

Compact differential pressure switch Models DC, DCC

WIKA data sheet PV 35.40



Process Compact Series

Applications

- Pressure monitoring and control of processes
- Safety-critical applications in general process instrumentation, especially in the chemical and petrochemical industries, oil and gas industries, power generation incl. nuclear power plants, water/wastewater industries, mining
- For gaseous, liquid and aggressive media, also in aggressive ambience
- Filter and level monitoring

Special features

- No power supply needed for switching of electrical loads
- Robust switch enclosure from aluminium alloy or stainless steel 316L, IP66, NEMA 4X
- Setting ranges from 0 ... 160 mbar to 0 ... 40 bar with high static and high one-sided pressure up to 250 bar
- Ex ia version available
- 1 set point, SPDT or DPDT, high switching power up to AC 250 V, 15 A



Differential pressure switch, model DC

Description

These high-quality pressure switches have been developed especially for safety-critical applications. The high quality of the products and manufacturing in accordance with ISO 9001 ensure reliable monitoring of your plant. In production, the switches are traced by quality assurance software at every step and subsequently are 100 % tested.

In order to ensure as flexible operation as possible, the pressure switches are fitted with micro switches, which enable the switching of an electrical load of up to AC 250 V, 20 A directly.

For lower switching power ratings, such as for PLC applications, argon gas-filled micro switches with gold-plated contacts can be selected.

All wetted materials are from stainless steel as a standard. For applications with special requirements on the wetted parts, a version with Monel® is available.

By using a diaphragm measuring system, the model DC differential pressure switch is extremely robust and guarantees optimal operating characteristics and the highest measuring performances, with repeatability lower than 1 % of span.

The process connection with a centre distance of 54 mm lower mount allows an easy and comfortable mounting of a standard valve manifold.

Standard version

Measuring system

Double diaphragm with transmission shaft, without sealing elements

Switch enclosure

- Aluminium alloy, copper-free, epoxy resin coated
- Stainless steel 316L (only available for model DC)

Tamper-proof

Laser-engraved product label from stainless steel

Ingress protection

IP66 per EN/IEC 60529, NEMA 4X

Permissible temperature

Ambient T_{amb} : -30 ... +85 °C

Medium T_M : -30 ... +85 °C

Switch contact

Micro switches with fixed dead band

- 1 x SPDT (single pole double throw)
- 1 x DPDT (double pole double throw)

The DPDT function is realised with 2 simultaneously triggering SPDT micro switches within 2 % of the span.

Contact version		Electrical rating (resistive load)		Suitable for Ex ia option
		AC	DC	
A	1 x SPDT, silver	250 V, 15 A	24 V, 2 A, 125 V, 0.5 A, 220 V, 0.25 A	No
B	1 x SPDT, silver, hermetically sealed, argon gas filling ²⁾	250 V, 15 A	24 V, 2 A, 220 V, 0.5 A	Yes
C	1 x SPDT, gold-plated, hermetically sealed, argon gas filling ²⁾	125 V, 1 A	24 V, 0.5 A	Yes
G	1 x DPDT, silver	250 V, 1 A	24 V, 0.5 A	No

2) Permissible ambient temperature range: -30 ... +70 °C

Set point adjustment

The set point can be specified by the customer or factory-set within the setting range. Subsequent adjustment of the set point on site is made using the adjustment screw, which is covered by the access cover plate with lead seal option.

Repeatability of the set point

≤ 1 % of span

Please specify:

Set point, switching direction for the contact, e.g.:

Set point: 5 bar, rising

For optimal performance we suggest to adjust the set point between 25 ... 75 % of the setting range.

Ignition protection type (option)

- Ex ia I Ma (mines), only available for model DC with stainless steel switch enclosure
- Ex ia IIC T6/T4 ¹⁾ Ga (gas)
- Ex ia IIIC T85/T135 ¹⁾ Da (dust)

1) The temperature class is related to the ambient temperature range. See the type examination certificate for further details.

Safety-related maximum values

(only for optional Ex ia versions)

Maximum values	
Voltage U_i	DC 30 V
Current I_i	100 mA
Power P_i	0.75 W
Internal capacitance C_i	0 µF
Internal inductance L_i	0 mH

Example

Setting range: 0 ... 10 bar with one switch contact

Repeatability: 1 % of 10 bar = 0.1 bar

Dead band: (see table setting ranges)

2 x repeatability + dead band = 2 x 0.1 bar + 0.3 bar = 0.5 bar

Rising pressure: Adjust set point between 0.5 ... 10 bar.

Falling pressure: Adjust set point between 0 ... 9.5 bar.

Process connection

Stainless steel, lower mount (LM)

- ¼ NPT female (standard)
- ½ NPT, G ½ A, G ¼ A male via adapter
- ½ NPT, G ¼ female via adapter
- M20 x 1.5 male via adapter

Electrical connection

- ½ NPT female (standard)
- ¾ NPT, M20 x 1.5, G ½, G ¾ female
- Cable gland non-armoured, nickel-plated brass
- Cable gland non-armoured, stainless steel (AISI 304)
- Cable gland armoured, nickel-plated brass
- Cable gland armoured, stainless steel (AISI 304)
- MIL connector, 7-pin, DTL 5015

For cable connections to the internal terminal block use wire cross-sections between 0.5 ... 2.5 mm².

For the grounding cable connection to the protective conductor screws use max. 2.5 mm² for the internal screw and max. 4 mm² for the external screw.

Dielectric strength

Safety class I (IEC 61298-2: 2008)

Wetted parts, model DC

Setting range	Stainless steel version		NACE version (option) ¹⁾		Monel version (option)	
	Diaphragm	Process con- nection	Diaphragm	Process con- nection	Diaphragm	Process connection
0 ... 160 mbar	AISI 316	AISI 316L	Monel® 400	AISI 316L	Monel® 400	
0 ... 250 mbar						
0 ... 400 mbar						
0 ... 600 mbar						
0 ... 1 bar						
0 ... 2.5 bar						
0 ... 4 bar	AISI 304		Inconel® 718		-	
0 ... 6 bar						
0 ... 10 bar						
0 ... 16 bar	Inconel® 718				-	
0 ... 25 bar						
0 ... 40 bar						

1) NACE compliant to MR 0175, ISO 15156 and MR 0103

Wetted parts, model DCC

Setting range	Diaphragm	Process connection
0 ... 160 mbar	Inconel® 718	Aluminium alloy (EN AW-5082 per EN 573-3)
0 ... 250 mbar		
0 ... 400 mbar		
0 ... 600 mbar		
0 ... 1 bar		
0 ... 1.6 bar		
0 ... 2.5 bar		
0 ... 4 bar		
0 ... 6 bar		
0 ... 10 bar		

Sealing material for all models and versions: NBR

Mounting

- Mounting fixture from stainless steel (AISI 304)
- Option: Mounting bracket for 2" pipe mounting (AISI 304)

Weight

- approx. 5.4 kg, switch enclosure aluminium alloy
- approx. 5.9 kg, switch enclosure stainless steel

Setting range, model DC

Δp -cell	Setting range	Fixed dead band for contact version		Static / One-sided pressure
	in bar	1 contact A, B, C in mbar	1 contact G in mbar	in bar
L	0 ... 0.16	≤ 6	≤ 12	≤ 40, ≤ 100 or ≤ 160
	0 ... 0.25	≤ 8	≤ 20	
H	0 ... 0.4	≤ 20	≤ 40	
	0 ... 0.6	≤ 25	≤ 50	≤ 40, ≤ 100, ≤ 160 or ≤ 250
	0 ... 1	≤ 40	≤ 80	
	0 ... 2.5	≤ 70	≤ 170	
	0 ... 4	≤ 120	≤ 200	
	0 ... 6	≤ 180	≤ 250	
	0 ... 10	≤ 300	≤ 400	
	0 ... 16	≤ 480	≤ 600	
	0 ... 25	≤ 700	≤ 1,000	
V	0 ... 40	≤ 1,200	≤ 1,800	≤ 40, ≤ 100 or ≤ 160

Other available setting ranges:

- -40 ... +120 mbar, -60 ... +190 mbar, -200 ... +200 mbar, -300 ... +300 mbar, -500 ... +500 mbar
- -1.25 ... +1.25 bar, -2 ... +2 bar, -3 ... +3 bar, -5 ... +5 bar, -8 ... +8 bar, -12.5 ... +12.5 bar

Setting range, model DCC ¹⁾

Δp -cell	Setting range	Fixed dead band for contact version		Static / One-sided pressure
	in bar	1 contact A, B, C in mbar	1 contact G in mbar	in bar
L	0 ... 0.25	≤ 5	≤ 10	≤ 25
H	0 ... 1	≤ 30	≤ 50	
	0 ... 1.6	≤ 50	≤ 110	
	0 ... 2.5	≤ 80	≤ 170	
	0 ... 4	≤ 120	≤ 200	
	0 ... 6	≤ 120	≤ 200	

¹⁾ For clean gas or non-condensing vapour only

Other setting ranges on request.

Other Versions

- Ex ia version
- Cleaned for oxygen service
- Drying of wetted parts
- Offshore version ²⁾
- NACE compliant to MR 0175, ISO 15156 and MR 0103 ²⁾
- Wetted parts from Monel[®]

²⁾ WIKA recommends argon gas-filled contact versions

³⁾ Only available for model DC

Assembly

- Valve manifold for differential pressure measuring instruments, models IV30, IV31 and IV50 und IV51 see data sheet AC 09.23
- Diaphragm seals, see website
- Differential pressure gauge

Approvals

Logo	Description	Country
	EU declaration of conformity ■ Pressure equipment directive ■ Low voltage directive ■ RoHS directive ■ ATEX directive ¹⁾ (option) - I M 1 - II 1 GD	European Community
	IECEx ¹⁾ (option) - Ex ia I Ma - Ex ia IIC T6/T4 ²⁾ Ga - Ex ia IIIC T85/T135 ²⁾ Da	IECEx member states
	EAC (option) Hazardous areas	Eurasian Economic Community
	Ex-Ukraine (option) Hazardous areas	Ukraine
	CCC (option) Hazardous areas	China
	KOSHA (option) Hazardous areas	South Korea

1) Double marking ATEX and IECEx on the same product label

2) The temperature class is related to the ambient temperature range

Manufacturer's information and certifications

Logo	Description
	SIL 2 rating (option) , per IEC 61508 Functional safety Only available with contact version B or C

Certificates (option)

- 2.2 test report per EN 10204
- 3.1 inspection certificate per EN 10204

Approvals and certificates, see website

03/2021 EN

Technical drawing of the 2000 series hydraulic cylinder, showing front and side views with dimensions in mm.

Front View Dimensions:

- Total width: 150
- Distance from centerline to left mounting eye: 65
- Distance from centerline to right mounting eye: 69
- Mounting eye diameter: $\varnothing 6,5$
- Distance from centerline to mounting eye center: 54
- Distance between mounting eye centers: 113
- Distance from centerline to rear mounting eye: 12
- Distance from centerline to rear mounting eye center: 114
- Distance from centerline to rear mounting eye center (A/E): 64
- Distance from centerline to rear mounting eye center (A): 54
- Distance from centerline to rear mounting eye center (B): 54
- Distance from centerline to rear mounting eye center (C): 23
- Distance from centerline to rear mounting eye center (D): 70
- Distance from centerline to rear mounting eye center (E): 140
- Distance from centerline to rear mounting eye center (F): 208

Side View Dimensions:

- Distance from centerline to rear mounting eye center: 54
- Distance from centerline to rear mounting eye center: 114
- Distance from centerline to rear mounting eye center: 64
- Distance from centerline to rear mounting eye center: 12

A	$\ominus$ Process connection	C	Electrical connection
B	$\oplus$ Process connection	V	Vent

Model / Static - One-sided pressure / Δp -cell / Switch enclosure / Contact version / Setting range / Process connection / Electrical connection / Options

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Differential pressure switch Stainless steel switch enclosure Models DW, DW10

WIKA data sheet PV 35.42



Process Performance Series

Applications

- Pressure monitoring and control of processes
- Safety-critical applications in general process instrumentation, especially in the chemical and petrochemical industries, oil and gas industries, power generation incl. nuclear power plants, water/wastewater industries, mining
- For gaseous, liquid and aggressive media, also in aggressive ambience
- Filter and level monitoring

Special features

- No power supply needed for switching of electrical loads
- Robust switch enclosure from stainless steel 316L, IP66, NEMA 4X
- Setting ranges from 0 ... 16 mbar to 0 ... 40 bar with high static and high one-sided pressure up to 160 bar
- Ex ia version available
- 1 or 2 independent set points, SPDT or DPDT, high switching power up to AC 250 V, 20 A

Description

These high-quality pressure switches have been developed especially for safety-critical applications. The high quality of the products and manufacturing in accordance with ISO 9001 ensure reliable monitoring of your plant. In production, the switches are traced by quality assurance software at every step and subsequently are 100 % tested.

In order to ensure as flexible operation as possible, the pressure switches are fitted with micro switches, which enable the switching of an electrical load of up to AC 250 V, 20 A directly.

For lower switching power ratings, such as for PLC applications, argon gas-filled micro switches with gold-plated contacts can be selected.



Fig. left: Differential pressure switch for medium/high setting ranges, model DW

Fig. right: Differential pressure switch for low setting ranges, model DW10

All wetted materials are from stainless steel as a standard. For applications with special requirements on the wetted parts, a version with Monel® is available.

By using a diaphragm measuring system, the model DW differential pressure switch is extremely robust and guarantees optimal operating characteristics and the highest measuring performances, with repeatability lower than 1 % of span.

The process connection with a centre distance of 54 mm lower mount allows an easy and comfortable mounting of a standard valve manifold.

Standard version

Model DW

Double diaphragm with transmission shaft, without sealing elements

Model DW10

Single diaphragm with transmission shaft, without sealing elements

For clean gas or non-condensing vapour only.

Switch enclosure

Stainless steel 316L, tamper-proof. Laser-engraved product label from stainless steel.

Ingress protection

IP66 per EN/IEC 60529, NEMA 4X

Switch contact

Micro switches with fixed dead band

■ 1 x or 2 x SPDT (single pole double throw)

■ 1 x DPDT (double pole double throw)

Micro switches with adjustable dead band

■ 1 x SPDT (single pole double throw)

The DPDT function is realised with 2 simultaneously triggering SPDT micro switches within 0.5 % of the span.

Permissible temperature

Ambient T_{amb} : -30 ... +85 °C

Medium T_M : -30 ... +85 °C

Ignition protection type (option)

■ Ex ia I Ma (mines)

■ Ex ia IIC T6/T4 ¹⁾ Ga (gas)

■ Ex ia IIC T85/T135 ¹⁾ Da (dust)

¹⁾ The temperature class is related to the ambient temperature range. See the type examination certificate for further details.

Safety-related maximum values

(only for optional Ex ia versions)

Maximum values	
Voltage U_i	DC 30 V
Current I_i	100 mA
Power P_i	0.75 W
Internal capacitance C_i	0 μ F
Internal inductance L_i	0 mH

Contact version		Electrical rating (resistive load)		Suitable for Ex ia option
		AC	DC	
UN	1 x SPDT, silver	250 V, 15 A	24 V, 2 A, 125 V, 0.5 A, 220 V, 0.25 A	No
US	1 x SPDT, silver, hermetically sealed, argon gas filling ²⁾	250 V, 15 A	24 V, 2 A, 220 V, 0.5 A	Yes
UO	1 x SPDT, gold-plated, hermetically sealed, argon gas filling ²⁾	125 V, 1 A	24 V, 0.5 A	Yes
UG	1 x SPDT, gold-plated	125 V, 1 A	24 V, 0.5 A	No
UR	1 x SPDT, silver, adjustable dead band	250 V, 20 A	24 V, 2 A, 220 V, 0.5 A	Yes ³⁾
DN	2 x SPDT or 1 x DPDT, silver	250 V, 15 A	24 V, 2 A, 125 V, 0.5 A, 220 V, 0.25 A	No
DS	2 x SPDT or 1 x DPDT, silver, hermetically sealed, argon gas filling ²⁾	250 V, 15 A	24 V, 2 A, 220 V, 0.5 A	Yes
DO	2 x SPDT, or 1 x DPDT gold-plated, hermetically sealed, argon gas filling ²⁾	125 V, 1 A	24 V, 0.5 A	Yes
DG	2 x SPDT or 1 x DPDT, gold-plated	125 V, 1 A	24 V, 0.5 A	No

²⁾ Permissible ambient temperature range: -30 ... +70 °C

³⁾ WIKA recommends argon gas-filled contact versions, use of adjustable dead band allowed.

Set point adjustment

The set point can be specified by the customer or factory-set within the setting range. Subsequent adjustment of the set point on site is made using the adjustment screw, which is fastened to the switch and thus secured against loss.

Repeatability of the set point

≤ 1 % of span

Distance between set points

For versions with 2 x SPDT the distance between the set points must be > 5 % of the respective span.

Please specify:

Set point, switching direction for each contact, e.g.:

Set point 1: 3 bar, falling, set point 2: 6 bar, rising.

With two micro switches, the set points can be set independently of each other.

For optimal performance we suggest to adjust the set point between 25 ... 75 % of the span.

Example

Setting range: 0 ... 10 bar with one switch contact

Repeatability: 1 % of 10 bar = 0.1 bar

Dead band: (see table setting ranges)

2 x repeatability + dead band = 2 x 0.1 bar + 0.3 bar = 0.5 bar

Rising pressure: Adjust set point between 0.5 ... 10 bar.

Falling pressure: Adjust set point between 0 ... 9.5 bar.

Process connection

Stainless steel, lower mount (LM)

- 1/4 NPT female (standard)
- 1/2 NPT, G 1/2 A, G 1/4 A male via adapter
- 1/2 NPT, G 1/4 female via adapter
- M20 x 1.5 male via adapter

Electrical connection

- 1/2 NPT female (standard)
- 3/4 NPT, M20 x 1.5, G 1/2, G 3/4 female
- Cable gland non-armoured, nickel-plated brass
- Cable gland non-armoured, stainless steel (AISI 304)
- Cable gland armoured, nickel-plated brass
- Cable gland armoured, stainless steel (AISI 304)
- MIL connector, 7-pin, DTL 5015

For cable connections to the internal terminal block use wire cross-sections between 0.5 ... 2.5 mm².

For the grounding cable connection to the protective conductor screws use max. 2.5 mm² for the internal screw and max. 4 mm² for the external screw.

Dielectric strength

Safety class I (IEC 61298-2: 2008)

Wetted parts

Setting range	Stainless steel version		NACE version ¹⁾		Monel version	
	Diaphragm	Process connection	Diaphragm	Process connection	Diaphragm	Process connection
16 mbar	AISI 316	AISI 316L	-	-	-	
25 mbar						
40 mbar						
60 mbar						
160 mbar			Monel® 400	AISI 316L	Monel® 400	
250 mbar						
400 mbar						
600 mbar						
1 bar						
2.5 bar						
4 bar	AISI 304					
6 bar						
10 bar						
16 bar	Inconel® 718		Inconel® 718		-	
25 bar						
40 bar						

1) NACE compliant to MR 0175, ISO 15156 and MR 0103

Sealing material for all versions: NBR

Mounting

- Mounting fixture from stainless steel (AISI 304)
- Mounting bracket for 2" pipe mounting (AISI 304)

Weight

- Model DW: approx. 6.2 kg
- Model DW10: approx. 8.2 kg

Setting range, model DW

Δp -cell	Setting range	Fixed dead band for contact version		Adjustable dead band for contact version	Static / One-sided pressure
	in bar	1 contact UN, US, UO, UG in mbar	2 contacts DN, DS, DO, DG in mbar	1 contact UR in mbar	in bar
L	0 ... 0.16	≤ 6	≤ 6	25 ... 60	≤ 40, ≤ 100 or ≤ 160
	0 ... 0.25	≤ 8	≤ 8	30 ... 80	
-	0 ... 0.4	≤ 20	≤ 20	45 ... 120	
	0 ... 0.6	≤ 25	≤ 25	80 ... 200	
	0 ... 1	≤ 40	≤ 40	100 ... 270	
	0 ... 2.5	≤ 70	≤ 70	260 ... 700	
	0 ... 4	≤ 120	≤ 120	450 ... 1,150	
	0 ... 6	≤ 180	≤ 180	600 ... 1,600	
	0 ... 10	≤ 300	≤ 300	1,100 ... 2,800	
	0 ... 16	≤ 480	≤ 480	1,600 ... 3,500	
	0 ... 25	≤ 700	≤ 700	2,500 ... 5,500	
V	0 ... 40	≤ 1,200	≤ 1,200	on request	

Other available setting ranges:

- -40 ... +120 mbar, -60 ... +190 mbar, -200 ... +200 mbar, -300 ... +300 mbar, -500 ... +500 mbar
- -1.25 ... +1.25 bar, -2 ... +2 bar, -3 ... +3 bar, -5 ... +5 bar, -8 ... +8 bar, -12.5 ... +12.5 bar

Setting range, model DW10 ¹⁾

Δp -cell	Setting range	Fixed dead band for contact version		Adjustable dead band for contact version	Static / One-sided pressure
	in mbar	1 contact UN, US, UO, UG in mbar	2 contacts DN, DS, DO, DG in mbar	1 contact UR in mbar	in bar
-	0 ... 16	≤ 1.2	≤ 1.6	-	≤ 10 ²⁾
	0 ... 25	≤ 1.2	≤ 1.6	4 ... 10	≤ 10
	0 ... 40	≤ 1.6	≤ 2.2	5 ... 14	
	0 ... 60	≤ 2.5	≤ 3.0	6 ... 18	

1) For clean gas or non-condensing vapour only

2) One-sided pressure 2 bar

Other Versions

- Ex ia version
- Cleaned for oxygen service
- Drying of wetted parts
- Offshore version ³⁾
- NACE compliant to MR 0175, ISO 15156 and MR 0103 ³⁾
- Wetted parts from Monel[®]

3) WIKA recommends argon gas-filled contact versions

Assembly

- Valve manifold for differential pressure measuring instruments, models IV30, IV31 and IV50 und IV51 see data sheet AC 09.23
- Diaphragm seals, see website
- Differential pressure gauge

Approvals

Logo	Description	Country
 	EU declaration of conformity ■ Pressure equipment directive ■ Low voltage directive ■ RoHS directive ■ ATEX directive ¹⁾ (option) - I M 1 - II 1 GD	European Community
 	IECEx ¹⁾ (option) - Ex ia I Ma - Ex ia IIC T6/T4 ²⁾ Ga - Ex ia IIIC T85/T135 ²⁾ Da	IECEx member states
	EAC (option) Hazardous areas	Eurasian Economic Community
	Ex-Ukraine (option) Hazardous areas	Ukraine
	CCC (option) Hazardous areas	China
	KOSHA (option) Hazardous areas	South Korea

1) Double marking ATEX and IECEx on the same product label

2) The temperature class is related to the ambient temperature range

Manufacturer's information and certifications

Logo	Description
	SIL 2 rating (option) , per IEC 61508 Functional safety Only available with contact version US or UO

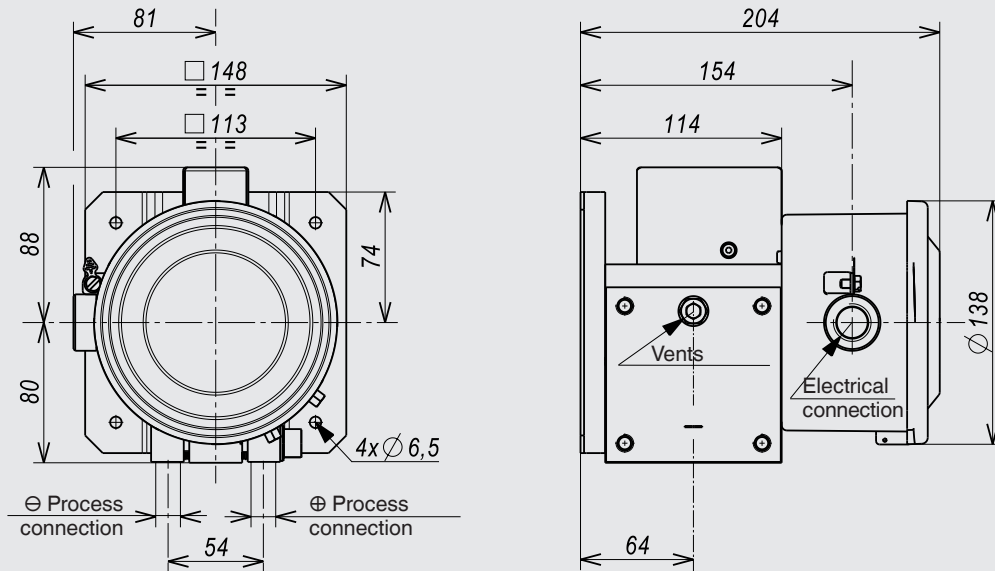
Certificates (option)

- 2.2 test report per EN 10204
- 3.1 inspection certificate per EN 10204

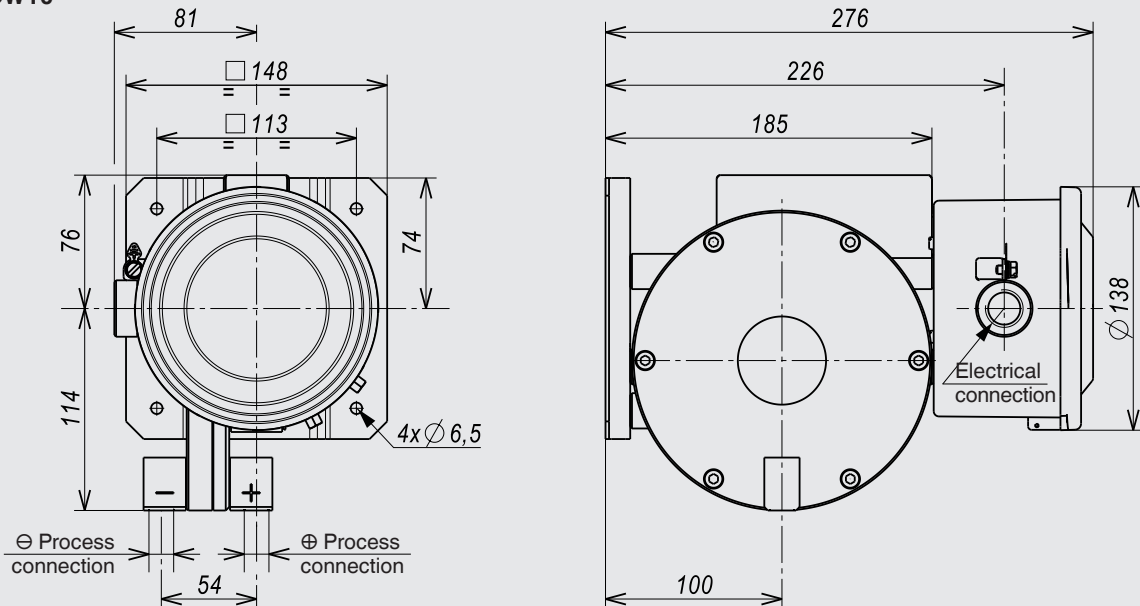
Approvals and certificates, see website

Dimensions in mm

Model DW



Model DW10



Ordering information

Model / Δp -cell / Static - One-sided pressure / Contact version / Setting range / Process connection / Electrical connection / Options

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Differential pressure switch Flameproof enclosure Ex d Models DA, DA10

WIKA data sheet PV 35.43



Process Performance Series

Applications

- Pressure monitoring and control of processes
- Safety-critical applications in general process instrumentation, especially in the chemical and petrochemical industries, oil and gas industries, power generation incl. nuclear power plants, water/wastewater industries, mining
- For gaseous, liquid and aggressive media, also in aggressive ambience
- Filter and level monitoring

Special features

- No power supply needed for switching of electrical loads
- Robust switch enclosure from aluminium alloy, IP66, NEMA 4X
- Setting ranges from 0 ... 16 mbar to 0 ... 40 bar with high static and high one-sided pressure up to 160 bar
- Repeatability: $\leq 1\%$ of span
- 1 or 2 independent set points, SPDT or DPDT, high switching power up to AC 250 V, 20 A



Fig. left: Differential pressure switch for medium/high setting ranges, model DA

Fig. right: Differential pressure switch for low setting ranges, model DA10

Description

These high-quality pressure switches have been developed especially for safety-critical applications. The high quality of the products and manufacturing in accordance with ISO 9001 ensure reliable monitoring of your plant. In production, the switches are traced by quality assurance software at every step and subsequently are 100 % tested.

In order to ensure as flexible operation as possible, the pressure switches are fitted with micro switches, which enable the switching of an electrical load of up to AC 250 V, 20 A directly.

For lower switching power ratings, such as for PLC applications, argon gas-filled micro switches with gold-plated contacts can be selected.

All wetted materials are from stainless steel as a standard. For applications with special requirements on the wetted parts, a version with Monel® is available.

By using a diaphragm measuring system, the model DA differential pressure switch is extremely robust and guarantees optimal operating characteristics and the highest measuring performances, with repeatability lower than 1 % of span.

The process connection with a centre distance of 54 mm lower mount allows an easy and comfortable mounting of a standard valve manifold.

Standard version

Model DA

Double diaphragm with transmission shaft, without sealing elements

Model DA10

Single diaphragm with transmission shaft without sealing elements

For clean gas or non-condensing vapour only.

Switch enclosure

Aluminium alloy, copper-free, epoxy resin coated, tamper-proof. Laser-engraved product label from stainless steel

Ingress protection

IP66 per EN/IEC 60529, NEMA 4X

Switch contact

Micro switches with fixed dead band

■ 1 x or 2 x SPDT (single pole double throw)

■ 1 x DPDT (double pole double throw)

Micro switches with adjustable dead band

■ 1 x SPDT (single pole double throw)

The DPDT function is realised with 2 simultaneously triggering SPDT micro switches within 0.5 % of the span.

Permissible temperature

Ambient T_{amb} : -30 ... +85 °C

Medium T_M : -30 ... +85 °C

Ignition protection type

■ Ex d IIC T6/T4 ¹⁾ Ga/Gb (gas)

■ Ex ta/tb IIIC T85/T135 ¹⁾ Da/Db (dust)

1) The temperature class is related to the ambient temperature range. See the type examination certificate for further details

Contact version		Electrical rating (resistive load)	
		AC	DC
UN	1 x SPDT, silver	250 V, 15 A	24 V, 2 A, 125 V, 0.5 A, 220 V, 0.25 A
US	1 x SPDT, silver, hermetically sealed, argon gas filling ²⁾	250 V, 15 A	24 V, 2 A, 220 V, 0.5 A
UO	1 x SPDT, gold-plated, hermetically sealed, argon gas filling ²⁾	125 V, 1 A	24 V, 0.5 A
UG	1 x SPDT, gold-plated	125 V, 1 A	24 V, 0.5 A
UR	1 x SPDT, silver, adjustable dead band	250 V, 20 A	24 V, 2 A, 220 V, 0.5 A
DN	2 x SPDT or 1 x DPDT, silver	250 V, 15 A	24 V, 2 A, 125 V, 0.5 A, 220 V, 0.25 A
DS	2 x SPDT or 1 x DPDT, silver, hermetically sealed, argon gas filling ²⁾	250 V, 15 A	24 V, 2 A, 220 V, 0.5 A
DO	2 x SPDT, or 1 x DPDT gold-plated, hermetically sealed, argon gas filling ²⁾	125 V, 1 A	24 V, 0.5 A
DG	2 x SPDT or 1 x DPDT, gold-plated	125 V, 1 A	24 V, 0.5 A

2) Permissible ambient temperature range: -30 ... +70 °C

Set point adjustment

The set point can be specified by the customer or factory-set within the setting range. Subsequent adjustment of the set point on site is made using the adjustment screw, which is fastened to the switch and thus secured against loss.

Repeatability of the set point

≤ 1 % of span

Distance between set points

For versions with 2 x SPDT the distance between the set points must be > 5 % of the respective span.

Please specify:

Set point, switching direction for each contact, e.g.:

Set point 1: 3 bar, falling, set point 2: 6 bar, rising.

With two micro switches, the set points can be set independently of each other.

For optimal performance we suggest to adjust the set point between 25 ... 75 % of the span.

Example

Setting range: 0 ... 10 bar with one switch contact

Repeatability: 1 % of 10 bar = 0.1 bar

Dead band: (see table setting ranges)

2 x repeatability + dead band = 2 x 0.1 bar + 0.3 bar = 0.5 bar

Rising pressure: Adjust set point between 0.5 ... 10 bar.

Falling pressure: Adjust set point between 0 ... 9.5 bar.

Process connection

Stainless steel, lower mount (LM)

- 1/4 NPT female (standard)
- 1/2 NPT, G 1/2 A, G 1/4 A male via adapter
- 1/2 NPT, G 1/4 female via adapter
- M20 x 1.5 male via adapter

Electrical connection

- 1/2 NPT female (standard)
- 3/4 NPT, M20 x 1.5, G 1/2, G 3/4 female
- Cable gland non-armoured, Ex d, nickel-plated brass
- Cable gland non-armoured, Ex d, stainless steel (AISI 304)
- Cable gland armoured, Ex d, nickel-plated brass
- Cable gland armoured, Ex d, stainless steel (AISI 304)

For cable connections to the internal terminal block use wire cross-sections between 0.5 ... 2.5 mm².

For the grounding cable connection to the protective conductor screws use max. 2.5 mm² for the internal screw and max. 4 mm² for the external screw.

Dielectric strength

Safety class I (IEC 61298-2: 2008)

Wetted parts

Setting range	Stainless steel version		NACE ¹⁾ version		Monel version			
	Diaphragm	Process connection	Diaphragm	Process connection	Diaphragm	Process connection		
16 mbar	AISI 316	AISI 316L	-	-	-			
25 mbar								
40 mbar								
60 mbar								
160 mbar			Monel® 400	AISI 316L	Monel® 400			
250 mbar								
400 mbar								
600 mbar								
1 bar								
2.5 bar								
4 bar	AISI 304	AISI 316L	Monel® 400	-				
6 bar								
10 bar								
16 bar	Inconel® 718					Inconel® 718	-	
25 bar								
40 bar								

1) NACE compliant to MR 0175, ISO 15156 and MR 0103

Sealing material for all versions: NBR

Mounting

- Mounting fixture from stainless steel (AISI 304)
- Mounting bracket for 2" pipe mounting (AISI 304)

Weight

- Model DA: approx. 7.2 kg
- Model DA10: approx. 10 kg

Setting range, model DA

Δp -cell	Setting range	Fixed dead band for contact version		Adjustable dead band for contact version	Static / One-sided pressure
	in bar	1 contact UN, US, UO, UG in mbar	2 contacts DN, DS, DO, DG in mbar	1 contact UR in mbar	in bar
L	0 ... 0.16	≤ 6	≤ 6	25 ... 60	≤ 40, ≤ 100 or ≤ 160
	0 ... 0.25	≤ 8	≤ 8	30 ... 80	
-	0 ... 0.4	≤ 20	≤ 20	45 ... 120	
	0 ... 0.6	≤ 25	≤ 25	80 ... 200	
	0 ... 1	≤ 40	≤ 40	100 ... 270	
	0 ... 2.5	≤ 70	≤ 70	260 ... 700	
	0 ... 4	≤ 120	≤ 120	450 ... 1,150	
	0 ... 6	≤ 180	≤ 180	600 ... 1,600	
	0 ... 10	≤ 300	≤ 300	1,100 ... 2,800	
	0 ... 16	≤ 480	≤ 480	1,600 ... 3,500	
	0 ... 25	≤ 700	≤ 700	2,500 ... 5,500	
V	0 ... 40	≤ 1,200	≤ 1,200	on request	

Other available setting ranges:

- -40 ... +120 mbar, -60 ... +190 mbar, -200 ... +200 mbar, -300 ... +300 mbar, -500 ... +500 mbar
- -1.25 ... +1.25 bar, -2 ... +2 bar, -3 ... +3 bar, -5 ... +5 bar, -8 ... +8 bar, -12.5 ... +12.5 bar

Setting range, model DA10 ¹⁾

Δp -cell	Setting range	Fixed dead band for contact version		Adjustable dead band for contact version	Static / One-sided pressure
	in mbar	1 contact UN, US, UO, UG in mbar	2 contacts DN, DS, DO, DG in mbar	1 contact UR in mbar	in bar
-	0 ... 16	≤ 1.2	≤ 1.6	-	≤ 10 ²⁾
	0 ... 25	≤ 1.2	≤ 1.6	4 ... 10	≤ 10
	0 ... 40	≤ 1.6	≤ 2.2	5 ... 14	
	0 ... 60	≤ 2.5	≤ 3.0	6 ... 18	

1) For clean gas or non-condensing vapour only

2) One-sided pressure 2 bar

Other Versions

- Cleaned for oxygen service
- Drying of wetted parts
- Offshore version ³⁾
- NACE compliant to MR 0175, ISO 15156 and MR 0103 ³⁾
- Wetted parts from Monel®

3) WIKA recommends argon gas-filled contact versions

Assembly

- Valve manifold for differential pressure measuring instruments, models IV30, IV31 and IV50 und IV51 see data sheet AC 09.23
- Diaphragm seals, see website
- Differential pressure gauge

Approvals

Logo	Description	Country
	EU declaration of conformity ■ Pressure equipment directive ■ Low voltage directive ■ RoHS directive ■ ATEX directive ¹⁾ - II 1/2 GD	European Community
	IECEx ¹⁾ Ex d IIC T6/T4 ²⁾ Ga/Gb Ex d IIC T85/T135 ²⁾ Da/Db	IECEx member states
	EAC (option) Hazardous areas	Eurasian Economic Community
	Ex-Ukraine (option) Hazardous areas	Ukraine
	CCC (option) Hazardous areas	China
	KOSHA (option) Hazardous areas	South Korea
	INMETRO ■ Metrology, measurement technology ■ Hazardous areas	Brazil

1) Double marking ATEX and IECEx on the same product label

2) The temperature class is related to the ambient temperature range

Manufacturer's information and certifications

Logo	Description
	SIL 2 rating (option) , per IEC 61508 Functional safety Only available with contact version US or UO

Certificates (option)

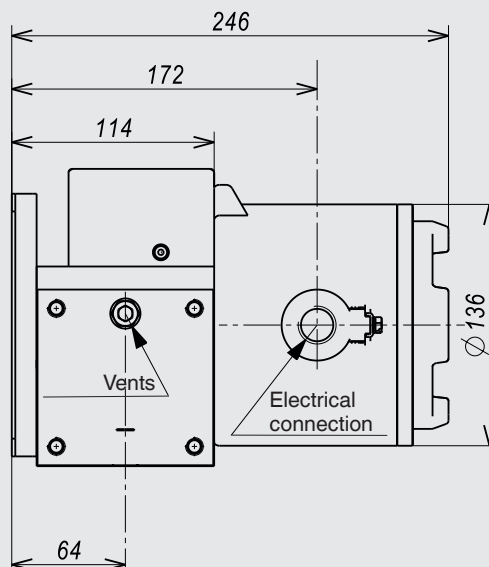
- 2.2 test report per EN 10204
- 3.1 inspection certificate per EN 10204

Approvals and certificates, see website

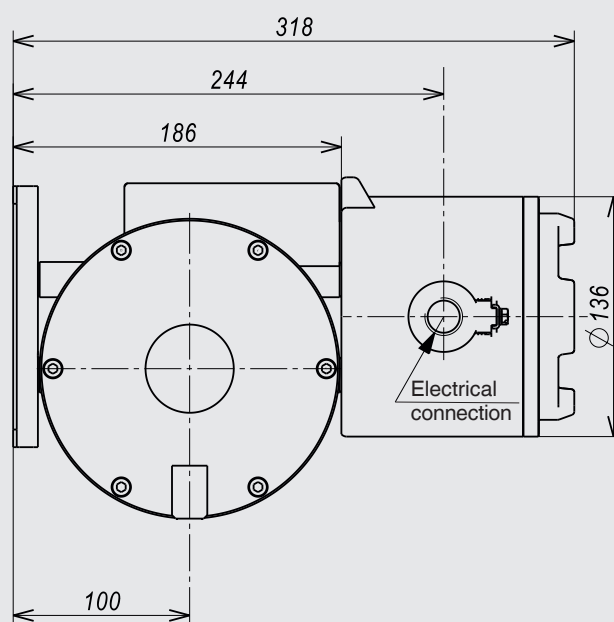
11/2025 EN

Technical drawing of the front view of a pressure washer. The drawing shows a circular body with a handle on the left and a trigger gun on the right. Dimensions are given in millimeters.

- Top width: 87
- Distance between top mounting holes: 148
- Distance between bottom mounting holes: 113
- Total height: 88
- Distance from top to trigger gun: 74
- Distance from bottom to trigger gun: 79,5
- Trigger gun diameter: 4x 6,5
- Warning label: NON APRIRE SOTTO TENSIONE, AVVERTENZA
- Bottom width: 54
- Distance from left process connection to center: 87
- Distance from right process connection to center: 87



Technical drawing of the front view of a pressure transmitter. The drawing shows a circular face with a scale from 0 to 100% and a needle. The scale is labeled "0 10 20 30 40 50 60 70 80 90 100" and "0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10". The needle points to approximately 45%. The face also has text: "NOW APRIRE", "READY 3M15-5", "MARKING", "SOFT BEFORE ONE", and "TENS ONE". The drawing includes dimensions: 87 (width), 148 (width), 113 (width), 79 (height), 74 (height), 115 (height), 4x Ø 6.5 (hole size), 54 (width), and 148 (width). It also shows "Process connection" ports on the left and right.



Model / Δp-cell / Static - One-sided pressure / Contact version / Setting range / Process connection / Electrical connection / Options

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Absolute pressure switch Stainless steel switch enclosure Models APW, APW10

WIKA data sheet PV 35.49



Process Performance Series

Applications

- Absolute pressure monitoring and control of processes
- Safety-critical applications in general process instrumentation, especially in the chemical and petrochemical industries, oil and gas industries, power generation incl. nuclear power plants, water/wastewater industries, mining
- For gaseous, liquid and aggressive media, also in aggressive ambience

Special features

- No power supply needed for switching of electrical loads
- Robust switch enclosure from stainless steel 316L, IP66, NEMA 4X
- Setting ranges from 0 ... 25 mbar abs. to 0 ... 1.5 bar abs.
- Repeatability: $\leq 1\%$ of span
- 1 or 2 independent set points, SPDT or DPDT, high switching power up to AC 250 V, 20 A



Fig. left: For medium/high setting ranges, model APW
Fig. right: For low setting ranges, model APW10

Description

These high-quality pressure switches have been developed especially for safety-critical applications. The high quality of the products and manufacturing in accordance with ISO 9001 ensure reliable monitoring of your plant. In production, the switches are traced by quality assurance software at every step and subsequently are 100 % tested.

In order to ensure as flexible operation as possible, the absolute pressure switches are fitted with micro switches, which enable the switching of an electrical load of up to AC 250 V, 20 A directly.

For lower switching power ratings, such as for PLC applications, argon gas-filled micro switches with gold-plated contacts can be selected.

All wetted materials are from stainless steel as a standard.

By using a diaphragm measuring system, the model APW absolute pressure switch is extremely robust and guarantees optimal operating characteristics and the highest measuring performances, with repeatability lower than 1 % of span.

Standard version

Measuring system

Single diaphragm with transmission shaft, without sealing elements

Switch enclosure

Stainless steel 316L, tamper-proof. Laser-engraved product label from stainless steel.

Ingress protection

IP66 per EN/IEC 60529, NEMA 4X

Switch contact

Micro switches with fixed dead band

■ 1 x or 2 x SPDT (single pole double throw)

■ 1 x DPDT (double pole double throw)

Micro switches with adjustable dead band

■ 1 x SPDT (single pole double throw)

The DPDT function is realised with 2 simultaneously triggering SPDT micro switches within 0.5 % of the span.

Permissible temperature

Ambient	T6/T85°C	T _a	-30 ... +60 °C
	T6/T135°C	T _a	-30 ... +85 °C
	Other versions	T _a	-30 ... +85 °C
Medium		T _M	-30 ... +85 °C

Ex marking (option)

- Ex ia I Ma
- Ex ia IIC T6/T4 ¹⁾ Ga
- Ex ia IIC T85°C/T135°C ¹⁾ Da IP66

¹⁾ The temperature class is related to the ambient temperature range. See the type examination certificate for further details

Safety-related maximum values

(only for optional Ex ia versions)

Maximum values	
Voltage U _i	DC 30 V
Current I _i	100 mA
Power P _i	0.75 W
Internal capacitance C _i	0 µF
Internal inductance L _i	0 mH

Contact version		Electrical rating (resistive load)		Suitable for Ex ia option
		AC	DC	
UN	1 x SPDT, silver	250 V, 15 A	24 V, 2 A, 125 V, 0.5 A, 220 V, 0.25 A	No
US	1 x SPDT, silver, hermetically sealed, argon gas filling ²⁾	250 V, 15 A	24 V, 2 A, 220 V, 0.5 A	Yes
UO	1 x SPDT, gold-plated, hermetically sealed, argon gas filling ²⁾	125 V, 1 A	24 V, 0.5 A	Yes
UG	1 x SPDT, gold-plated	125 V, 1 A	24 V, 0.5 A	No
UR	1 x SPDT, silver, adjustable dead band	250 V, 20 A	24 V, 2 A, 220 V, 0.5 A	Yes ³⁾
DN	2 x SPDT or 1 x DPDT, silver	250 V, 15 A	24 V, 2 A, 125 V, 0.5 A, 220 V, 0.25 A	No
DS	2 x SPDT or 1 x DPDT, silver, hermetically sealed, argon gas filling ²⁾	250 V, 15 A	24 V, 2 A, 220 V, 0.5 A	Yes
DO	2 x SPDT or 1 x DPDT gold-plated, hermetically sealed, argon gas filling ²⁾	125 V, 1 A	24 V, 0.5 A	Yes
DG	2 x SPDT or 1 x DPDT, gold-plated	125 V, 1 A	24 V, 0.5 A	No

²⁾ Maximum permissible ambient temperature range: -30 ... +70 °C

³⁾ WIKA recommends argon gas-filled contact versions, use of adjustable dead band allowed.

Set point adjustment

The set point can be specified by the customer or factory-set within the setting range. Subsequent adjustment of the set point on site is made using the adjustment screw, which is fastened to the switch and thus secured against loss.

Repeatability of the set point

≤ 1 % of span

Distance between set points

For versions with 2 x SPDT the distance between the set points must be > 5 % of the respective span.

Please specify:

Set point, switching direction for each contact, e.g.:

Set point 1: 100 mbar abs., falling,

set point 2: 150 mbar abs., rising.

With two micro switches, the set points can be set independently of each other.

For optimal performance we suggest to adjust the set point between 25 ... 75 % of the span.

Example

Setting range: 0 ... 1 bar abs. with one switch contact

Repeatability: 1 % of 1 bar abs. = 0.01 bar abs.

Dead band: (see table setting ranges)

2 x repeatability + dead band =

2 x 0.01 bar abs. + 0.04 bar abs. = 0.06 bar abs.

Rising pressure: Adjust set point between 0.06 ... 1 bar abs.

Falling pressure: Adjust set point between 0 ... 0.94 bar abs.

Process connection

Stainless steel, lower mount (LM)

- ¼ NPT female (standard)
- ½ NPT, G ½ A, G ¼ A male via adapter
- ½ NPT, G ¼ female via adapter
- M20 x 1.5 male via adapter

Wetted parts

Diaphragm: AISI 316

Process connection: AISI 316L

Sealing material: NBR

Mounting

- Mounting fixture from stainless steel (AISI 304)
- Option: Mounting bracket for 2" pipe mounting (AISI 304)

Electrical connection

- ½ NPT female (standard)
- ¾ NPT, M20 x 1.5, G ½, G ¾ female
- Cable gland non-armoured, Ex d, nickel-plated brass
- Cable gland non-armoured, Ex d, stainless steel (AISI 304)
- Cable gland armoured, Ex d, nickel-plated brass
- Cable gland armoured, Ex d, stainless steel (AISI 304)

For cable connections to the internal terminal block use wire cross-sections between 0.5 ... 2.5 mm².

For the grounding cable connection to the protective conductor use max. 2.5 mm² for the internal screw and max. 4 mm² for the external screw.

Dielectric strength

Safety class I (IEC 61298-2: 2008)

Weight

- Model APW: approx. 5.5 kg
- Model APW10: approx. 8.2 kg

Setting range, model APW

Measuring cell	Setting range	Working range	Proof pressure	Fixed dead band for contact version		Adjustable dead band for contact version
	in bar abs.	in bar abs.	in bar abs.	1 contact UN, US, UO, UG in mbar abs.	2 contacts DN, DS, DO, DG in mbar abs.	1 contact UR in mbar abs.
L	0 ... 0.16	0 ... 1.5	11	≤ 5	≤ 5	20 ... 60
	0 ... 0.25			≤ 8	≤ 8	30 ... 90
H	0 ... 0.4			≤ 20	≤ 20	30 ... 90
	0 ... 0.6			≤ 25	≤ 25	40 ... 125
	0 ... 1			≤ 30	≤ 30	100 ... 270
	0 ... 1.5			≤ 65	≤ 65	110 ... 320

Setting range, model APW10

Measuring cell	Setting range	Working range	Proof pressure	Fixed dead band for contact version		Adjustable dead band for contact version
	in mbar abs.	in bar abs.	in bar abs.	1 contact UN, US, UO, UG in mbar abs.	2 contacts DN, DS, DO, DG in mbar abs.	1 contact UR in mbar abs.
10	0 ... 25	0 ... 1	2	≤ 1.2	≤ 1.6	3 ... 8
	0 ... 40			≤ 1.6	≤ 2.2	4 ... 11
	0 ... 60			≤ 2.0	≤ 2.5	5 ... 14

Other Versions

- Cleaned for oxygen service
- Drying of wetted parts
- Version for ammonia applications ¹⁾
- Tropical version (suitable for environments with increased air humidity) ¹⁾
- Geothermal version ¹⁾
- Offshore version ¹⁾

¹⁾ WIKA recommends argon gas-filled contact versions

Assembly

- Shut-off valve; model 910.11; see data sheet AC 09.02
- Needle valve and multiport valve; models IV10, IV11; see data sheet AC 09.22
- Block-and-bleed valve; models IV20, IV21; see data sheet AC 09.19

Approvals

Logo	Description	Country
	EU declaration of conformity ■ Pressure equipment directive ■ Low voltage directive ■ RoHS directive ■ ATEX directive ²⁾ I M 1 II 1 GD	European Community
	IECEx ²⁾ Ex ia I Ma Ex ia IIC T6/T4 ³⁾ Ga Ex ia IIIC T85°C/T135°C ³⁾ Da IP66	International
	EAC (option) Hazardous areas ²⁾	Eurasian Economic Community
	Ex-Ukraine (option) Hazardous areas ²⁾	Ukraine
	CCC (option) Hazardous areas ²⁾	China
	KOSHA (option) Hazardous areas ²⁾	South Korea

²⁾ Double marking ATEX and IECEx on the same product label. Country-specific Ex marking according to selected option.

³⁾ The temperature class is related to the ambient temperature range

Manufacturer's information and certifications

Logo	Description
	SIL 3-capable (option) Functional safety per IEC 61508 Includes performance level calculation according to ISO 13849-1

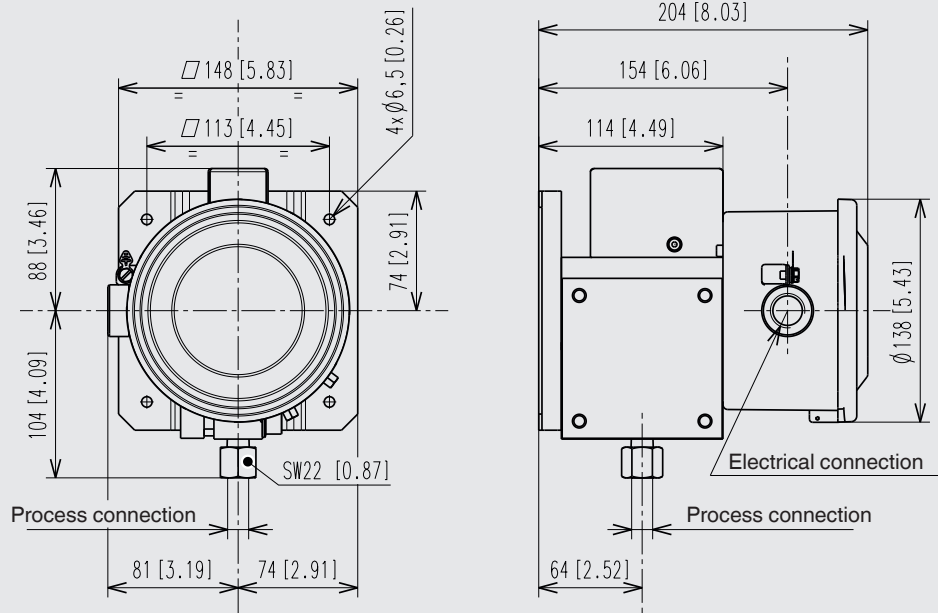
Certificates (option)

- 2.2 test report per EN 10204
- 3.1 inspection certificate per EN 10204

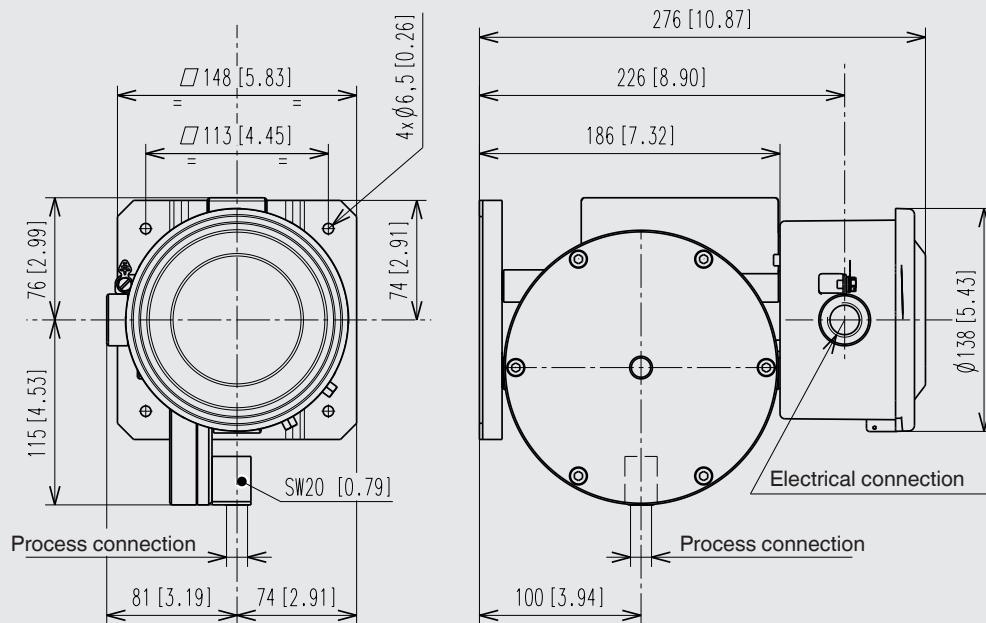
Approvals and certificates, see website

Dimensions in mm

Model APW



Model APW10



Ordering information

Model / Measuring cell / Contact version / Setting range / Process connection / Electrical connection / Options

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We reserve the right to make modifications to the specifications and materials.



Differential pressure switch

For very low setting ranges

Model DW03UN

WIKA data sheet PV 35.50



Process Performance Series

Applications

- Differential pressure monitoring and control of processes
- Safety-critical applications in general process instrumentation, especially in HVAC and power generation incl. nuclear power plants
- For gaseous and dry media

Special features

- No power supply needed for switching of electrical loads
- Robust switch enclosure from stainless steel 316L, IP66, NEMA 4X
- Setting ranges from 0.3 ... 2.5 mbar to 0.7 ... 16 mbar with high working pressure and high static pressure up to 300 mbar
- Intrinsic safety Ex ia available
- 1 set point, SPDT, high switching power up to AC 250 V, 10 A



Differential pressure switch, model DW03UN

Description

These high-quality differential pressure switches have been developed especially for safety-critical applications. The high quality of the products and manufacturing in accordance with ISO 9001 ensure reliable monitoring of your plant. In production, the switches are traced by quality assurance software at every step and subsequently are 100 % tested.

In order to ensure as flexible operation as possible, the differential pressure switches are fitted with micro switches, which enable the switching of an electrical load of up to AC 250 V, 10 A directly.

By using a diaphragm measuring system, the model DW03UN differential pressure switch is extremely robust and guarantees optimal operating characteristics and the highest measuring performances, with repeatability lower than 1 % of span.

The process connection with a centre distance of 54 mm lower mount allows an easy and comfortable mounting of a standard valve manifold.

Standard version

Measuring system

Single diaphragm

For clean gas or non-condensing vapour only

Switch enclosure

Stainless steel 316L, tamper-proof. Laser-engraved product label from stainless steel.

Ingress protection

IP66 per EN/IEC 60529, NEMA 4X

Switch contact

Micro switches with fixed dead band
1 x SPDT (single pole double throw)

Permissible temperature

Ambient	T6/T85°C	T _a	-30 ... +60 °C
	T4/T135°C	T _a	-30 ... +85 °C
	Other versions	T _a	-30 ... +85 °C
Medium		T _M	-30 ... +85 °C

Ex marking (option)

- Ex ia I Ma
- Ex ia IIC T6/T4 ¹⁾ Ga
- Ex ia IIC T85°C/T135°C ¹⁾ Da IP66

¹⁾ The temperature class is related to the ambient temperature range. See the type examination certificate for further details

Safety-related maximum values

(only for optional Ex ia versions)

Maximum values	
Voltage U _i	DC 30 V
Current I _i	100 mA
Power P _i	0.75 W
Internal capacitance C _i	0 µF
Internal inductance L _i	0 mH

Contact version		Electrical rating (resistive load)		Suitable for Ex ia option
		AC	DC	
UN	1 x SPDT, silver	250 V, 10 A	125 V, 0.1 A	Yes

Set point adjustment

The set point can be specified by the customer or factory-set within the setting range. Subsequent adjustment of the set point on site is made using the adjustment screw, which is fastened to the switch and thus secured against loss.

Repeatability of the set point

≤ 1 % of span

Please specify:

Set point, switching direction for the contact, e.g.:

Set point: 5 mbar, falling

For optimal performance we suggest to adjust the set point between 25 ... 75 % of the span.

Example

Setting range: 0.4 ... 10 mbar with one switch contact

Repeatability: 1 % of 9.6 mbar = 0.096 mbar

Dead band: (see table setting ranges)

2 x repeatability + dead band = 2 x 0.096 mbar + 0.3 mbar = 0.492 mbar.

Rising pressure: Adjust set point between 0.892 ... 10 mbar.

Falling pressure: Adjust set point between 0.4 ... 9.508 mbar.

Process connection

Lower mount (LM)

- ¼ NPT female (standard)
- ½ NPT, G ½ A, G ¼ A male via adapter
- ½ NPT, G ¼ female via adapter
- M20 x 1.5 male via adapter

Wetted parts

Diaphragm: Glass-fibre reinforced NBR

Process connection: Aluminium casting alloy,
Anticorodal® UNI 3571

Other parts: Stainless steel, epoxy resin coated

Mounting

- Mounting fixture from stainless steel (AISI 304)
- Option: Mounting bracket for 2" pipe mounting (AISI 304)

Electrical connection

- ½ NPT female (standard)
- ¾ NPT, M20 x 1.5, G ½, G ¾ female
- Cable gland non-armoured, nickel-plated brass
- Cable gland non-armoured, stainless steel (AISI 304)
- Cable gland armoured, nickel-plated brass
- Cable gland armoured, stainless steel (AISI 304)
- MIL connector, 7-pin, DTL 5015

For cable connections to the internal terminal block use wire cross-sections between 0.5 ... 2.5 mm².

For the grounding cable connection to the protective conductor use max. 4 mm² for the internal and external screw.

Dielectric strength

Safety class I (IEC 61298-2: 2008)

Weight

- approx. 2.2 kg

Setting range

Setting range in mbar	Working range in mbar	One-sided pressure in mbar	Static pressure in mbar	Fixed dead band for contact version UN
0.3 ... 2.5	0 ... 2.5	≤ 6	≤ 300	≤ 0.2
0.4 ... 4	0 ... 4	≤ 10		≤ 0.3
0.4 ... 6	0 ... 6	≤ 25		≤ 0.3
0.4 ... 10	0 ... 10	≤ 25		≤ 0.3
0.7 ... 16	0 ... 16	≤ 40		≤ 0.5

For clean gas or non-condensing vapour only

Other Versions

Cleaned for oxygen service

Assembly

Valve manifold for differential pressure measuring instruments, models IV30, IV31 and IV50 und IV51 see data sheet AC 09.23

Approvals

Logo	Description	Country
	EU declaration of conformity ■ Pressure equipment directive ■ Low voltage directive ■ RoHS directive ■ ATEX directive ¹⁾ - I M 1 - II 1 GD	European Community
	IECEx ¹⁾ - Ex ia I Ma - Ex ia IIC T6/T4 ²⁾ Ga - Ex ia IIIC T85°C/T135°C ²⁾ Da IP66	International
	EAC (option) Hazardous areas ¹⁾	Eurasian Economic Community
	Ex-Ukraine (option) Hazardous areas ¹⁾	Ukraine
	CCC (option) Hazardous areas ¹⁾	China
	KOSHA (option) Hazardous areas ¹⁾	South Korea

¹⁾ Double marking ATEX and IECEx on the same product label. Country-specific Ex marking according to selected option.

²⁾ The temperature class is related to the ambient temperature range

Manufacturer's information and certifications

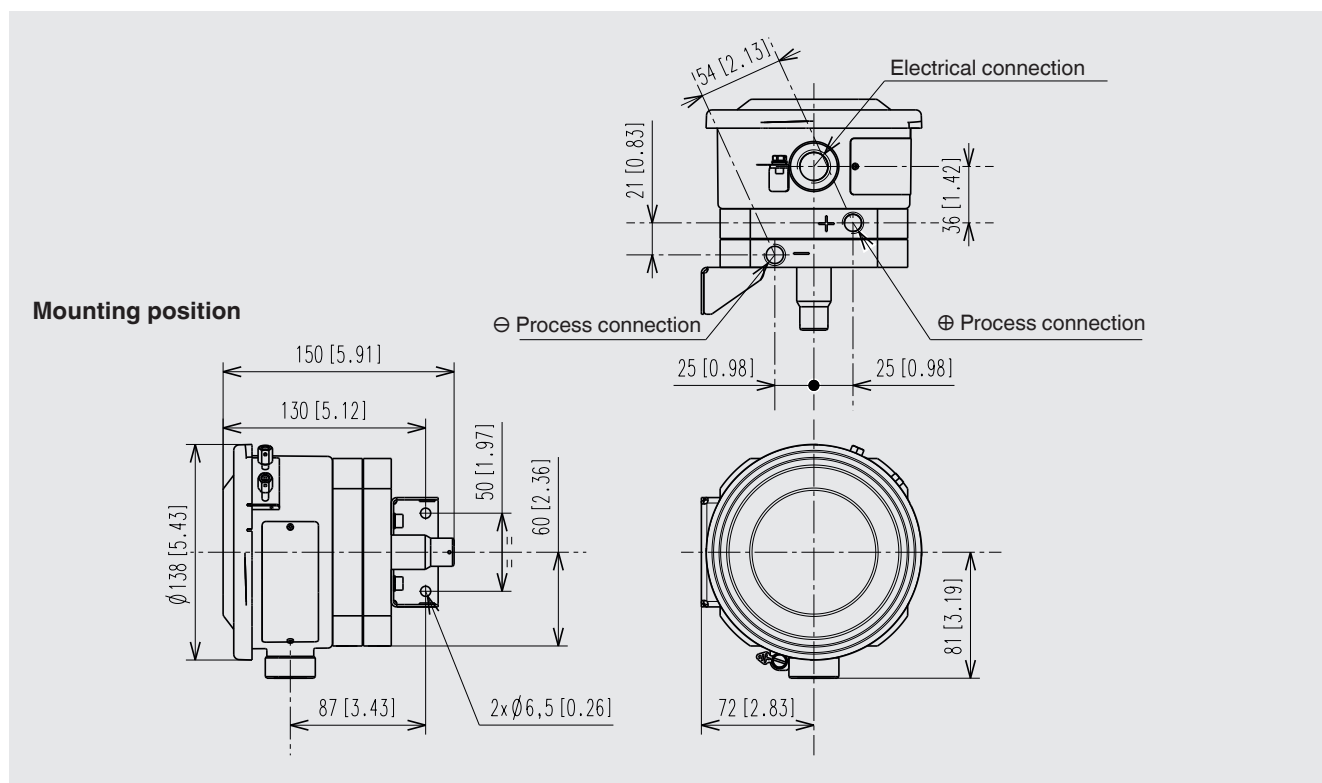
Logo	Beschreibung
	SIL 3-capable (option) Functional safety per IEC 61508 Includes performance level calculation according to ISO 13849-1

Certificates (option)

- 2.2 test report per EN 10204
- 3.1 inspection certificate per EN 10204

Approvals and certificates, see website

Dimensions in mm



Ordering information

Model / Static - One-sided pressure / Setting range / Process connection / Electrical connection / Options

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