

Differential pressure gauge with switch contacts

For the process industry, all-metal media chamber

Models DPGS43.100, DPGS43.160

WIKA data sheet PV 27.05



For further approvals,
see page 13

switchGAUGE

Applications

- Control and regulation of processes
- Monitoring of plants and switching of circuits
- For measuring locations with increased differential overpressure
- Filter and pump monitoring
- Level measurement on closed vessels

Special features

- Differential pressure measuring ranges from 0 ... 16 mbar or 0 ... 10 inH₂O
- High operating pressure (static pressure) and high overload safety up to 40 bar [600 psi]
- Instruments with inductive contacts for use in hazardous areas
- Instruments with switch contact for PLC applications
- QR code on dial links to instrument-specific information

Description

Wherever the process pressure has to be indicated on site and, at the same time, circuits need to be switched, the model DPGS43.1x0 switchGAUGE finds its use.

Switch contacts (electrical alarm contacts) make or break circuits dependent upon the pointer position of the pressure gauge. The switch contacts are adjustable over the full extent of the scale range (see DIN 16085), and are mounted predominantly below the dial, though also partly on top of the dial. Independent of the setting, the instrument pointer (actual value pointer) can move freely across the entire scale range. The set pointer can be adjusted via the window using a removable adjustment key. Switch contacts consisting of several contacts can also be set to a single set point.



Differential pressure gauge model DPGS43.100 with switch contact model 831.2

The differential pressure gauge is manufactured in accordance with DIN 16085 and fulfils all requirements of the relevant standards (EN 837-3) and regulations for the on-site indication of the operating pressure of pressure vessels.

As switch contacts, magnetic snap-action contacts, reed switches, inductive contacts and electronic contacts are available. Inductive contacts can be used in hazardous areas. For triggering programmable logic controllers (PLC), electronic contacts and reed switches can be used.

The QR code on the dial allows instrument-specific information such as the serial number, the order number, certificates and other product data to be retrieved from the internet easily and in the long term.

Specifications

Basic information	
Standard	
EN 837-3	Diaphragm and capsule pressure gauges
DIN 16003	Pressure measuring instruments for differential pressure
DIN 16085	Pressure gauges with electrical limit contact devices
→ For information on the “Selection, installation, handling and operation of pressure gauges”, see technical information IN 00.05.	
Other versions	■ Oil- and grease-free ■ Oil- and grease-free for oxygen ■ For hydrogen ■ Silicone-free ■ With pre-volume deflagration flame arrester ¹⁾ for mounting to zone 0 (EPL Ga); model 910.21; see data sheet AC 91.02
Nominal size (NS)	■ Ø 100 mm [4"] ■ Ø 160 mm [6"]
Window	■ Laminated safety glass ■ Polycarbonate
Connection location	Lower mount Lateral connection locations (right, left, front, rear) on request.
Case	
Design	■ Safety level “S1” per EN 837-1: with blow-out device ■ Safety level “S3” per EN 837-1: with solid baffle wall and blow-out back
Material	■ Stainless steel 1.4301 (304 SS) ■ Stainless steel 1.4571 (316Ti)
Case filling ²⁾	■ Without ■ Silicone oil Instruments with case filling can be vented and resealed for internal pressure equalisation.
Venting of the media chambers ³⁾	
Span ≤ 0.25 bar [100 inH ₂ O]	With venting
Span ≥ 0.4 bar [160 inH ₂ O]	■ Without ■ With venting
Movement	Stainless steel

1) Only for instruments with Ex approval

2) IP65 ingress protection for instruments with case filling

3) The version for customised spans between 0.25 bar [100 inH₂O] and 0.4 bar [160 inH₂O] is determined after application-specific testing.

Measuring element	
Type of measuring element	Diaphragm element
Material ¹⁾	
Span ≤ 0.25 bar [100 inH ₂ O]	Stainless steel 1.4571 (316Ti)
Span ≥ 0.4 bar [160 inH ₂ O]	NiCr alloy (Inconel)

1) The version for customised spans between 0.25 bar [100 inH₂O] and 0.4 bar [160 inH₂O] is determined after application-specific testing.

Accuracy specifications	
Accuracy class	■ 1.6 ■ 1.0 ¹⁾ ■ 2.5
Zero point setting	■ Without ■ External setting
Influence of static pressure	
Span ≤ 0.25 bar [100 inH ₂ O]	±0.3 %/1 bar [14.5 psi]
Span ≥ 0.4 bar [160 inH ₂ O]	±0.04 %/1 bar [14.5 psi]
Temperature error	On deviation from the reference conditions at the measuring system: ≤ ±0.5 % per 10 °C [≤ ±0.5 % per 18 °F] of full scale value
Switch hysteresis	Depending on the type of contact used, see page 6
Reference conditions	
Ambient temperature	+20 °C [+68 °F]

1) Application test required

Scale ranges

mbar		
0 ... 16	0 ... 160	0 ... 1,000
0 ... 25	0 ... 250	0 ... 1,100
0 ... 40	0 ... 300	0 ... 1,200
0 ... 60	0 ... 400	0 ... 1,600
0 ... 100	0 ... 600	0 ... 2,500

bar		
0 ... 0.25	0 ... 2.5	0 ... 14
0 ... 0.4	0 ... 4	0 ... 16
0 ... 0.6	0 ... 6	0 ... 20
0 ... 1	0 ... 7	0 ... 25
0 ... 1.6	0 ... 10	-

kPa		
0 ... 1.6	0 ... 40	0 ... 700
0 ... 2.5	0 ... 60	0 ... 800
0 ... 4	0 ... 100	0 ... 1,000
0 ... 6	0 ... 160	0 ... 1,400
0 ... 10	0 ... 250	0 ... 1,600
0 ... 16	0 ... 300	0 ... 2,500
0 ... 25	0 ... 400	-
0 ... 30	0 ... 600	-

inH ₂ O		
0 ... 10 ¹⁾	0 ... 40	0 ... 200
0 ... 15	0 ... 60	0 ... 250
0 ... 25	0 ... 100	-
0 ... 30	0 ... 150	-

psi		
0 ... 10	0 ... 100	0 ... 250
0 ... 15	0 ... 150	0 ... 300
0 ... 30	0 ... 160	-
0 ... 60	0 ... 200	-

Vacuum and compound scale ranges

mbar		
-16 ... 0 ¹⁾	-600 ... 0	-50 ... +50
-25 ... 0	-1,000 ... 0	-80 ... +80
-40 ... 0	-1,100 ... 0	-125 ... +125
-60 ... 0	-1,200 ... 0	-200 ... +200
-100 ... 0	-8 ... +8	-300 ... +300
-160 ... 0	-10 ... +15	-500 ... +500
-250 ... 0	-20 ... +20	-600 ... +400
-400 ... 0	-30 ... +30	-1,000 ... +600

bar		
-0.6 ... 0	-1 ... +1.5	-1 ... +9
-1 ... 0	-1 ... +3	-1 ... +15
-1 ... +0.6	-1 ... +5	-1 ... +24

1) Scale angle approx. 180°, with all other scale ranges the scale angle, as a general rule, is 270°.

→ Other scale ranges on request

psi	
-15 ... 0 inHg	-30 inHg ... +100
-30 ... 0 inHg	-30 inHg ... +160
-30 inHg ... +15	-30 inHg ... +200
-30 inHg ... +30	-30 inHg ... +300
-30 inHg ... +60	-

kPa		
-60 ... 0	-15 ... +15	-100 ... +500
-100 ... 0	-20 ... +40	-100 ... +700
-2 ... +4	-100 ... +60	-100 ... +900
-4 ... +6	-100 ... +100	-100 ... +1,000
-6 ... +4	-100 ... +150	-100 ... +1,500
-6 ... +10	-100 ... +200	-100 ... +2,400
-10 ... +6	-100 ... +300	-
-10 ... +15	-100 ... +400	-

Further details on: scale ranges

Unit	■ mbar ■ bar ■ psi ■ kPa ■ MPa ■ mmH₂O ■ inH₂O ■ kg/cm²	
	Other units on request	
Max. allowable pressure per Pressure Equipment Directive 2014/68/EU	Corresponds to the upper full scale value. Any permanent operation above the maximum operating pressure is not permissible.	
Overload safety and max. operating pressure (static pressure)	The possibility of selection depends on the span. → See separate table on page 5	
Dial		
Scale layout	■ Single scale ■ Dual scale	
Scale colour	Single scale	Black
	Dual scale	Black/red
Material	Aluminium	
Customer-specific version	■ Without ■ With special scale, e.g. linear pressure or square root incrementation	
	Other scales, e.g. with red mark, circular arcs or circular sectors, on request	
Instrument pointer	Aluminium, black	
Set pointer	→ See type of contact, from page 6	

Overload safety and max. operating pressure (static pressure)	
Span ¹⁾	Overload safety / max. operating pressure (static) Either side max.
16 ... 40 mbar [10 ... 16 inH ₂ O]	■ 2.5 bar [36 psi] / 2.5 bar [36 psi] ■ 2.5 bar [36 psi] / 6 bar [87 psi] ²⁾
60 ... 250 mbar [25 ... 100 inH ₂ O]	■ 2.5 bar [36 psi] / 6 bar [87 psi] ■ 6 bar [87 psi] / 10 bar [145 psi] ²⁾
400 mbar [6 psi]	■ 4 bar [58 psi] / 25 bar [363 psi] ■ 40 bar [600 psi] / 40 bar [600 psi] ²⁾
0.6 bar [10 psi]	■ 6 bar [87 psi] / 25 bar [363 psi] ■ 40 bar [600 psi] / 40 bar [600 psi] ²⁾
1 bar [15 psi]	■ 10 bar [145 psi] / 25 bar [363 psi] ■ 40 bar [600 psi] / 40 bar [600 psi] ²⁾
1.6 bar [30 psi]	■ 16 bar [232 psi] / 25 bar [363 psi] ■ 40 bar [600 psi] / 40 bar [600 psi] ²⁾
2.5 ... 40 bar [60 ... 600 psi]	■ 25 bar [363 psi] / 25 bar [363 psi] ■ 40 bar [600 psi] / 40 bar [600 psi] ²⁾

1) Values for customised spans are determined after application-specific testing.

2) A version with higher values for overload safety / max. operating pressure (static) can be selected.

Process connection		
Standard	EN 837-1 ANSI/B1.20.1	
	→ For valve manifolds for an instrument hook-up, see “Accessories and spare parts”.	
Size		
EN 837-1	2 x G ¼, female thread 2 x G ½ B, male thread	
ANSI/B1.20.1	2 x ¼ NPT, female thread 2 x ½ NPT, male thread	
Restrictor	Without Ø 0.6 mm [0.024"], stainless steel Ø 0.3 mm [0.012"], stainless steel	
Material (wetted)		
Media chambers with process connection	Stainless steel 1.4571 (316Ti)	
Venting of the media chambers, if available	Stainless steel 1.4571 (316Ti)	
Diaphragm element ¹⁾	Span ≤ 0.25 bar [100 inH ₂ O]	Stainless steel 1.4571 (316Ti)
	Span ≥ 0.4 bar [160 inH ₂ O]	NiCr alloy (Inconel)
Bellows	Stainless steel 1.4571 (316Ti)	

1) The version for customised spans between 0.25 bar [100 inH₂O] and 0.4 bar [160 inH₂O] is determined after application-specific testing.

→ Other process connections on request

Output signal	
Type of contact	■ Magnetic snap-action contact, model 821, see page 6 ■ Inductive contact, model 831, see page 8 ■ Electronic contact, model 830 E see page 10 ■ Reed switch, model 851, see page 11
Switch technology	
Magnetic snap-action contact, model 821	■ No control unit and no auxiliary power required ■ Direct switching up to 250 V, 1 A
Inductive contact, model 831	■ Suitable for use in hazardous areas with corresponding control unit (model 904.xx) ■ Long service life due to non-contact switching ■ Low influence on the indication accuracy ■ Fail-safe switching at high switching frequency ■ Insensitive to corrosion ■ Also available in safety version
Electronic contact, model 830 E	■ For direct triggering of a programmable logic controller (PLC) ■ Long service life due to non-contact switching ■ Low influence on the indication accuracy ■ Fail-safe switching at high switching frequency ■ Insensitive to corrosion
Reed switch, model 851	■ No control unit and no auxiliary power required ■ Direct switching up to 250 V, 1 A ■ For direct triggering of a programmable logic controller (PLC) ■ Wear-free, as non-contact
Contact setting	■ Contact(s) adjustable, adjustment key attached to cable socket ■ Contact(s) fixed, without adjustment lock ¹⁾ ■ Adjustment lock sealable (tamper-proof) ■ Adjustment lock sealed (tamper-proof) ¹⁾ ■ Captive adjustment key with the adjustment lock connected

1) Specify switch point(s) when ordering.

Output signal: magnetic snap-action contact, model 821		
Type of contact	Magnetic snap-action contact	
Set pointer		
Single contact, double contact and change-over contact	Plastic, red	
Double contact with separate circuits, double change-over contact, triple contact	Metal, red	
Switch technology	■ No control unit and no auxiliary power required ■ Direct switching up to 250 V, 1 A	
Switch version		
“L”	Design of the contact coil: light-weight	
“S”	Design of the contact coil: heavy	
Number of switch contacts depending on switch version		
Span ≤ 1.0 bar	Switch version “L”	Max. 1 switch contact
Span > 1.0 bar ... ≤ 1.6 bar	Switch version “S”	Max. 1 switch contact
	Switch version “L”	Max. 2 switch contacts
NS 100, span > 1.6 ... < 4 bar	Switch version “L” or “S”	Max. 2 switch contacts
NS 100, span ≥ 4 bar	Switch version “L” or “S”	Max. 3 switch contacts
NS 160, span > 1.6 ... < 2.5 bar	Switch version “L” or “S”	Max. 2 switch contacts
NS 160, span ≥ 2.5 bar	Switch version “L” or “S”	Max. 3 switch contacts

Output signal: magnetic snap-action contact, model 821

Switching function	Separate circuits with ≥ 2 switches
	The switching function of each switch is indicated by index 1, 2 or 3 The circuits are separated by a "full stop". Example: Model 821.1.1 is a double contact, 2 x normally open with separate circuits.
Model 821.1	Normally open (clockwise pointer motion)
Model 821.2	Normally closed (clockwise pointer motion)
Model 821.3	Change-over; one contact breaks and one contact makes simultaneously when pointer reaches set point
Switch point setting	Set pointers of the contact pressure gauges are freely adjustable over the entire scale range
Setting range (recommended)	25 ... 75 % of span ¹⁾
Distance between switch points	Recommended minimum distance between 2 contacts: 20 % of span
Switch hysteresis	2 ... 5 % (typical)
Switching current	
Switch version "L"	0.02 ... 0.3 A
Switch version "S"	0.02 ... 0.6 A
Switch-on and switch-off current	
Switch version "L"	≤ 0.5 A
Switch version "S"	≤ 1.0 A
Switching voltage	AC/DC 24 ... 250 V
Switching power	
Instruments without filling	≤ 30 W, ≤ 50 VA
Instruments with filling	≤ 20 W, ≤ 20 VA
Contact material	Silver-nickel, gold-plated

1) Special setting ranges on request

Recommended contact load

Switching voltage	Instruments without filling			Instruments with filling		
	Resistive load		Inductive load	Resistive load		Inductive load
	Direct current	Alternating current	$\cos \varphi > 0.7$	Direct current	Alternating current	$\cos \varphi > 0.7$
DC 220 V / AC 230 V	100 mA	120 mA	65 mA	65 mA	90 mA	40 mA
DC 110 V / AC 110 V	200 mA	240 mA	130 mA	130 mA	180 mA	85 mA
DC 48 V / AC 48 V	300 mA	450 mA	200 mA	190 mA	330 mA	130 mA
DC 24 V / AC 24 V	400 mA	600 mA	250 mA	250 mA	450 mA	150 mA

→ For further information on switch contacts, see technical information IN 00.48

Output signal: Inductive contact, model 831	
Type of contact	Inductive contact
Set pointer	Metal, red
Switch technology	■ Suitable for use in hazardous areas with corresponding control unit (model 904.xx) ■ Long service life due to non-contact switching ■ Low influence on the indication accuracy ■ Fail-safe switching at high switching frequency ■ Insensitive to corrosion ■ Also available in safety version
Number of switch contacts	Max. 3 switch contacts
Switching function	Contact versions: ■ 831-N ■ 831-SN, safety version ²⁾ ■ 831-S1N, safety version ²⁾, inverted signal The switching function of each switch is indicated by index 1 or 2
Model 831.1	Normally open (clockwise pointer motion)
Model 831.2	Normally closed (clockwise pointer motion)
Switch point setting	Set pointers of the contact pressure gauges are freely adjustable over the entire scale range
Setting range (recommended)	10 ... 90 % of span ³⁾
Distance between switch points	Up to 2 contacts can be set to an identical set point. For a version with 3 contacts this is not possible. The left (1st) or right (3rd) contact may not be set to the same set point as the other 2 contacts. The required displacement is approx. 30°, optionally to the right or to the left.
Switching current	Depending on the control unit used, model 904, see data sheet AC 08.04.
Switching voltage	Depending on the control unit used, model 904, see data sheet AC 08.04.
Switching power	Depending on the control unit used, model 904, see data sheet AC 08.04.
Permissible temperature ranges in hazardous areas	
T6	-20 ... +60 °C
T5 ... T1	-20 ... +70 °C
T135°C	-20 ... +70 °C
Safety-related characteristic values (Ex) ⁴⁾	
Max. input voltage U_i	16 V
Max. input current I_i	25 mA
Max. input power P_i	64 mW
Effective internal capacitance C_i	30 nF
Effective internal inductance L_i	100 µH

1) For scale range 0 ... 25 mbar, accuracy class 2.5 applies

2) Only operate with a corresponding isolating amplifier (model 904.3x)

3) Special setting ranges on request

4) These values refer to the 831-N inductive contact with PT2 power type; for other contact versions and switching amplifiers, see the operating instructions

Associated control units

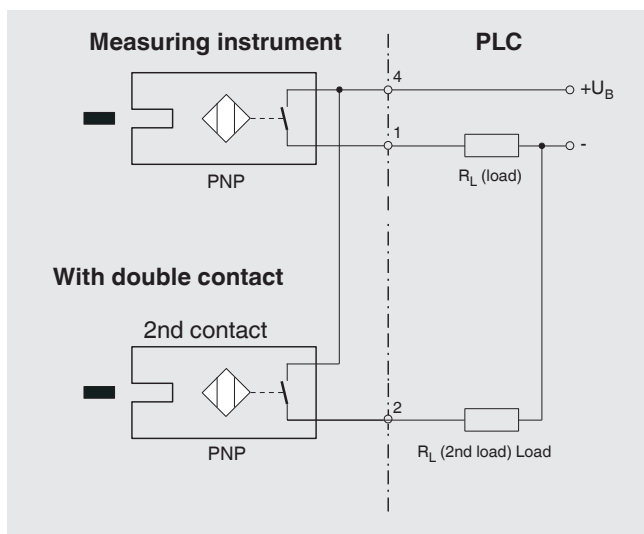
Model	Version	Ex version
904.28 KFU8-SR-Ex1.W	1 contact	Yes
904.29 KFU8-SR-Ex2.W	2 contacts	Yes
904.33 KFD2-SH-Ex1	1 contact	Yes - Safety version
904.25 MSR 010-I	1 contact	No
904.26 MSR 020-I	2 contacts	No
904.27 MSR 011-I	Two-point control	No

→ For further information on switch contacts, see technical information IN 00.48

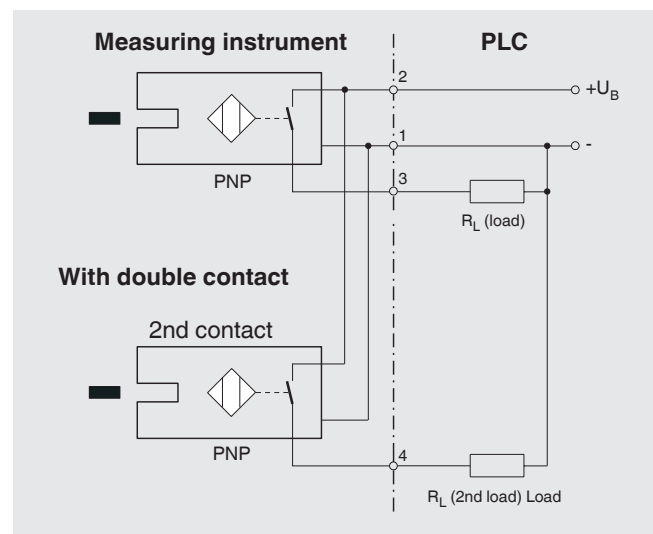
Output signal: electronic contact, model 830 E	
Type of contact	Electronic contact (PNP transistor)
Set pointer	Metal, red
Switch technology	■ For direct triggering of a programmable logic controller (PLC) ■ Long service life due to non-contact switching ■ Low influence on the indication accuracy ■ Fail-safe switching at high switching frequency ■ Insensitive to corrosion
Number of switch contacts	Max. 2 switch contacts
Switching function	Contact versions: ■ 2-wire system ■ 3-wire system The switching function of each switch is indicated by index 1 or 2
Model 830 E.1	Normally open (clockwise pointer motion)
Model 830 E.2	Normally closed (clockwise pointer motion)
Setting range (recommended)	10 ... 90 % of span ¹⁾
Distance between switch points	Up to 2 contacts can be set to an identical set point.
Switching current	≤ 100 mA
Switching voltage	DC 10 ... 30 V

1) Special setting ranges on request

2-wire system



3-wire system



→ For further information on switch contacts, see technical information IN 00.48

Output signal: Reed switch, model 851	
Type of contact ^{1) 2)}	Bistable reed switch
Set pointer	Plastic, red
Switch technology	■ No control unit and no auxiliary power required ■ Direct switching up to 250 V, 1 A ■ For direct triggering of a programmable logic controller (PLC) ■ Wear-free, as non-contact
Number of switch contacts	Max. 2 switch contacts
Switching function	Separate circuits with 2 switches The switching function is indicated by index 3
Model 851.3	Change-over; one contact breaks and one contact makes simultaneously when pointer reaches set point
Switch point setting	Set pointers of the contact pressure gauges are freely adjustable over the entire scale range
Setting range (recommended)	10 ... 90 % of span
Distance between switch points	When using two contacts, these cannot be set to the same point. Depending on the switching function, a minimum clearance of 15 ... 30° is required.
Switch hysteresis	3 ... 5 %
Switching current	≤ AC/DC 1 A
Switching voltage	≤ AC/DC 250 V
Switching power	≤ 60 W, 60 VA
Contact material	Rhodium
Transport current	AC/DC 2 A
Inductive load cos φ	1
Contact resistance (static)	100 mΩ
Insulation resistance	109 Ω
Breakdown voltage	DC 1,000 V
Switching time incl. contact bounce	4.5 ms

1) Available with single contact from span ≥ 100 mbar [≥ 40 inH₂O]; available with double contact from span ≥ 400 mbar [≥ 160 inH₂O]

2) For NS 160 [6"], the case conforms to the safety level „S1“ in accordance with EN 837

→ For further information on switch contacts, see technical information IN 00.48

Electrical connection	
Connection type	■ Cable socket, black Per VDE 0110 insulation group C/250 V PG gland ■ Connector (instead of cable socket)
Wire cross-section	6 screw terminals + PE for 2.5 mm ²
Cable diameter	6 ... 13 mm
Pin assignment	The pin assignment is given on the product label of the instrument. Connection terminals and grounding terminal are appropriately marked.
Material	PA 6 (polyamide)

Operating conditions	
Medium temperature range	
Instruments without filling	-20 ... +200 °C [-4 ... +392 °F]
Instruments with silicone oil filling	-20 ... +100 °C [-4 ... +212 °F]
Ambient temperature range	-20 ... +60 °C [-4 ... 140 °F]
Storage temperature range	-20 ... +60 °C [-4 ... 140 °F]
Pressure limitation	
Steady	Full scale value
Fluctuating	0.9 x full scale value
Ingress protection per IEC/EN 60529	■ IP54 ■ IP65 ¹⁾ ■ IP66 ²⁾ (ingress protection of the case)

1) IP65 ingress protection for instruments with case filling
2) Hermetically sealed case; see data sheet IN 00.18

For hazardous areas, the permissible temperature of the contact model 831 will exclusively apply (see page 8). These must not be exceeded at the instrument either (for details, see operating instructions). If necessary, measures for cooling (e.g. syphon, instrumentation valve, etc.) have to be taken.

Optional approvals

Logo	Description	Region
 	EU declaration of conformity	European Union
	ATEX directive ¹⁾ Hazardous areas Gas II 2G Ex ia IIC T6/T5/T4 Gb Dust II 2D Ex ia IIIB T135°C Db	
	IECEX ¹⁾ Hazardous areas Gas 2G Ex ia IIC T6/T5/T4 Gb Dust 2D Ex ia IIIB T135°C Db	International
	EAC Hazardous areas ¹⁾	Eurasian Economic Community
	Ex Ukraine Hazardous areas ¹⁾	Ukraine
	NEPSI Hazardous areas ¹⁾	China
	KCs Hazardous areas	Korea
	PAC Uzbekistan Metrology, measurement technology	Uzbekistan
-	CRN Safety (e.g. electr. safety, overpressure, ...)	Canada

¹⁾ Only for instruments with inductive contact model 831

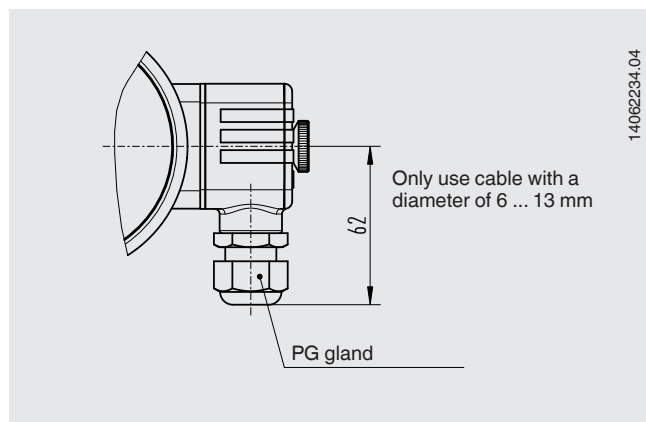
Certificates (option)

Certificates	
Certificates	■ 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, indication accuracy) ■ 3.1 inspection certificate per EN 10204 (e.g. indication accuracy)
Recommended calibration interval	1 year (dependent on conditions of use)

→ For approvals and certificates, see website

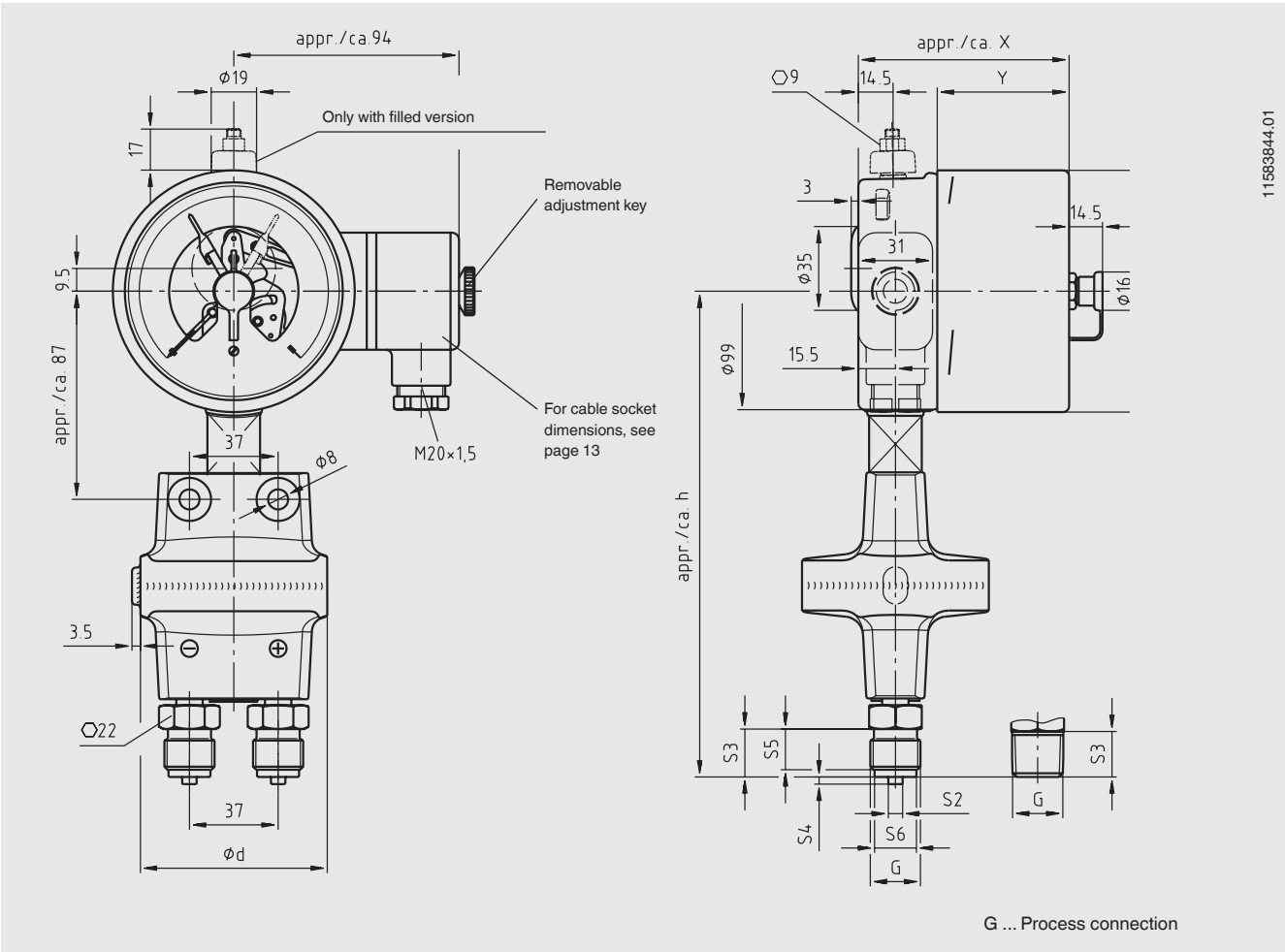
Dimensions in mm

Cable socket



Dimensions in mm

switchGAUGE model DPGS43.100 with switch contact model 821, 831 or 830 E

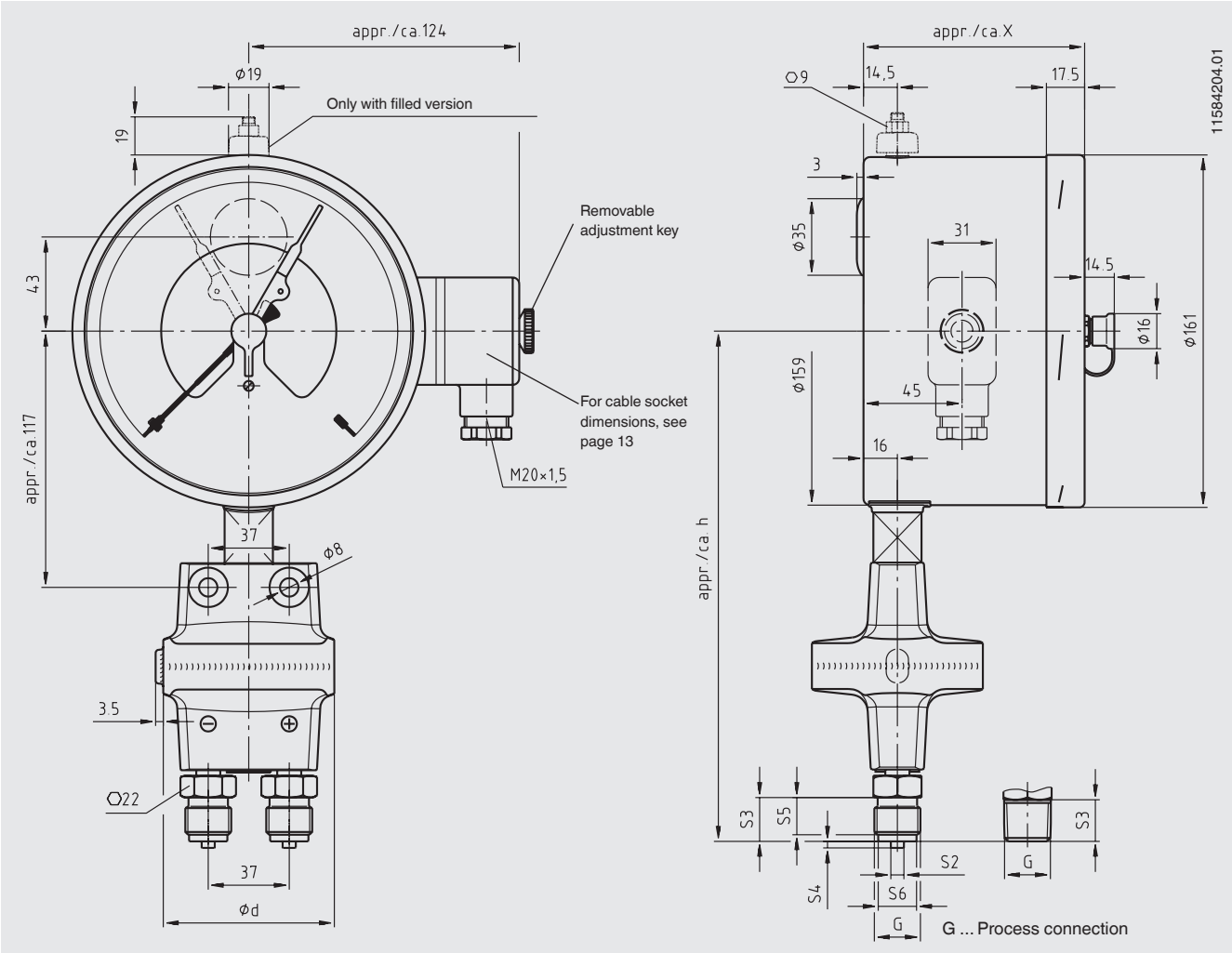


Type of contact	Span ¹⁾	Dimensions in mm		
		Ø d	X	Y
Single or double contact	≤ 0.25 bar [100 inH ₂ O]	140	88	55
	≥ 0.4 bar [160 inH ₂ O]	78	88	55
Double (change-over) contact	≤ 0.25 bar [100 inH ₂ O]	140	113	80
	≥ 0.4 bar [160 inH ₂ O]	78	113	80
Triple contact	≤ 0.25 bar [100 inH ₂ O]	140	96	63
	≥ 0.4 bar [160 inH ₂ O]	78	96	63

1) The version for customised spans between 0.25 bar [100 inH₂O] and 0.4 bar [160 inH₂O] is determined after application-specific testing.

Process connection	Dimensions in mm					
	h ±1	S2	S3	S4	S5	S6
G ½ B	203	6	20	3	17	17.5
½ NPT	201	-	19	-	-	-

switchGAUGE model DPGS43.160 with switch contact model 821, 831 or 830 E

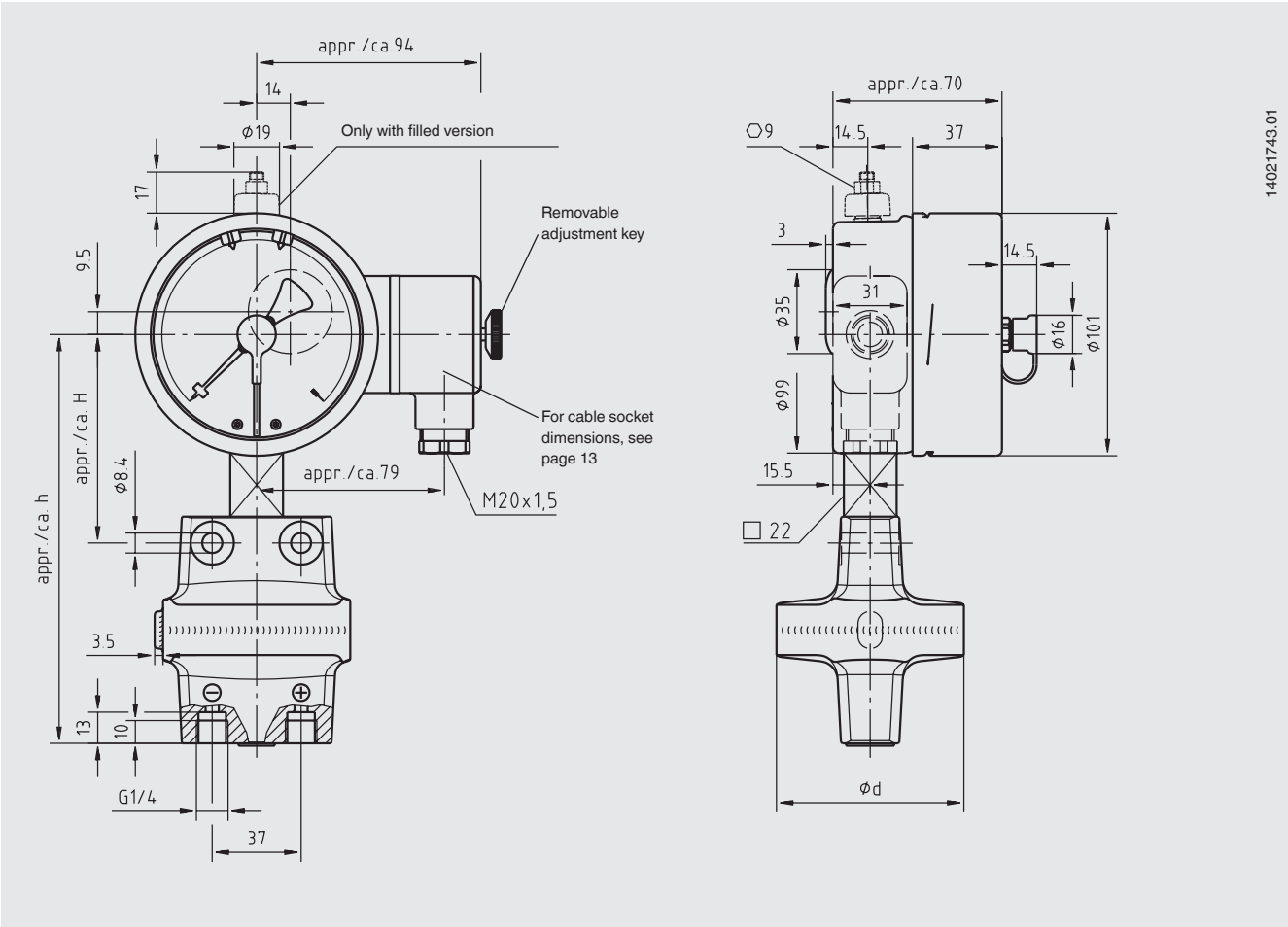


Type of contact	Span ¹⁾	Dimensions in mm	
		Ø d	X
Single or double contact	≤ 0.25 bar [100 inH ₂ O]	140	102
	≥ 0.4 bar [160 inH ₂ O]	78	102
Double (change-over) contact	≤ 0.25 bar [100 inH ₂ O]	140	116
	≥ 0.4 bar [160 inH ₂ O]	78	116
Triple contact	≤ 0.25 bar [100 inH ₂ O]	140	102
	≥ 0.4 bar [160 inH ₂ O]	78	102

1) The version for customised spans between 0.25 bar [100 inH₂O] and 0.4 bar [160 inH₂O] is determined after application-specific testing.

Process connection	Dimensions in mm					
	h ±1	S2	S3	S4	S5	S6
G ½ B	233	6	20	3	17	17.5
½ NPT	231	-	19	-	-	-

switchGAUGE model DPGS43.100 with switch contact model 851.3 or 851.33



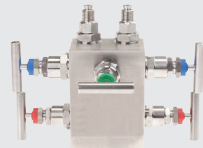
Scale range ¹⁾	Dimensions in mm		
	ϕd	$h \pm 1$	$H \pm 1$
$\leq 0.25 \text{ bar [100 inH}_2\text{O]}$	140	161	90
$\geq 0.4 \text{ bar [160 inH}_2\text{O]}$	78	171	87

1) The version for customised spans between 0.25 bar [100 inH₂O] and 0.4 bar [160 inH₂O] is determined after application-specific testing.

Scale range ¹⁾	Dimensions in mm		
	Ø d	h ±1	H ±1
≤ 0.25 bar [100 inH ₂ O]	140	201	117
≥ 0.4 bar [160 inH ₂ O]	78	190	120

WIKA data sheet PV 27.05 · 07/2026

Accessories and spare parts

Model	Description	Order number
 910.17	Seals → See data sheet AC 09.08	On request
 IV304	3-valve manifold Process connection / Instrument connection: 2 x G 1/2, male thread / 2 x G 1/4, male nut	37105018
	3-valve manifold Process connection / Instrument connection: 2 x 1/2 NPT, male thread / 2 x G 1/4, male nut	48752900
 IV504	5-valve manifold Process connection / Instrument connection / Vent connection: 2 x G 1/2, male thread / 2 x G 1/4, male nut / 2 x G 1/8, female thread	2020389
	5-valve manifold Process connection / Instrument connection / Vent connection: 2 x 1/2 NPT, male thread / 2 x G 1/4, male nut / 2 x G 1/8, female thread	81640336
	Other 3- or 5-valve manifolds for differential pressure measuring instruments → See data sheet AC 09.23	On request
-	Instrument mounting bracket for wall or pipe mounting Steel, silver painted	1282999
	Instrument mounting bracket for wall or pipe mounting Stainless steel	1473700

Ordering information

Model / Nominal size / Type of contact / Contact version / Scale range / Scale version (linear pressure or square root incrementation) / Max. operating pressure (static pressure) / Process connection / Connection location / Options

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