



DWR625

DWR

Pressure monitors

Especially suitable as a pressure monitor or pressure limiter for fuel gases (DVGW Worksheet G 260) and liquid fuels (e.g. fuel oil), as well as for steam systems according to TRD 604 and hot water systems to DIN EN12828, systems in accordance to DIN EN12952-11

and DIN EN12953-9. The DWR is used to monitor maximum and minimum pressures. This pressure switch is "of special construction" and has been tested with 2 million operating cycles. TÜV and DVGW tests exist.



SIL 2 according IEC 61508-2

Technical data

Pressure connection

External thread G 1/2 (pressure gauge connection) to DIN 16 288 and internal thread G 1/4 to ISO 228 Part 1 (for gas applications internal thread permissible only up to 4 bar).

Switching device

Rugged housing (200) made of seawater resistant die cast aluminium.

Materials

Pressure bellows: Material no. 1.4571
Sensor housing: Material no. 1.4104
Switch housing: GD Al Si 12 (DIN 1725)

Mounting position

Vertically upright and horizontal.

Ambient temperature at switching device

-25 to +70°C,
Medium temperature -25 to +70°C. The maximum medium temperature at the pressure sensor must not exceed the permitted ambient temperature at the switching device. Temperatures may reach 85°C for short periods. Higher medium temperatures are possible provided the above limit values for the switching device are ensured by suitable measures (e.g. siphon).

Mounting

Directly on the pressure line (pressure gauge connection) or on a flat surface with two 4 mm Ø screws.

Calibration

The DWR series is calibrated for rising pressure. This means that the adjustable switching pressure on the scale corresponds to the switching point at rising pressure. The reset point is lower by the amount of the switching differential. (See also page 23, 2. Calibration at upper switching point). In version ...-203 the switching differential is adjustable. The basic calibration is maintained.

Bursting pressure

For all types ≥ 100 bar, verified by TÜV test.

Switching differential For values see Product Summary.

Contact arrangement Single pole change over switch.

Switching capacity	250 VAC		250 VDC	
	(ohm)	(ind)	(ohm)	(ohm)
Normal	8 A	5 A	0.3 A	8 A

Protection class IP 54 according to DIN 40 050

Component tested for

Steam

Systems according to TRBS

Hot water

Systems according to DIN EN12828

Fuel gases

DVGW work sheet G 260

Pressure tank

DIN EN764-7

Function

Pressure monitor or pressure limiter (with external interlock)

Direction of action

For maximum and minimum pressure monitoring (DWFS, SDBFS)

Sensor

"of special construction" by testing with 2 million cycles.

Product Summary

Type	Setting range	Switching differential (mean values)	Maximum working pressure	Dimensioned drawing
Pressure monitors without differential adjustment				p. 21 + 22
DWR06	0.1...0.6 bar	0.04 bar	6 bar	1 + 15
DWR1	0.2...1.6 bar	0.06 bar		
DWR3	0.2...2.5 bar	0.1 bar	16 bar	1 + 18
DWR6	0.5...6 bar	0.2 bar		
DWR625	0.5...6 bar	0.25 bar	25 bar	1 + 17
DWR16	3...16 bar	0.5 bar		
DWR25	4...25 bar	1.0 bar	63 bar	1 + 16
DWR40	8...40 bar	1.3 bar		
Switching differential adjustable				
DWR06-203	0.1...0.6 bar	0.08...0.5 bar	6 bar	1 + 15
DWR1-203	0.2...1.6 bar	0.15...0.6 bar		
DWR3-203	0.2...2.5 bar	0.17...1.2 bar	16 bar	1 + 18
DWR6-203	0.5...6 bar	0.3...1.4 bar		
DWR625-203	0.5...6 bar	0.4...2.5 bar	25 bar	1 + 17
DWR16-203	3...16 bar	0.75...3.15 bar		
DWR25-203	4...25 bar	1.3...6.0 bar	63 bar	1 + 16
DWR40-203	8...40 bar	2.3...6.6 bar		

-DWR
see page 66



DWR625-205

DWR

Pressure limiters

Especially suitable as a pressure limiter for fuel gases (DVGW work sheet G 260) and liquid fuels (e.g. fuel oil), as well as for steam systems according to TRBS and hot water systems to DIN EN12828, systems in accordance to DIN EN12952-11 and DIN EN12953-9.

The DWR-205/-206 is used to limit maximum and minimum pressures and has an internal interlock.



SIL 2 according to IEC 61508-2

Technical data

Pressure connection

External thread G 1/2 (pressure gauge connection) to DIN 16 288 and internal thread G 1/4 to ISO 228 Part 1 (for gas applications internal thread permissible only up to 4 bar).

Switching device

Rugged housing (200) made of seawater resistant die cast aluminium.

Materials

Pressure bellows: Material no. 1.4571
 Sensor housing: Material no. 1.4104
 Switch housing: GD Al Si 12 (DIN 1725)

Mounting position Vertically upright and horizontal.

Ambient temperature at switching device
 -25...+70°C

Medium temperature -25...+70°C.

The medium temperature at the pressure sensor must not exceed the permitted ambient temperature at the switching device. Temperatures may reach 85°C for short periods. Higher medium temperatures are possible provided the above limit values for the switching device are ensured by suitable measures (e.g. siphon).

Mounting

Directly on the pressure line (pressure gauge connection) or on a flat surface with two 4 mm Ø screws.

Calibration

The DWR-205 series is calibrated for rising pressure. This means that the adjustable switching pressure on the scale corresponds to the switching point at rising pressure. The reset point is lower by the amount of the switching differential. (See also page 23, 2. Calibration at upper switching point). The DWR-206 series is calibrated for falling pressure. This means that the adjustable switching pressure on the scale corresponds to the switching point at falling pressure. The reset point is higher by the amount of the switching differential. (See also page 23, 1. Calibration at lower switching point).

Bursting pressure For all types ≥ 100 bar, verified by TÜV test.

Switching differential For values see Product Summary.

Contact arrangement Single pole change over switch.

Switching capacity	250 VAC (ohm)	250 VDC (ohm)	24 VDC (ohm)
Normal	8 A	5 A	0.3 A

Protection class IP 54 according to DIN 40 050

Sealing P2

On request (can be fitted later).

Component tested for

Steam

System according to TRBS

Hot water

System according to DIN EN12828

Fuel gases

DVGW work sheet G 260

Pressure tank

DIN EN764-7

Function

Pressure limiter (with internal interlock)

Direction of action

For maximum and minimum pressure monitoring (SDBFS)

Sensor

"Of special construction" by testing with 2 million cycles.

Important: When selecting the limiter, it is necessary to decide whether the device is to be used for maximum or minimum pressure monitoring. The direction of action cannot be reversed at the pressure limiter.

Product Summary

Type	Setting range	Switching differential (mean values)	Maximum working pressure	Dimensioned drawing
Maximum pressure limiters				page 21 + 22
DWR06-205	0.1...0.6 bar	0.07 bar	6 bar	1 + 15
DWR1-205	0.2...1.6 bar	0.10 bar		
DWR3-205	0.2...2.5 bar	0.20 bar	16 bar	1 + 18
DWR6-205	0.5...6 bar	0.40 bar		
DWR625-205	0.5...6 bar	0.50 bar	25 bar	1 + 17
DWR16-205	3...16 bar	0.80 bar		
DWR25-205	4...25 bar	2.50 bar	63 bar	1 + 16
DWR40-205	8...40 bar	3.00 bar		

Minimum pressure limiters

DWR06-206	0.1...0.6 bar	0.07 bar	6 bar	1 + 15
DWR1-206	0.2...1.6 bar	0.10 bar		
DWR3-206	0.2...2.5 bar	0.20 bar	16 bar	1 + 18
DWR6-206	0.5...6 bar	0.40 bar		
DWR625-206	0.5...6 bar	0.50 bar	25 bar	1 + 17
DWR16-206	3...16 bar	0.80 bar		
DWR25-206	4...25 bar	2.50 bar	63 bar	1 + 16
DWR40-206	8...40 bar	3.00 bar		

Pressure monitors DWR... (page 55) can also be used as maximum pressure and minimum pressure limiters with external interlock. You will find other maximum pressure limiters with safety sensor, type series SDBAM..., on page 49. Types DWAM... can also be used with external interlock as maximum pressure limiters.