

Selection and application

These accessories upgrade the devices of the Media series and customize them to the plant depending on the specific application. The following pages contain exact descriptions of all accessories with order numbers.

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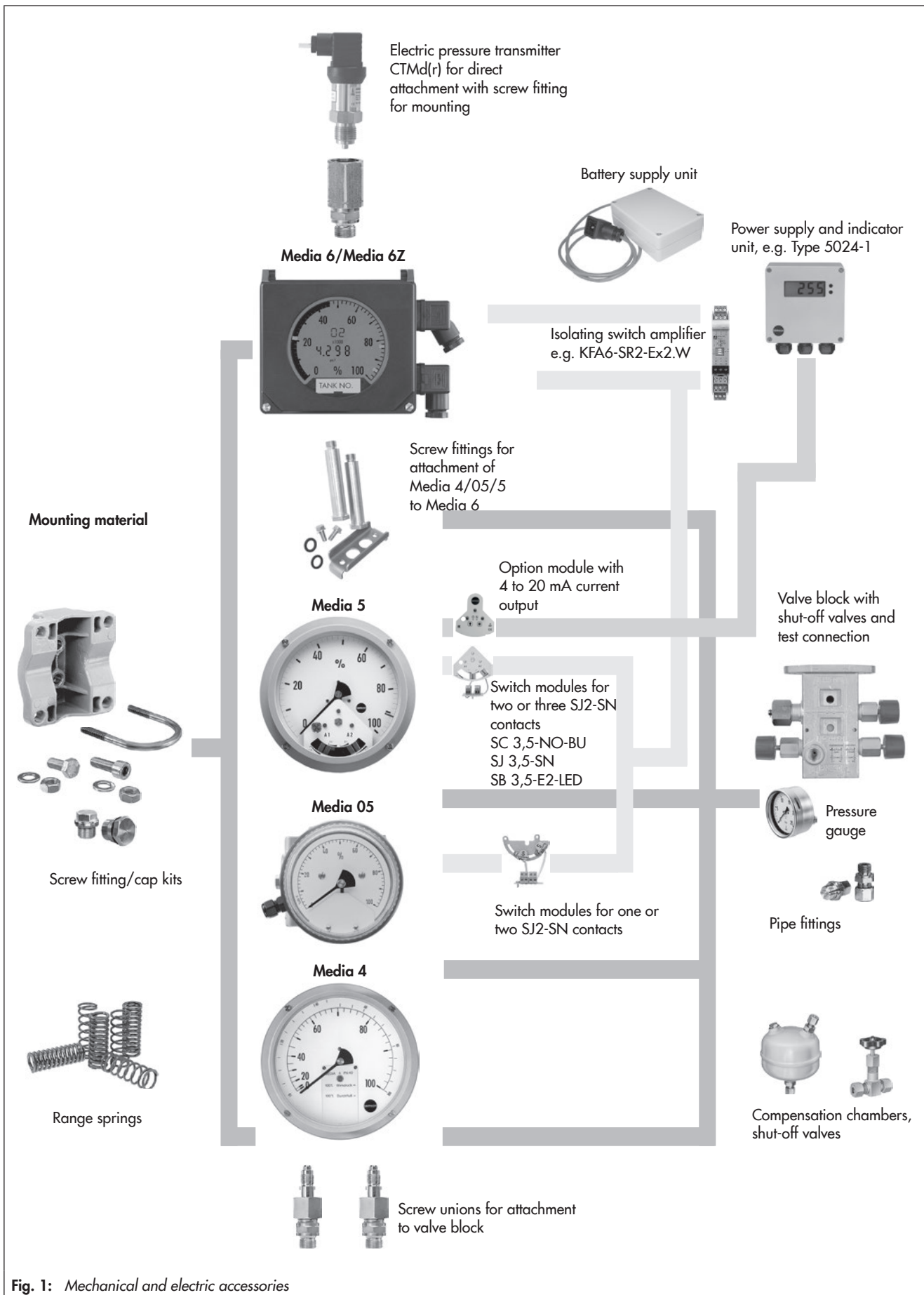


Fig. 1: Mechanical and electric accessories

1 Valve block with shut-off valves and test connection

For direct attachment to devices of the Media 05/5 and Media 6 Series · Screw unions for devices of the Media 4 Series · Shut-off valves for (+/-) process lines and pressure balancing · Lead-sealing holes for pressure balancing and shut-off valves · Pressure gauge connections G 1/2 and G 1/4 for operating pressure gauge NG 100 and NG 63 · Process connection G 3/8 · Locking plug for test connection according to DIN 16287, version C made of CrNi steel · PN 50

Table 1: Technical data and materials · Order numbers

Possible fields of application ¹⁾	Material			Approval for oxygen ³⁾	Minimum temperature (material)	Maximum temperature with Media device	Order no.	
	Housing	Spindle	O-rings				Media 05/5/6	Media 04/4/4K/5014
Cryogenics (free of oil and grease for oxygen), DIN EN 12300-O ₂	Brass	Brass	Silicone	Yes: -40 to +60 °C	-40 °C	+80 °C	1400-7077	1400-7079
Cryogenics (free of oil and grease for oxygen), DIN EN 12300-O ₂	CrNi steel	CrNi steel	Silicone	Yes: -40 to +60 °C	-40 °C	+80 °C	1400-7078	1400-7080
Tobacco industry/compatible with paint	Brass	Brass	NBR	No	-20 °C	+80 °C	1400-7726	- ²⁾
Food industry ⁴⁾	CrNi steel	CrNi steel	Silicone	No	-25 °C	+80 °C	1400-7397	- ²⁾
Flammable gases	Brass	Brass	FPM	No	0 °C	+80 °C	1400-7794	- ²⁾
Flammable gases	CrNi steel	CrNi steel	FPM	No	0 °C	+80 °C	1400-9184	- ²⁾
Standard/cryogenics/flammable gases	Brass	Brass	NBR	No	-30 °C	+80 °C	1400-7160	- ²⁾
Standard/cryogenics/flammable gases	CrNi steel	CrNi steel	NBR	No	-30 °C	+80 °C	1400-7161	- ²⁾
Flammable liquids and refrigerants	Brass	Brass	EPDM	No	-30 °C	+80 °C	1400-7795	- ²⁾

¹⁾ Refer to spec. sheet 1010-4301 for more details on these versions and their requirements

²⁾ Use of Media 05/5/6: valve block together with screw fitting 1400-7478 or 1400-7479, see Table 2

³⁾ When the valve block is used for gaseous oxygen as the process medium, the following limits apply: max. temperature +60 °C and max. oxygen pressure 30 bar

⁴⁾ Not certified for FDA compliance

Table 2: Screw fittings, locking plugs, etc. · Free of oil and grease for oxygen according to DIN EN 12300-O₂

Screw fittings, locking plugs, etc.	Order no.
Screw fitting to combine valve block and Media 4, brass	1400-7478
Screw fitting to combine valve block and Media 4, stainless steel	1400-7479
Locking plug G 1/2 LH for valve block pressure gauge connection, brass	1400-7873
Locking plug G 1/2 LH for valve block pressure gauge connection, stainless steel	1400-7874
Adapter for Media valve block test connection, 8 mm screw fitting, stainless steel	1400-9564
M20x1.5 locking plug for valve block test connection, stainless steel	1400-9745
Two 18x2.5 NBR O-rings for dp-cell connection to valve block	1400-9477
One 13x1.5 NBR O-ring for G 1/2 pressure gauge connection	1400-9562
One valve block knob (1400-7077 and higher, index 7)	0049-0019

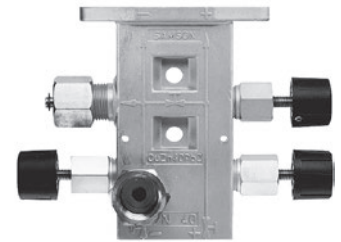


Fig. 2: Valve block for Media 05/5/6

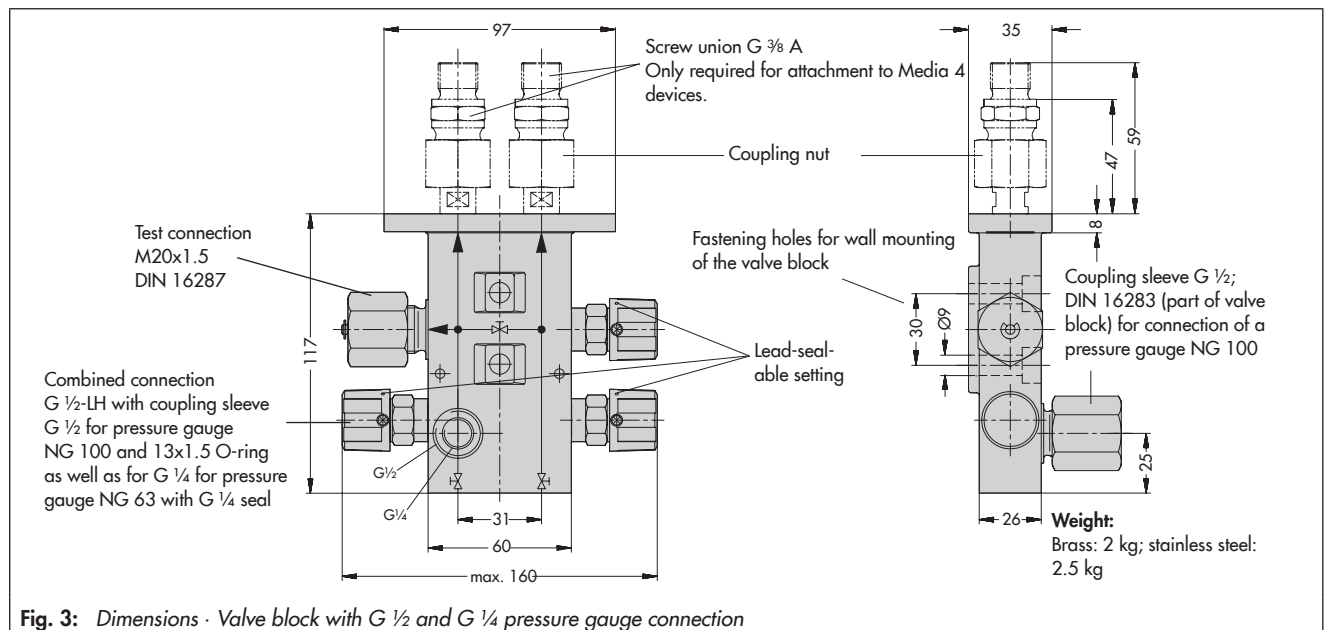


Fig. 3: Dimensions · Valve block with G 1/2 and G 1/4 pressure gauge connection

2 Pressure gauges for valve block

Pressure gauges NG 63 and NG 100

Table 3: Technical data and materials

Versions	
Safety class	S3 (EN 837-1) Safety pressure gauge for oxygen with solid baffle wall, blowout rear panel, and red pointer
Cleaning	Free of oil and grease, for oxygen according to DIN EN 12300-O ₂
Pressure ranges	0 to 2.5 through 0 to 60 bar
Operating temperature	-40 to +60 °C
Degree of protection according to DIN EN 65029	IP 54
Connection	
NG 100	G ½ B (rear)
NG 63	G ¼ B (rear)
Materials	
Housing	CrNi steel
Wetted parts	CrNi steel
Window	Laminated safety glass



Pressure gauge NG 100

i Note

Observe the selection criteria for pressure gauges (concerning safety) according to EN 837-2 (see also ► AB 09).

Table 4: Order numbers for pressure gauges NG 63 and NG 100

Nominal pressure	PN 2.5	PN 4	PN 6	PN 10	PN 16	PN 25	PN 40	PN 60
Pressure gauge NG 63, EN 837-1, S3	8520-2035	8520-2036	8520-2037	8520-2038	8520-2039	8520-2040	8520-2041	–
Pressure gauge NG 100, EN 837-1, S3	8520-2042	8520-1320	8520-1321	8520-1322	8520-1323	8520-1324	8520-1325	8520-2043

- Optional versions (on request)
- Pressure gauge NG 100 with limit contacts on request

Dimensions

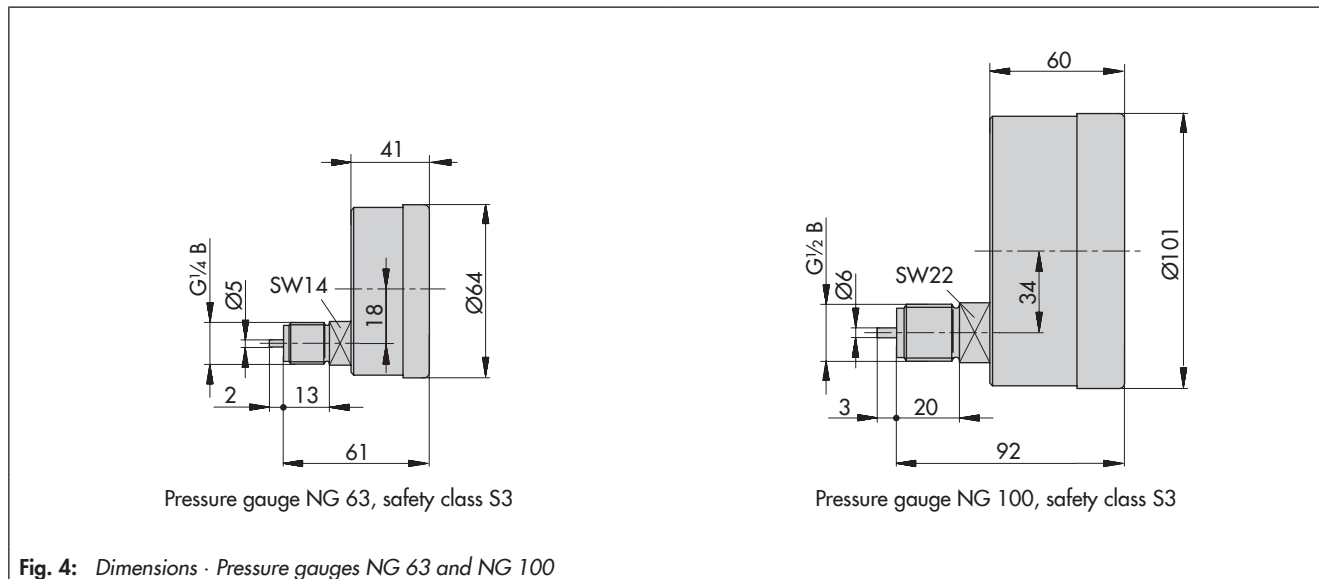


Fig. 4: Dimensions · Pressure gauges NG 63 and NG 100

3 Pipe fittings · Screw fitting/cap kits

Pipe fittings with restriction · To dampen vibrations of the process medium in the measuring line with integrated restriction (especially for gas flow measurement) · **Compression-type fittings** G 3/8 · To connect the differential pressure lines with outside pipe diameters 6, 8, 10 and 12 mm · **Screw plugs** G 3/8 · To seal the dp-cell · **Vent plugs** G 3/8 · To vent the dp-cell · **Additional screw fittings** · Screw fittings for attachment of Media 4/05/5 to Media 6 · Special screw fittings

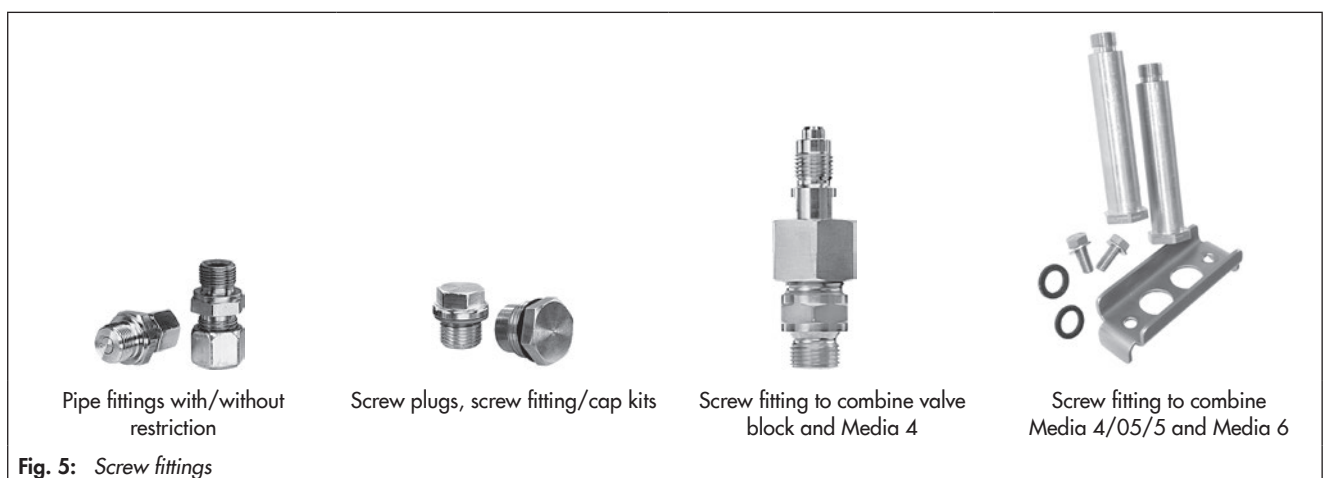
Table 5: Screw fittings · Order numbers

Pipe fittings, vent plugs, screw plugs, etc.	Order no.	
	Standard	Free of oil and grease for oxygen
G 3/8 compression-type fitting for 12 mm pipe outside diameter, steel	1400-5842	-
G 3/8 compression-type fitting for 12 mm pipe outside diameter, stainless steel	1400-5844	1400-5845
G 3/8 compression-type fitting for 10 mm pipe outside diameter, steel	1400-5846	-
G 3/8 compression-type fitting for 8 mm pipe outside diameter, steel	1400-5860	-
Brass vent plug including copper flat gasket	1400-5654	1400-5658
Brass screw plug including copper flat gasket	1400-5655	1400-5659
Four copper flat gaskets	1400-5660	1400-5661
Two brass G 3/8 screw plugs · Two NBR O-rings	1400-7643	1400-7644
Two 15.6x1.78 O-rings for screw plugs, NBR	1400-9563	-
Two stainless steel G 3/8 screw plugs	-	1400-7872
Screw fitting for attachment of Media 4/05/5 to Media 6, brass	-	1400-7748
Screw fitting for attachment of Media 4/05/5 to Media 6, stainless steel	-	1400-7762
Two screw fittings G 1/2 to G 3/8 CuZn, including O-rings (WIKA conversion kit)	-	1400-7749
Special screw fitting in stainless steel, free of oil and grease for oxygen, with restriction made of brass (CW617N), restriction bore: Ø0.5 mm		
G 3/8 straight male connector, CrNi steel	For pipe Ø in mm	Order no.
Ermeto	6	1400-9108
Ermeto	8	1400-9109
Swagelok	8	1400-9110
Ermeto	10	1400-9111
Ermeto 2553	12	1400-9112

Screw fitting/cap kits for attachment to dp-cell and valve block · Free of oil and grease for oxygen · Additional kits on request

Table 6: Screw fitting/cap kits · Order numbers

Attachment to dp-cell	Attachment to valve block	Order no.
Two brass screw plugs · Two NBR O-rings	Two 8 mm stainless steel screw fittings	1400-8823
One brass screw plug · One NBR O-ring One 8 mm stainless steel screw fitting (high-pressure connection)	Two 10 mm stainless steel screw fittings	1400-8824



4 Compensation chambers · Shut-off valves

Compensation chambers · To build a liquid column above the measuring unit (compulsory for steam measurement) · Can also be used as separation chamber for gas measurement by changing the arrangement of screw fittings

Shut-off valves · High-pressure valves to shut off the differential pressure line downstream of the point of measurement · Attachment using a 12 mm compression-type fitting

Table 7: Technical data and materials

Shut-off valves · Compensation chambers	Shut-off valves		Compensation chambers ¹⁾					
	Type A	Type B	Type A			Type 3994-9002		
Max. perm. operating gauge pressure	400 bar		40 bar	35 bar	20 bar	113 bar	105 bar	93 bar
Max. permissible temperature ²⁾	120 °C		120 °C	250 °C	400 °C	120 °C	250 °C	400 °C
Weight	0.4 kg	0.5 kg	0.9 kg			1.25 kg		
Materials · Material numbers according to DIN EN								
Housing	C22	1.4571	1.0037 (St 37-2)			1.4571		
Spindle	1.4571		-			-		

¹⁾ Can also be used as separation chamber for gas measurement by changing the arrangement of screw fittings

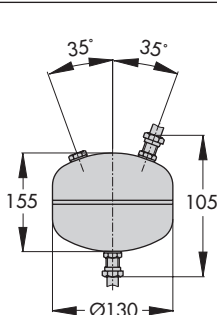
²⁾ Max. permissible temperature according to DIN EN 837-1; shut-off valves and pressure gauges must be protected against a temperature increase caused by hot process media through measuring lines or siphons of appropriate length

Table 8: Order numbers

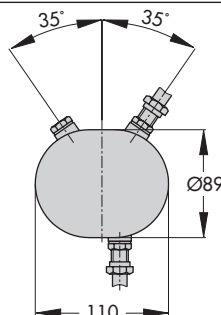
Type	Connection	Order no.
Compensation chamber, Type A	G 3/8 compression-type fitting for 12 mm pipe	1080-0261
Compensation chamber, Type 3994-9002		3994-9002
High-pressure shut-off valve, Type A		1000017
High-pressure shut-off valve, Type B		1000016



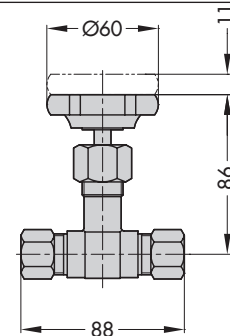
Fig. 6: High-pressure valve and compensation chamber



Compensation chamber, Type A



Compensation chamber, Type 3994-9002



High-pressure valve, Type A/B

Fig. 7: Dimensions · compensation chambers and high-pressure valve

5 Mounting material for wall and pipe mounting

Mounting material for all devices of the Media series

Pipe clips for 2" pipe mounting or holding brackets for wall mounting

Table 9: Order numbers

Mounting material	Order no.
Mounting material for 2" pipe mounting	1400-5656
Mounting material for wall mounting	1400-5657

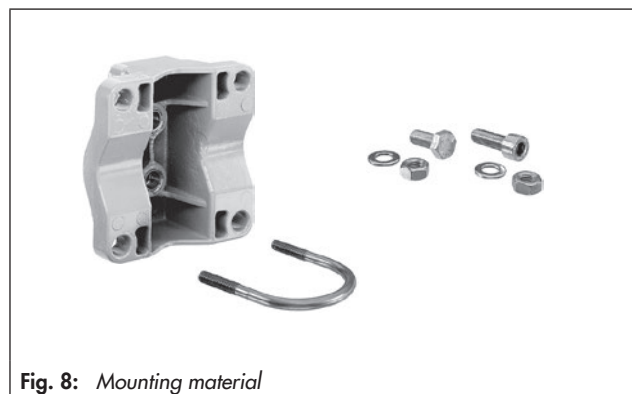




Fig. 8: Mounting material

6 Limit contacts · Analyzing instruments for limit contacts

Table 10: Retrofit contact module for Media 5/05 · Order numbers

Retrofit contact module	Function	Order no.	
Media 5			
Two inductive limit contacts, SC3,5-NO-BU, acc. to ATEX	Two universal adjustable contacts	1400-8839	
Three inductive limit contacts, SC3,5-NO-BU, acc. to ATEX	Two min. and one max. contacts	1400-8840	
Three inductive limit contacts, SJ3,5-SN, acc. to ATEX, SIL 3	Two universal adjustable contacts	1400-9999	
Two inductive limit contacts, SB3,5-E2-LED, without explosion protection ¹⁾	Two universal adjustable contacts	1400-7808	
Media 05			
One inductive limit contact, SJ2-SN, acc. to ATEX	One min. contact	1400-9241	
Two inductive limit contacts, SJ2-SN, acc. to ATEX	Two min. contacts	1400-9242	
Two inductive limit contacts, SJ2-SN, acc. to ATEX	One min. and one max. contacts	1400-9243	

¹⁾ Three-wire version, 10 to 30 V_{DC}, without isolating switch amplifier, controllable

Function

Min. contact: metal tag moves in when the reading decreases · **Max. contact:** metal tag moves in when the reading increases · **Metal tag inside pick-up field:** OFF switching signal (0 signal of the proximity switch) · Contact open or output effectively non-conducting, high resistance (damped), power consumption ≤ 1 mA.

Metal tag outside pick-up field: ON switching signal (L signal of the proximity switch) · Contact closed or output effectively conducting, low resistance (undamped), power consumption ≥ 3 mA.

Analyzing instruments for limit contacts

System K isolating switch amplifier: the isolating switch amplifiers transfer the digital signals of the limit switch (alarm contacts).

Table 11: Technical data


Type	KFD2-SR2-Ex...	KFA5-SR2-Ex...	KFA6-SR2-Ex...	
Power supply	20 to 30 V _{DC}	103.5 to 126 V _{AC}	207 to 253 V _{AC}	
Nominal data according to DIN 19234 or NAMUR				
Open-circuit voltage/short-circuit current	Approx. 8 V _{DC} /approx. 8 mA			
Switching point/switching accuracy	1.2 to 2.1 mA/approx. 0.2 mA			
Input pulse length/input pulse interval	≥20 ms/≥20 ms			
Line monitor	Rupture I ≤0.1 mA			
Maximum value according to certificate of conformity PTB 00 ATEX 2081				
Voltage U ₀	10.5 V	10.6 V		
Current I ₀	13 mA	19 mA		
Power P ₀	34 mW	51 mW		

Fig. 9: System K isolating switch amplifier

Table 12: Order numbers

Type	Version	Order no.
KFA6-SR2-Ex1.W	1-channel	8812-0100
KFA6-SR2-Ex2.W	2-channel	8812-0103
KFA5-SR2-Ex1.W	1-channel	8812-0099
KFA5-SR2-Ex2.W	2-channel	8812-0102
KFD2-SR2-Ex1.W	1-channel	8812-0098
KFD2-SR2-Ex2.W	2-channel	8812-0101
In terminal housing	On request	
In alarm system	On request	

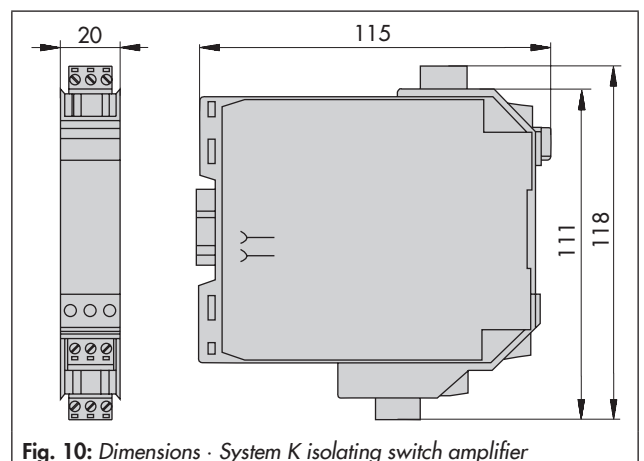


Fig. 10: Dimensions · System K isolating switch amplifier

7 Range springs

Table 13: Range springs for Media 05/5 · Free of oil and grease for oxygen

dp-cell	Diaphragm	Span	Order no.
1	Diaphragm 0.4/60	0 to 60 mbar	1400-7822
		0 to 100 mbar	1400-7823
		0 to 160 mbar	1400-7824
		0 to 250 mbar	1400-7825
		0 to 400 mbar	1400-7826
1	Diaphragm 0.4/60	0 to 600 mbar	1400-7827
		0 to 1000 mbar	1400-7828
		0 to 1600 mbar	1400-7829
2	Diaphragm 0.6/60	0 to 2500 mbar	1400-7830
		0 to 3600 mbar	1400-7831
Tool to mount range springs and diaphragm			1180-9907

i Note

The range springs of Media 6 can only be changed by the manufacturer.

Table 14: Spare diaphragms for Media 04/4/05/5/6 · Free of oil and grease for oxygen

Diaphragm	Span	Order no.	Media ...
ECO diaphragm 0.4/60	0 to 400 mbar	1402-0664	05/5/6
ECO diaphragm 0.4/60	600 to 1600 mbar	1402-0665	
ECO diaphragm 0.6/60	2500 to 3600 mbar	1402-0666	
ECO diaphragm 0.4/60	0 to 1600 mbar	1402-0833	04/4
ECO diaphragm 0.6/60	1600 to 2500 mbar	1402-0834	
Tool to mount range springs and diaphragm		1180-9907	

i Note

Read the mounting and operating instructions before replacing the range springs and diaphragm.

8 Electric pressure transmitter CTMd(r) for direct attachment

Table 15: Technical data and materials · Free of oil and grease for oxygen

Pressure transmitter CTMd(r) ¹⁾	
Power supply	24 V _{DC} +/-10 %
Electrical connection according to DIN 43650	4-pin DIN connector
Output (optional)	Two-wire version: 4 to 20 mA Three-wire version ²⁾: 0 to 20 mA or 0 to 10 V _{DC}
Perm. temperature range	-20 to +80 °C
Deviation from linearity	< 1 % of the pressure measuring range
Hysteresis	< 0.5 % of the pressure measuring range
Degree of protection (IEC 60529)	IP 65
Connecting sleeve	G ½ B according to EN 837-1
Materials · Material numbers according to DIN EN	
Housing	1.4305
Measuring element	1.4404
Gasket	NBR

¹⁾ See T 994-0050-3 or T 994-0050-6 for other pressure transmitters

²⁾ On request

Table 16: Order numbers of CTMd(r)

Pressure measuring range	Order no.	Pressure measuring range	Order no.
0 to 4 bar	8523-0295	0 to 25 bar	8523-0299
0 to 6 bar	8523-0296	0 to 40 bar	8523-0300
0 to 10 bar	8523-0297	0 to 60 bar	8523-1006
0 to 16 bar	8523-0298		-

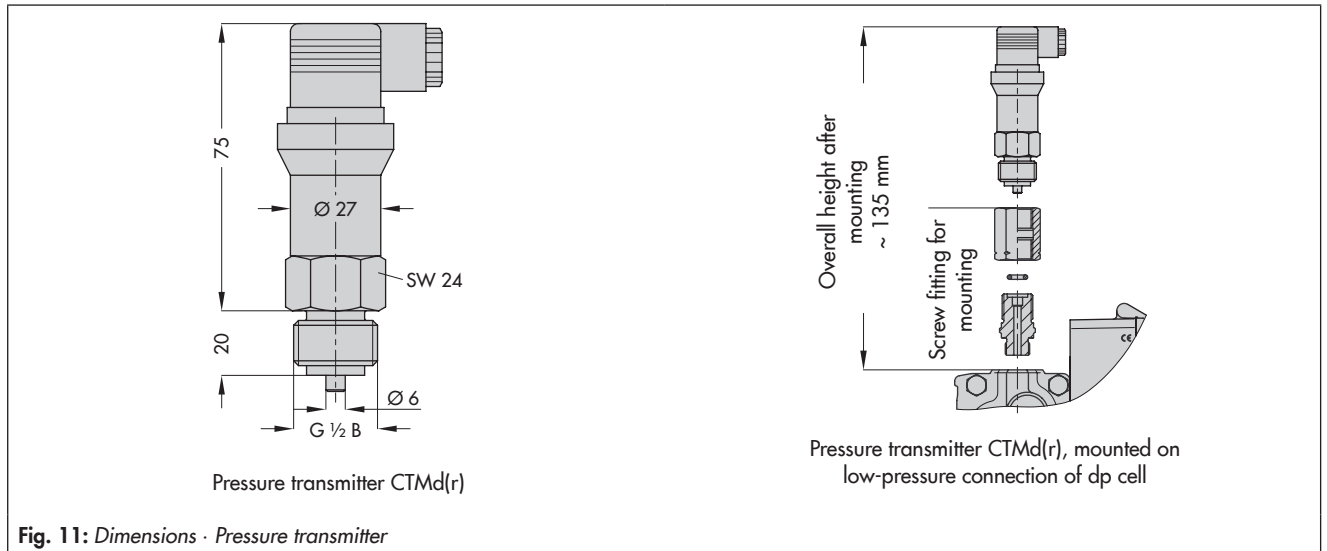


Fig. 11: Dimensions · Pressure transmitter

Screw fitting for mounting a pressure gauge with radial connection and pressure sensor · Free of oil and grease for oxygen

- Coupling sleeve G ½, stainless steel
- 8x3 O-ring, NBR
- G ¾ x G ½ LH screw fitting, stainless steel

Table 17: Screw fitting for mounting · Order numbers

Screw fitting for mounting	Order no.
Coupling sleeve, O-ring, and screw fitting	1400-7642

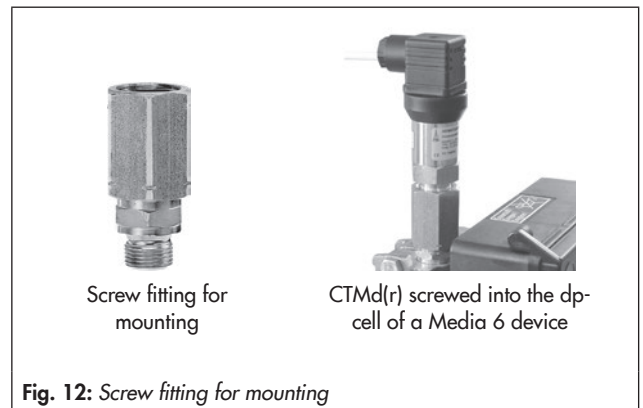


Fig. 12: Screw fitting for mounting

9 Battery supply unit

The battery supply unit for Media 6 devices can be used during the first commissioning, continuous measurement, and for maintenance work on cryogenic tanks.

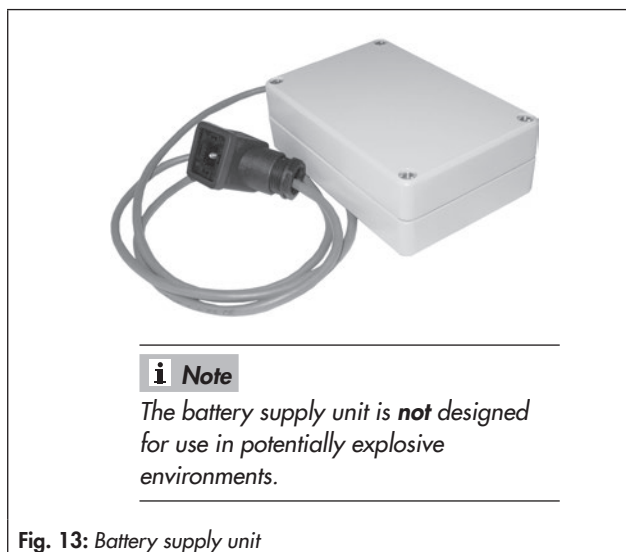


Fig. 13: Battery supply unit

Table 18: Technical data · Order numbers

Battery supply unit	
Operating voltage	9 V _{DC} /2.5 A (six 1.5 V AA batteries)
Operation duration	Up to two years ¹⁾
Housing	Cast aluminum alloy
Degree of protection	IP 67
Connecting cable	1 m silicone cable with connector
Attachment (on tank)	With two magnets
Permissible ambient temperature range	-40 to 120 °C
Dimensions (inc. magnet)	120 x 80 x 45 mm
Weight	0.5 kg
Order no.	1400-9744

¹⁾ Service life with alkaline batteries: Media 6, firmware 3.10 and higher

10 Type 5024-1 Power Supply and Indicator Unit with limit contacts

Type 5024-1 Power Supply and Indicator Unit · To supply voltage for Type 5014 Media 4 A two-wire and Media 6 Besides from indicating the current measured values, two floating limit contacts generate analog limit alarms if the measured values are below/above the adjustable values.

Table 19: Version · Order number

Type · Supply voltage	Order no.
5024-1001 · 230 V _{AC}	1190915

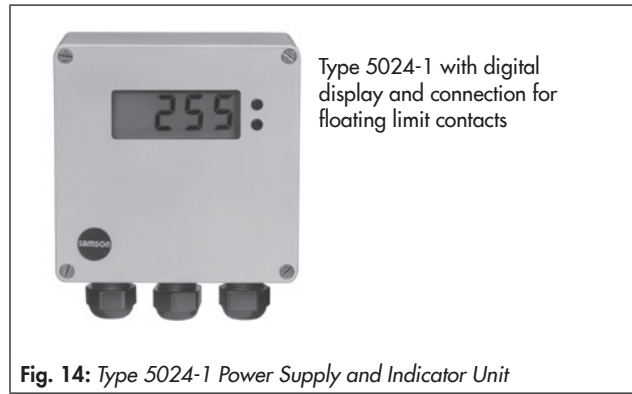


Fig. 14: Type 5024-1 Power Supply and Indicator Unit

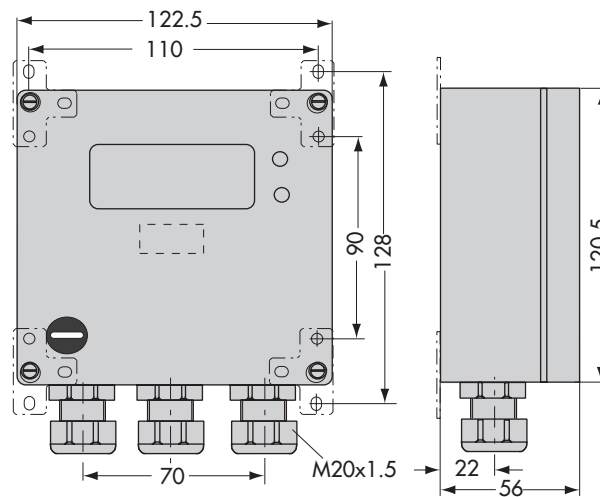


Fig. 15: Dimensions · Type 5024-1 Power Supply and Indicator Unit

Table 20: Technical data for Type 5024-1

Power supply and indicator unit for 4 to 20 mA two-wire circuit	Type 5024-1001
Auxiliary power	230 V, 45 to 60 Hz
Power consumption	Approx. 1.8 VA
Measuring circuit	4 to 20 mA
Transmitter supply	20 V at 20 mA
Output	Two floating limit contacts, max. 250 V _{AC} /3 A
Contact rating	≥10 ⁶ AC voltage and max. 300 W ohmic load
Permissible ambient temperature range	0 to 50 °C
Degree of protection	IP 54

i Note

The device can be mounted on a panel or the wall either directly or using the included mounting bracket, nuts and bolts.

The option module with 4 to 20 mA current output can be added to the standard version of the Media 5. It is installed in the indicating unit and can either be ready installed in the device on delivery or retrofitted later.

The current output module upgrades the analog reading of the device by issuing the current signal which can be used as a reading or for further processing.

The angle of the pointer axis of the Media 5 is measured by the magnetoresistive measuring system and converted into an electric signal. To operate the option module with 4 to 20 mA current output, a transmitter supply voltage of $U_B = 12$ to 36 V (DC) is required for the 4 to 20 mA measuring circuit. For this purpose, the Type 5024-1 Power Supply and Indicator Unit can be used (see page 10).

Table 21: Order numbers

Option module for Media 5	Order no.
4 to 20 mA current output	1402-1501

i Note

Details on option module with 4 to 20 mA current output
 ► EB 9519-1.

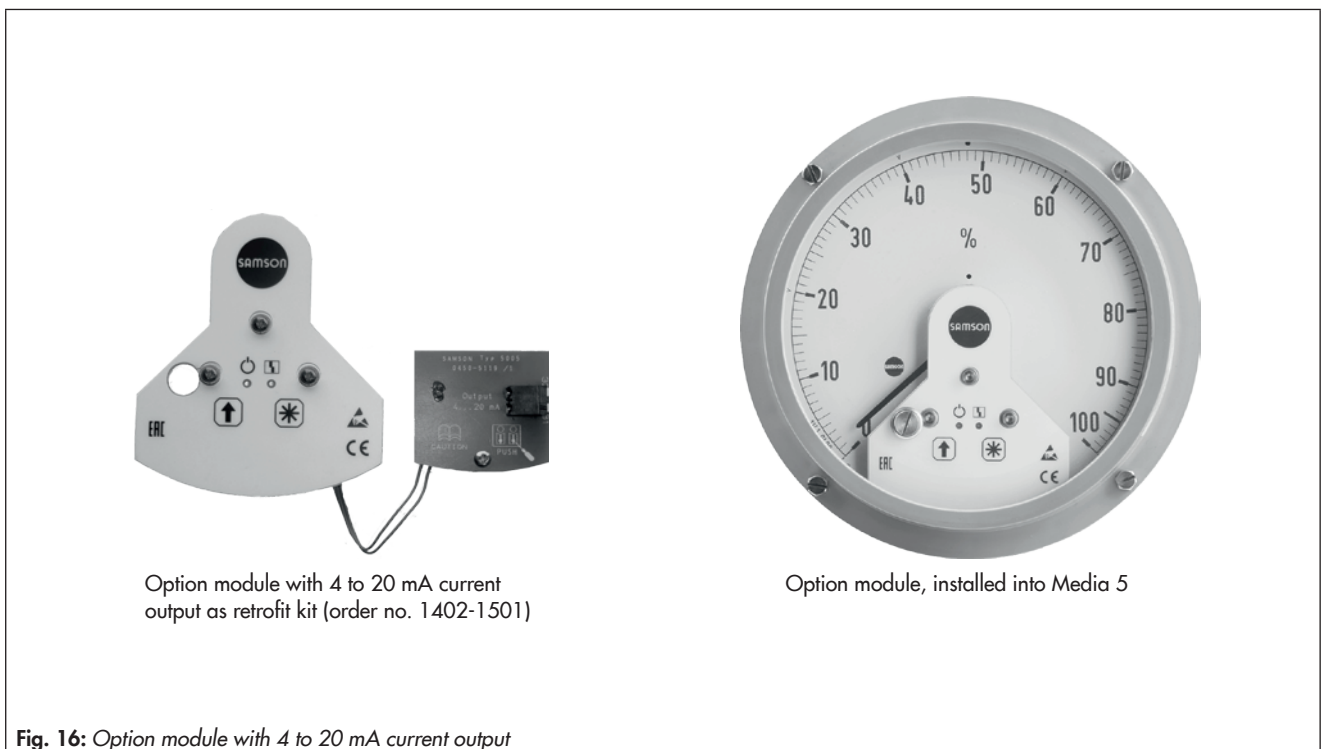


Fig. 16: Option module with 4 to 20 mA current output

Table 22: Technical data

Option module with 4 to 20 mA current output	
Version	Magnetoresistive measuring system
Supply voltage U_B	12 to 36 V (DC)
Output signal	4 to 20 mA, two-wire system
Perm. load R_B in Ω	$R_B = (U_B - 12 \text{ V}) / 0.020 \text{ A} \mid (R \leq 600 \Omega \text{ at } 24 \text{ V and } 20 \text{ mA})$
Power consumption	103 mW
Settings	Zero calibration Span calibration Characteristic selection Test function
Characteristic	Output and reading linear or square root extraction depending on installed flow characteristic Characteristic set at the factory
Deviation from terminal-based linearity	$< \pm 0.2 \%$, related to 270° measuring span
Sensitivity	$< \pm 0.05 \%$, related to 270° measuring span
Effect of ambient temperature in the range from -40 to $+80$ °C	$< 0.1 \%$ / 10 K for zero and span
Compliance	CE ENEC

TROVIS-VIEW 6661 configuration software

A Media 6 Digital Transmitter can be operated over a computer using the TROVIS-VIEW Configuration and Operator Interface.

The operator interface contains all functions of Media 6, together with the required information. The system can be configured and operated entirely over a computer.

Media 6 needs to be connected to the serial interface at COM 1 to 225 of the computer using the appropriate connecting cable.

i Note

TROVIS-VIEW can be downloaded free of charge from our website at www.samson.de > Services > Software > TROVIS-VIEW.

Connecting cable (computer - Media 6)

To establish communication between computer and the Media 6 device, the serial interface (COM 1 to 255) of the computer must be connected to the serial interface port of the Media 6 device.



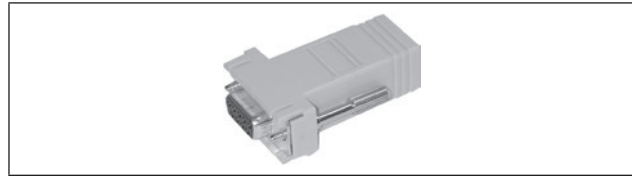
Memory pen

Data (e.g. tank type and associated gas data) can be uploaded to the memory pen (independently from the computer model) and transmitted to Media 6 over the RS-232 interface. A connection between the computer and Media 6 is not required in this case.



Modular adapter

SAMSON modular adapter is used to transfer configuration data between the computer and memory pen.



USB/RS-232 adapter

If the computers does not have a COM port, a USB/RS-232 adapter can be used with the Windows® operating systems.

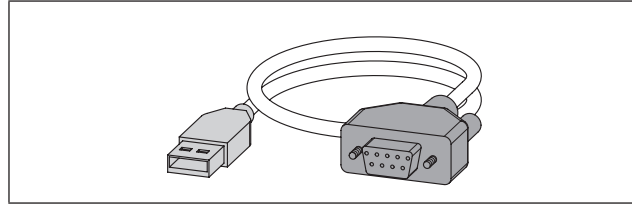


Table 23: Order numbers

Ordering text · Product	Order no.
CD-ROM including TROVIS-VIEW 4 Configuration and Operator Interface with Media 6 database module, and SSP-DDE communication server	2938759
Hardware package consisting of: one memory pen, one modular adapter, one connecting cable	1400-9998
Modular adapter	1400-7698
Connecting cable	1400-7699
Memory pen	1400-9753
USB/RS-232 adapter	8812-2001

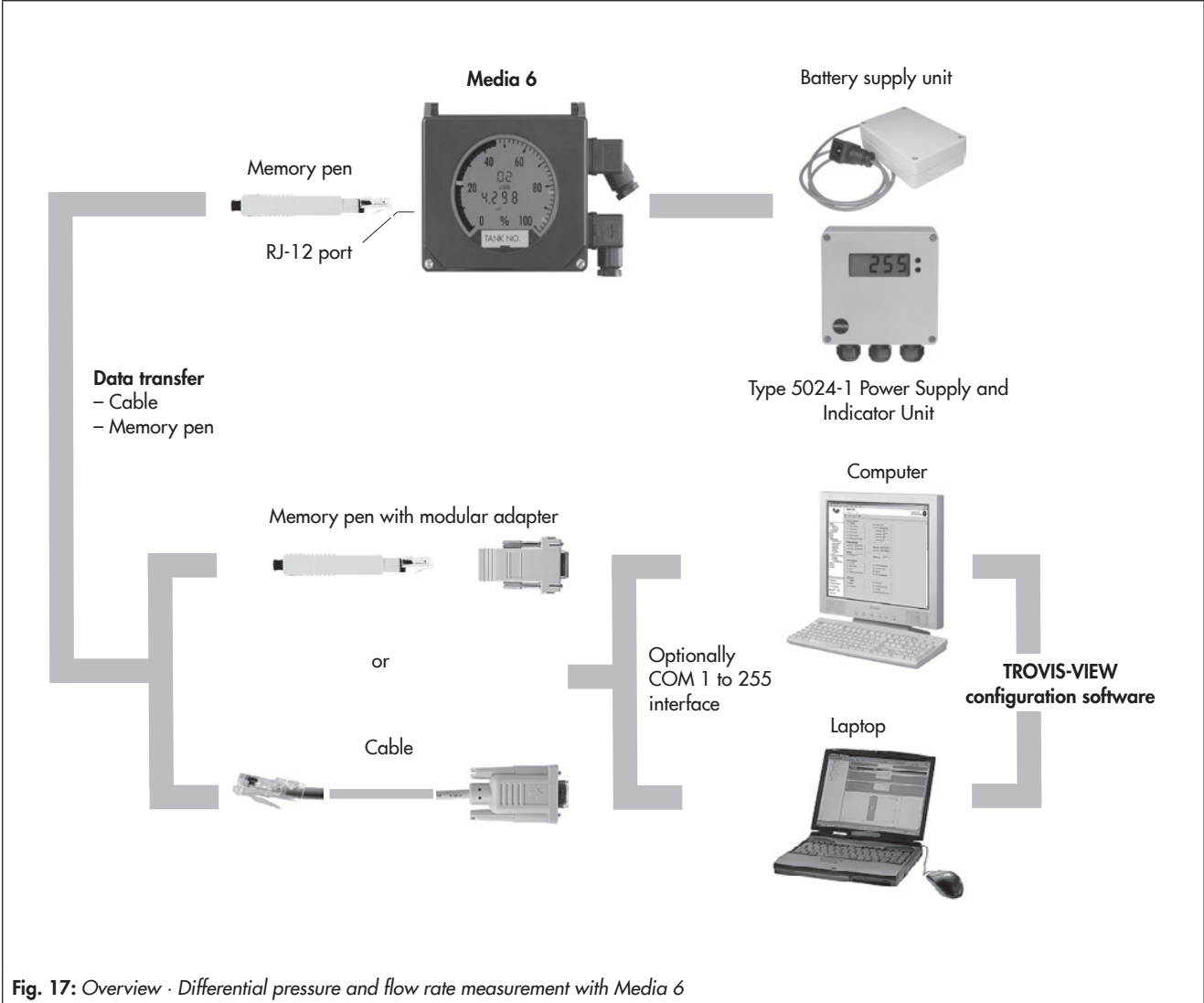


Fig. 17: Overview · Differential pressure and flow rate measurement with Media 6

13 Application notes

Oxygen service

When Media devices are used for oxygen service, make sure that the dp cell and any SAMSON accessories (e.g. valve block) only come into contact with gaseous oxygen.

Specifications subject to change without notice



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