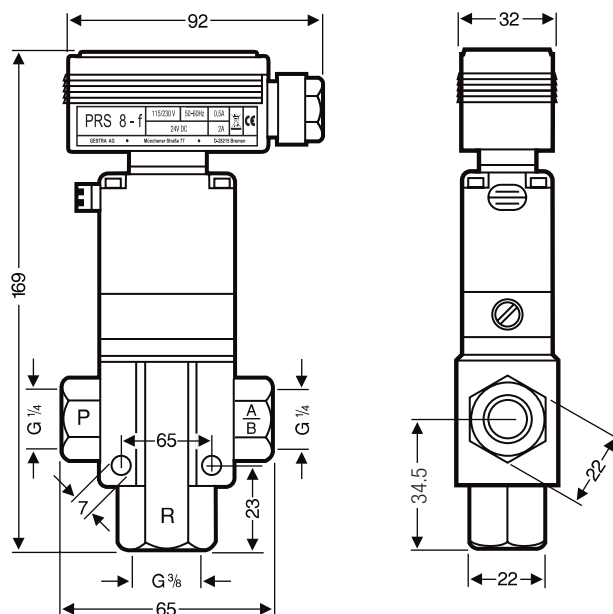
### **Wiring Diagram**



# Programme-Controlled Blowdown System

## TA 7

### Dimensions



### Important Notes

For wiring to the cycling timer three-core cable, conductor size 1.5 mm<sup>2</sup>, is required.

### Order and Enquiry Specifications

GESTRA programme-controlled blowdown system type TA 7 with cycling timer type PRS 8, three-way solenoid valve type 340 C and strainer. Mains supply 230 V, 50 Hz.

Supply in accordance with our general terms of business.



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