



## CERTIFICATE

German Social Accident Insurance Institution for the energy, textile, electrical and media products sectors certifies the successful implementation of an Occupational Safety and Health Management System.

The company

**Siemens AG**

**Siemens Deutschland**

**Smart Infrastructure – RC-DE SI**

**De-Saint-Exupéry-Straße 5**

**60549 Frankfurt am Main**

**with the locations according to annex**

meets the requirements of systematic and effective occupational safety, based on

the specific branch implementation of the **National Guidelines in line with ILO-OSH 2001**, the BG Basic Principles for OSH-MS Auditing, dated 2019-01.

In addition, compliance with the requirements of **DIN ISO 45001:2018** is confirmed.

This third renewed certificate is valid until July 31st, 2026.

Head of Prevention Department

Dr.-Ing. Jens Jühling

Cologne, August 31st, 2023



Head of OSH-MS Certification

B.A. Marion Seidel

Registration No 057594710000/497-3



## ANNEX to Certificate No. 497-3

### Location:

### Registration No:

Siemens AG – Otto-Hahn-Ring 6, 81739 München	020965441024
Siemens AG – Werner von Siemens Straße 6, 86159 Augsburg	020965441026
Siemens AG – Casselmannstraße 31, 95444 Bayreuth	020965441035
Siemens AG – Siemenspromenade 2, 91058 Erlangen	020965441034
Siemens AG – Im Gewerbepark A 52, 93059 Regensburg	020965441036
Siemens AG – Schweinfurter Straße 1, 97080 Würzburg	020965441037
Siemens AG – Robert-Koch-Straße 5, 82152 Planegg	020965441029
Siemens AG – De-Saint-Exupéry-Straße 5, 60549 Frankfurt am Main	020965441044
Siemens AG – Ferdinand-Nebel-Straße 1, 56070 Koblenz	020965441050
Siemens AG – Robert-Koch-Straße 50, 55129 Mainz	020965441047
Siemens AG – Dynamostraße 4, 68165 Mannheim	020965441051
Siemens AG – Werner-von-Siemens-Allee 4, 66115 Saarbrücken	020965441048
Siemens AG – Karl-Kellner-Ring 19-21, 35576 Wetzlar	020965441045
Siemens AG – Lindenplatz 2, 20099 Hamburg	020965441054
Siemens AG – Schweriner Straße 1, 33605 Bielefeld	020965441065
Siemens AG – Trautenaustraße 10, 38114 Braunschweig	020965441062
Siemens AG – Universitätsallee 16, 28359 Bremen	020965441058
Siemens AG – Bürgermeister-Brunner-Straße 15, 34117 Kassel	020965441066
Siemens AG – Sophienblatt 60, 24114 Kiel	020965441057
Siemens AG – Werner-von-Siemens-Straße 1, 30880 Laatzen	020965441061
Siemens AG – Industriestraße 15, 18069 Rostock	020965441055
Siemens AG – Nonnendammallee 101, 13629 Berlin	020965441010
Siemens AG – Clemens-Winkler-Straße 3, 09116 Chemnitz	020965441015
Siemens AG – Calauerstraße 70, 03048 Cottbus	020965441011
Siemens AG – Washingtonstraße 16/16 A , 01139 Dresden	020965441016
Siemens AG – Europaplatz 1, 99091 Erfurt	020965441017
Siemens AG – Schützenstraße 4-10, 04103 Leipzig	020965441019
Siemens AG – Werner-von-Siemens-Ring 14 A, 39116 Magdeburg	020965441012
Siemens AG – Ziegeleistraße 5, 99880 Waltershausen	020965441023
Siemens AG – Schwieberdinger Straße 95-97, 70435 Stuttgart	020965441089
Siemens AG – Eugen-Martin-Straße 14, 79106 Freiburg	020965441094
Siemens AG – Siemensallee 75, 76187 Karlsruhe	020965441096
Siemens AG – Lise-Meitner-Straße 13, 89081 Ulm	020965441091
Siemens AG – Klaus-Bungert-Straße 6, 40468 Düsseldorf	020965441071
Siemens AG – Friedrichstraße 60, 57072 Siegen	020965441073
Siemens AG – Neuenhofstraße 194, 52078 Aachen	020965441074
Siemens AG – Am Kabellager 9, 51063 Köln	020965441072
Siemens AG – Löwenstraße 11 A, 44135 Dortmund	020965441081
Siemens AG – Kruppstraße 16, 45128 Essen	020965441078
Siemens AG – Johann-Krane-Weg 36, 48149 Münster	020965441082
Siemens AG – Am Schürholz 1, 49078 Osnabrück	020965441080

valid until July 31st, 2026

Registrationnumber: 057594710000/497-3

Cologne, August 31st, 2023



# ZERTIFIKAT



Hiermit wird bescheinigt, dass

## Siemens AG

RC DE

Nonnendammallee 101  
13629 Berlin  
Deutschland  
mit den im Anhang gelisteten Standorten

ein Qualitätsmanagementsystem eingeführt hat und anwendet.

Geltungsbereich:

Vertrieb, Projektabwicklung und Service von Produkten, Systemen und Lösungen für

- intelligente Systeme und Anlagen der Energieversorgung und -verteilung, Gebäudetechnik/-automation einschl. Energiemanagement, Brandmelde- und Feuerlöschanlagen, sowie das Betreiben von Notruf- und Serviceleitstellen (Siemens Smart Infrastructure, RC-DE SI)
- industrielle Automatisierung und Digitalisierung sowie durchgängige Automatisierungslösungen in der Fertigungs- und Prozessindustrie (Siemens Digital Industries, RC-DE DI)

Durch ein Audit, dokumentiert in einem Bericht, wurde der Nachweis erbracht, dass das Managementsystem die Forderungen des folgenden Regelwerks erfüllt:

## ISO 9001 : 2015

Zertifikat-Registrier-Nr. 344882 QM15  
Gültig ab 2025-07-31  
Gültig bis 2028-07-30  
Zertifizierungsdatum 2025-06-23



DQS IS A MEMBER OF



DQS GmbH

Guido Eggers  
Geschäftsführer



Akkreditierte Stelle: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main  
Die Gültigkeit der Zertifizierung kann nur durch den QR-Code verifiziert werden.



Anhang zum Zertifikat  
Registrier-Nr. 344882 QM15

**Siemens AG**

RC DE

Nonnendammallee 101  
13629 Berlin  
Deutschland

**Mit den im Index aufgeführten Standorten**

**Für den Geltungsbereich Siemens Smart Infrastructure (RC-DE-SI)**

Vertrieb, Projektabwicklung und Service von Produkten, Systemen und Lösungen für intelligente Systeme und Anlagen der Energieversorgung und -verteilung, Gebäudetechnik/ -automation einschl. Energiemanagement, Brandmelde- und Feuerlöschanlagen, sowie das Betreiben von Notruf- und Serviceleitstellen

474051  
Siemens AG  
Siemens Deutschland  
SMART Infrastructure  
(RC-DE SI)  
De-Saint-Exupery-Str. 5  
60549 Frankfurt  
Deutschland



Anhang zum Zertifikat  
Registrier-Nr. 344882 QM15

**Siemens AG**

RC DE

Nonnendammallee 101  
13629 Berlin  
Deutschland

**Mit den im Index aufgeführten Standort**

**Für den Geltungsbereich Siemens Digital Industries (RC-DE DI)**

Vertrieb, Projektabwicklung und Service von Produkten, Systemen und Lösungen für industrielle Automatisierung und Digitalisierung sowie durchgängige Automatisierungslösungen in der Fertigungs- und Prozessindustrie

474036  
Siemens AG  
Siemens Deutschland  
Digital Industries  
(RC-DE DI)  
Siemenspromenade 2  
91058 Erlangen  
Deutschland



# Anhang zum Zertifikat Registrier-Nr. 344882 QM15

## Siemens AG

RC DE

Nonnendammallee 101  
13629 Berlin  
Deutschland

Index der Standorte					
AZ	Ort	PLZ	Straße	SI	DI
246651	Dresden	01139	Washingtonstr. 16/16 A	X	X
002693	Leipzig	04103	Talstraße 1-5	X	X
076957	Chemnitz	09116	Clemens-Winkler-Straße 3	X	X
474053	Berlin	13629	Nonnendammallee 101	X	X
246660	Rostock	18069	Industriesstr. 15	X	X
002692	Hamburg	20099	Lindenplatz 2	X	X
246650	Kiel	24114	Sophienblatt 60	X	X
246649	Bremen	28197	Senator-Apelt-Str. 53	X	X
31602633	Laatzten	30880	Werner-von-Siemens-Straße 1	X	X
075915	Bielefeld	33605	Schweriner Str. 1	X	X
246659	Kassel	34117	Bürgermeister-Brunner-Str. 15	X	X
217659	Braunschweig	38126	Trautenastr. 10	X	X
076956	Magdeburg	39116	Werner-von-Siemens-Ring 14a	X	X
378783	Düsseldorf	40468	Klaus-Bungert-Str. 6	X	X
474130	Dortmund	44135	Löwenstraße 11a	X	
474120	Essen	45127	Paul-Klinger-Str. 7-11	X	X
474040	Essen	45128	ThyssenKrupp Allee 1	X	X
217458	Münster	48149	Johann-Krane-Weg 36	X	X
075933	Osnabrück	49078	Am Schürholz 1	X	X
474039	Köln	51063	Am Kabellager 9	X	X
217148	Aachen	52078	Neuenhofstr. 194	X	X
217635	Mainz	55129	Robert-Koch-Str. 50	X	X
075924	Koblenz	56070	Ferdinand-Nebel-Straße 1	X	X
216997	Siegen	57072	Friedrichstr. 60	X	X
536784	Frankfurt	60326	Kleyerstraße 90	X	
309832	Frankfurt am Main	60549	De-Saint-Exupery-Str. 5	X	X
246655	Saarbrücken	66115	Werner-von-Siemens-Allee 4	X	X
338763	Mannheim	68163	Hans-Thoma-Straße 8-10	X	X
474047	Stuttgart	70499	Schwieberdinger Str. 95-97	X	X
246668	Karlsruhe	76187	Siemensallee 75	X	X
246667	Freiburg	79106	Eugen-Martin Straße 14	X	X
498627	München	81739	Otto-Hahn-Ring 6	X	X
246644	Augsburg	86159	Melli-Beese-Straße 5	X	X
246669	Ulm	89081	Max-Born-Str. 12	X	X
532355	Fürth	90766	Breslauer Str. 5		X
474055	Erlangen	91058	Siemenspromenade 2	X	X
246647	Regensburg	93059	Im Gewerbepark A 52	X	X
077011	Bayreuth	95444	Casselmanstr. 31	X	X
246648	Würzburg	97080	Schweinfurter Str. 1	X	X
246652	Erfurt	99091	Europaplatz 1	X	X

Climatix™

## Climatix HMI-TM

POL871.61, POL871.62



### The HMI-TM for display and system configuration for Climatix controllers

- Advanced operation and IP protection level for use outside
- High resolution 240 x 128 dpi
- 6 keys for easy operation
- ALARM, INFO, and CANCEL with LEDs
- User passwords for each access level
- Supports multiple languages
- Local HMI settings
- Data point access
- Powered by controller via the local HMI connection
- Version POL871.61 for magnetic mounting and as a mobile unit
- Version POL871.62 for permanent installation in the control panel
- Firmware can be upgraded

**Communication concept**

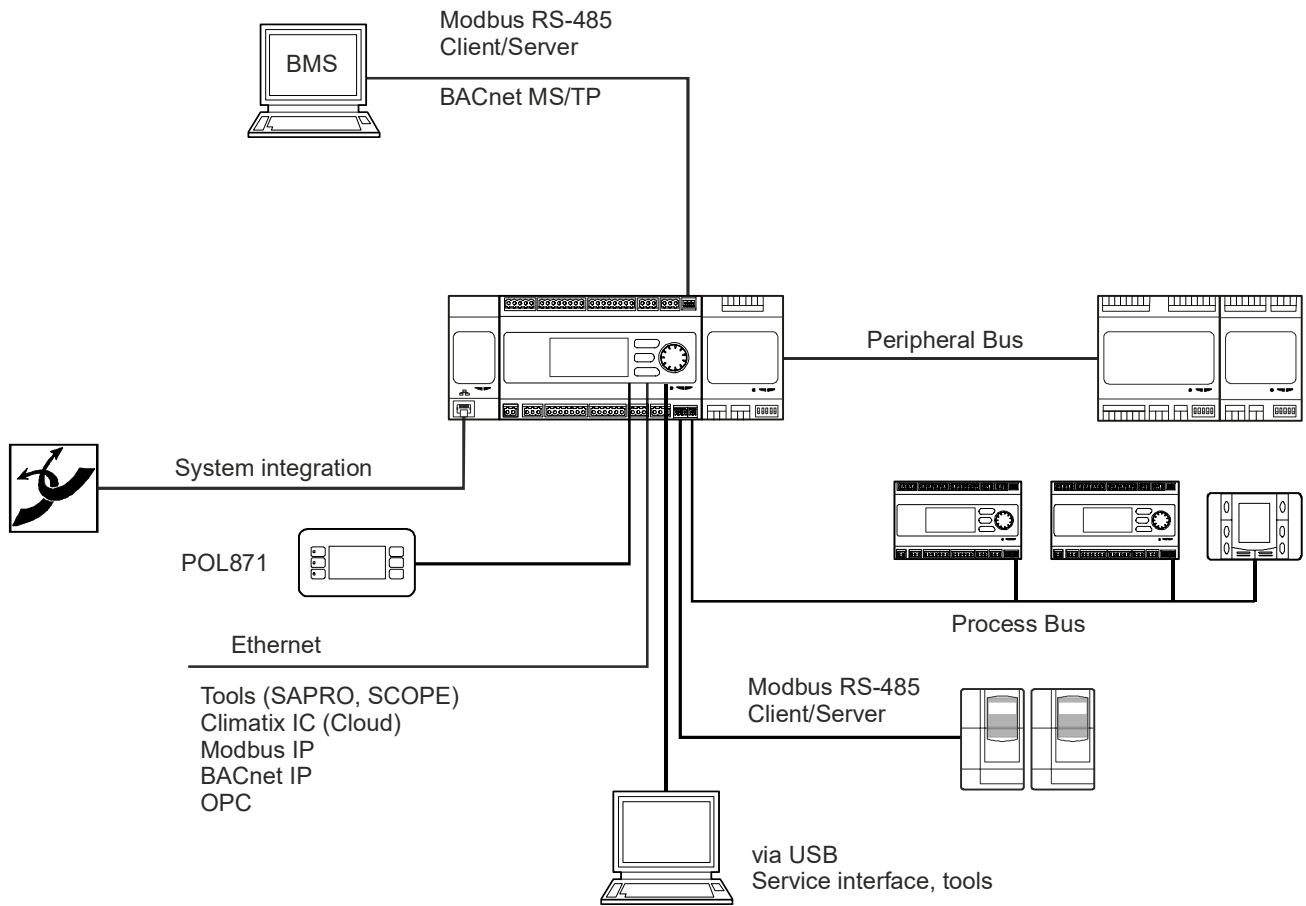


Fig. 1: Climatix POL6xx communication concept (here C600)

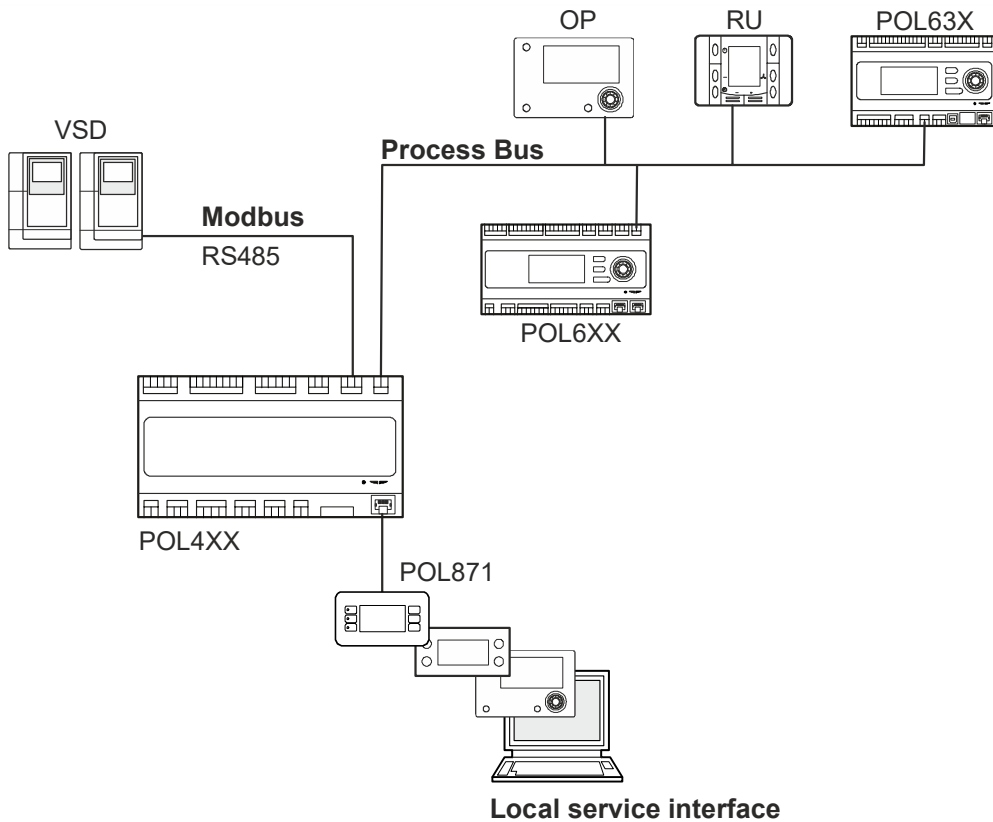


Fig. 2: Climatix POL4xx communication concept (here POL4xx)

<b>General data</b>	
Dimensions (W x H x D)	173.2 x 95.5 x 21.6 mm for POL871.61 173.2 x 95.5 x 33.1 mm for POL871.62
Materials and colors	Lens: Makrolon 2405, transparent Keyboard: Silicone rubber, RAL7035 Housing: Front: Makrolon 6485, RAL7035 Rear: Makrolon 6485, RAL5014
Without packaging	350 g for POL871.61 221 g for POL871.62
Weight (with packaging)	433 g for POL871.61 371 g for POL871.62
Panel thickness restriction for POL871.62 installation	Min. 0.5 mm Max. 1.5 mm

<b>Power supply</b>	
Power supply via controller	DC 24 V, 60 mA

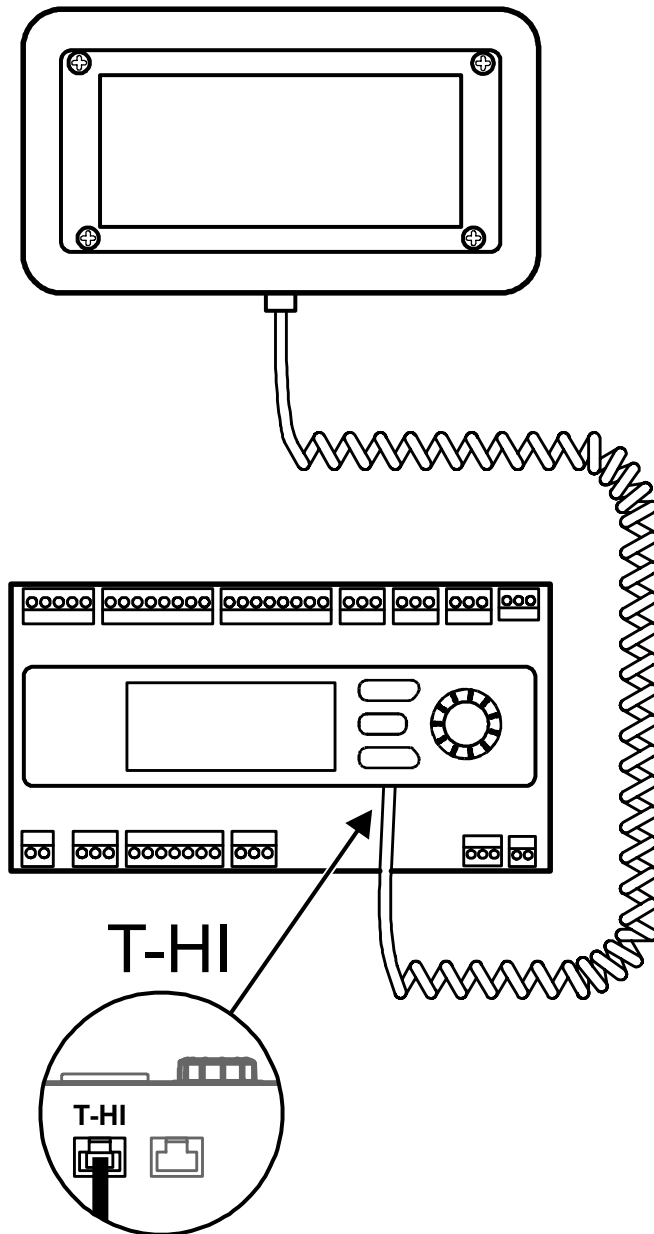
<b>Display</b>	
LCD type	STN blue, negative
Resolution	Dot-matrix 240 X 128
Backlit display	White LEDs
Size	
LCD size	93 x 58 mm
Display Size	86.15 x 47.78 mm
Display angle <sup>1)</sup>	
From above	41°
From below	21°
<sup>1)</sup> The viewing angle corresponds to the angle at a contrast ratio that is greater than 2.	

Ambient conditions and protection classification	
Classification as per EN 60730 Degree of pollution	2
Protect against shock	Protection class III
Degree of protection of housing to EN 60529	IP65 for entire POL871.61 IP65 for front of POL871.62 (use fasteners for assembly) IP20 for rear of POL871.62
Climatic ambient conditions <ul style="list-style-type: none"> <li>Transport and storage (packaged) Per IEC/EN 60721-3-2 / -3-1</li> </ul>	<ul style="list-style-type: none"> <li>Temperature -40...+70 °C (-40...+158 °F)</li> <li>Air humidity 5...95 % (non-condensing)</li> <li>Min. air pressure of 260 hPa, corresponding to max. 10,000 m above sea level</li> </ul>
<ul style="list-style-type: none"> <li>Operation per IEC/EN 60721-3-3</li> </ul>	<ul style="list-style-type: none"> <li>Temperature -40...+70 °C (-40...+158 °F)</li> <li><b>On LCD:</b> Temperature limitation -20...60 °C !</li> <li>Air humidity 5...95 % (non-condensing)</li> <li>Min. air pressure 700 hPa, corresponding to max. 3,000 m above sea level.</li> </ul>

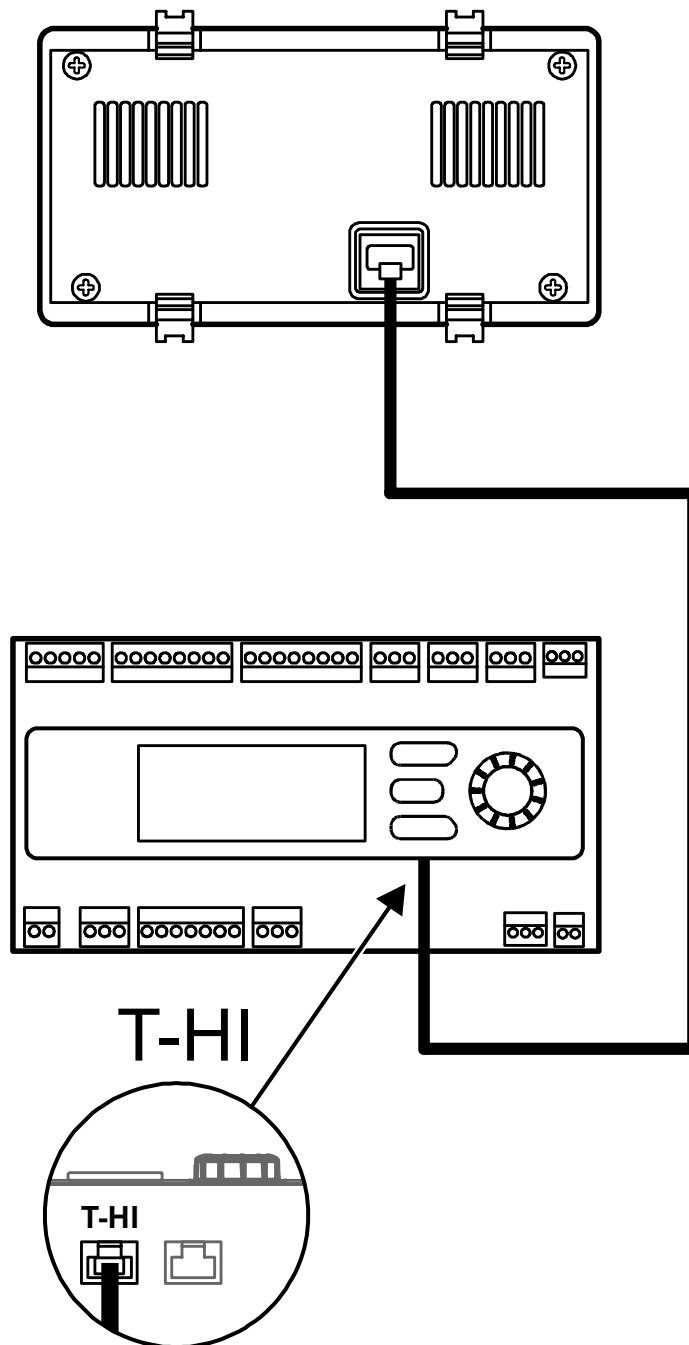
Standards, directives and approvals	
Product standards	IEC/EN 60730-1 Automatic electronic controls for household and similar use
Electromagnetic compatibility	For residential, commercial, and industrial environments
EU conformity (CE)	A5W00442844A
UK compliance (UKCA)	A5W00442846A
RCM Conformity	A5W00442845A
UL certification FCC	cUL916, UL873, <a href="http://database.ul.com">http://database.ul.com</a> CFR 47 part 15 B. (devices without WLAN/RF)
Environmental compatibility	Environmental Declaration A5W00346618A contains data on environmental-compatible product design and assessment (RoHS compliance, compositions, packaging, environmental benefits and disposal).

**Local HMI connection**

POL871.61	
Connection	Cable in HMI-TM 1 RJ45 port on the controller
Cable length on the HMI side	2.5 m expandable spiral cable (1 m flat + 1.5 m expandable spiral cable)
Cable type	Integrated cable with RJ45 plug (4-wire twisted pair)



POL871.62	
Connection	Cable with RJ45 plugs on both sides
Cable length on the HMI side	1.5 m
Cable type	A separate Cat-5 Ethernet cable with two RJ45 plugs (8-wire twisted pair)



## Ordering

Type	Stock number	Designation
POL871.61/STD	S55626-H516-B100	HMI-TM for magnetic mounting and mobile operation
POL871.62/STD	S55626-H516-C100	HMI-TM for mounting in control panels

## Delivery

Type	Contents
POL871.61/STD	<ul style="list-style-type: none"><li>• One HMI-TM</li><li>• With 4-wire twisted pair spiral cable, with one RJ45 plug</li><li>• Total cable length 2.5 m (1 m flat, 1.5 m expandable spiral cable)</li></ul>
POL871.62/STD	<ul style="list-style-type: none"><li>• One HMI-TM</li><li>• Separate 1.5 m Cat-5 Ethernet cable (8-wire twisted pair) with two RJ45 plugs</li><li>• Two terminals with screws (for assemblies requiring IP65)</li></ul>

## Product documentation

Document ID	Title	Topic
Q3900	Climatix range	Climatix product range
M3910	Mounting instructions for POL871.xx	Mounting and installation
P3917	"Climatix HMI application", Basic document	Basic documentation

## Notes

### Safety: National safety regulations

#### CAUTION



#### National safety regulations

Failure to comply with national safety regulations may result in personal injury and property damage.

- Observe national provisions and comply with the appropriate safety regulations.

### Engineering notes

#### NOTICE



Design to SELV per EN 60730-1. Use caution when wiring to protect against accidental contact with other parts when energized above 42 V<sub>eff</sub>.

## Disposal

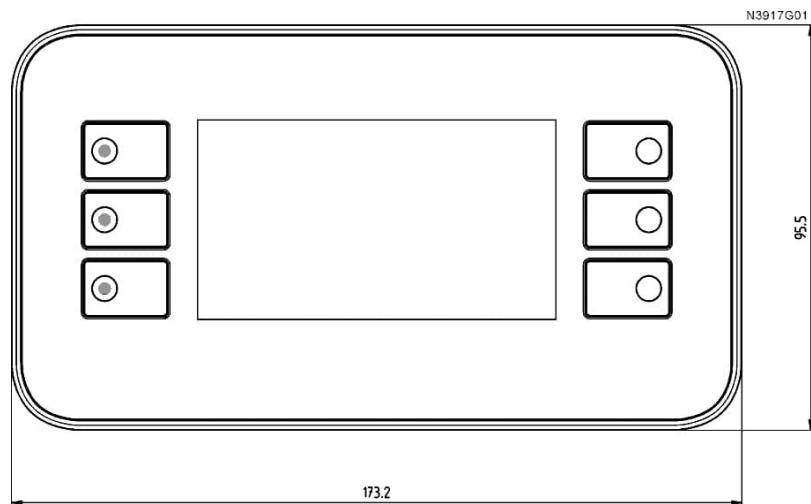


This symbol or any other national label indicate that the product, its packaging, and, where applicable, any batteries may not be disposed of as domestic waste. Delete all personal data and dispose of the item(s) at separate collection and recycling facilities in accordance with local and national legislation.

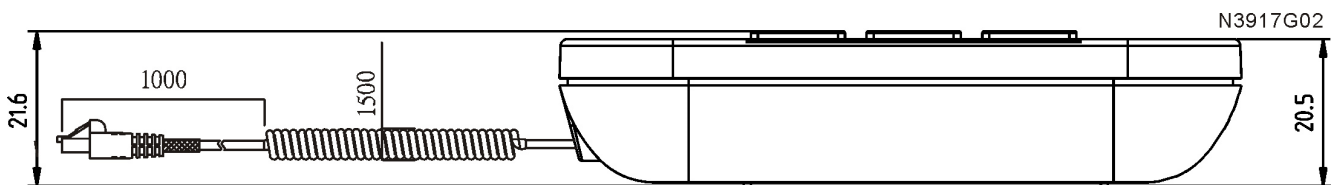
For additional details, refer to [Siemens information on disposal](#).

## Dimensions

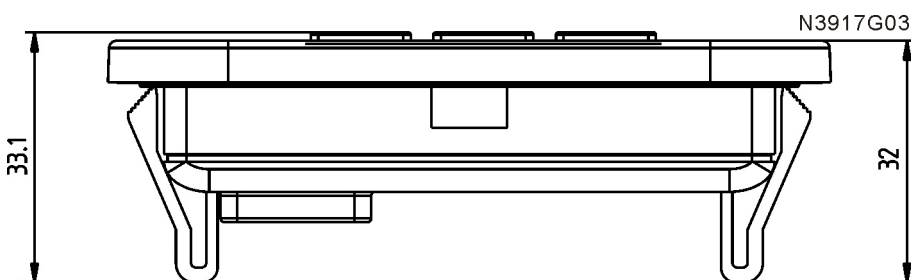
Dimensions in mm



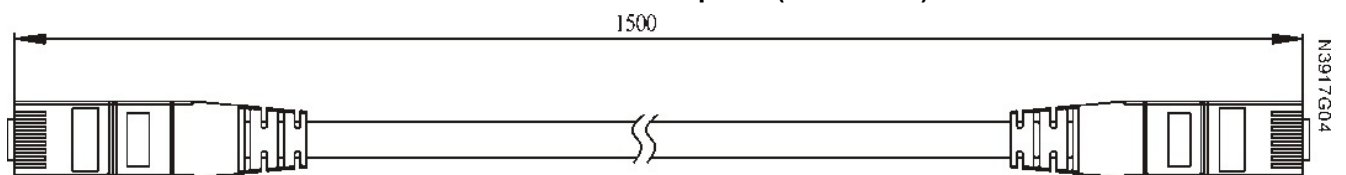
**POL871.61**



**POL871.62**



**Cable to mounted version in control panel (POL871.62)**



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Edition        2023-06-13

ACVATIX

## Electromotive actuators for valves

SAS..



### Actuators with 5.5 mm stroke and 400 N force

- SAS31.. Operating voltage AC 230 V, 3-position control signal
- SAS61.. Operating voltage AC 24 V / DC 24 V  
Positioning signal DC 0...10 V / DC 4...20 mA / 0...1000  $\Omega$
- SAS61./MO operating voltage AC 24 V / DC 24 V  
RS485 for Modbus RTU communication
- SAS81.. Operating voltage AC/DC 24 V, 3-position control signal
- For direct mounting on valves; no adjustments required
- Manual adjuster, position and status indication (LED)
- Optional function extension with auxiliary switch

## Application

To operate Siemens 2-port and 3-port valves:

- Types V..G44.., VVG55.., and VVG549..
- 5.5 mm stroke

Used as control and shutoff valves in heating and ventilation plants.

Together with the ASK30 mounting kit, all former Landis & Gyr valves with 4 mm or 5.5 mm stroke can also be operated: X3i.., VVG45.., VXG45.., VXG46.., VVI51...

## Features

Function	Description	Type
3-position control	A 3-position signal controls the actuator via connection terminals Y1 or Y2. The desired position is transmitted to the valve.	SAS31.. SAS81..
Modulating control	The positioning signal range (DC 0...10 V / DC 4...20 mA / 0...1000 Ω) corresponds to the positioning range (closed...open, or 0...100% stroke) in a linear manner.	SAS61..
Positioning signal and characteristic changeover	Setting with DIL switch. Factory setting SAS..: <ul style="list-style-type: none"> <li>• Characteristic curve: log = Equal percentage (switch set to Off)</li> <li>• Positioning signal: DC 0...10 V (switch set to Off)</li> </ul>	
Position feedback U	Signal returned to acquire the position via input.	
Forced control (Z-mode)	Forced control helps override automatic mode and is implemented via higher control.	
Calibration	Carry out during initial commissioning. The actuator drives to the top or bottom end position; the measured values are saved.	SAS61.. SAS61../MO
Valve seat detection	The actuators have power-dependent seat detection. After calibration, the exact valve stroke is stored in the actuator's memory.	
Foreign body detection	After clogging is detected, three attempts are made to get past clogging. If unsuccessful, the actuator continues to follow the positioning signal only within a limited range, and the LED flashes red.	
Modbus RTU (RS-485), not galvanically isolated	Setpoint 0..100% valve position Actual value 0..100% for valve position Override control Open / Close / Min / Max / Stop Setpoint monitoring and backup mode	SAS61../MO

## Type summary

Type	Item NO.	Operating voltage	Positioning signal	Positioning time	Spring return		Manual adjustment <sup>1)</sup>	Position feedback	Comment	
					funct.	time				
SAS31.00	S55158-A106	AC 230 V	3-pos.	120 s	No	-	Yes	-	2)	4)
SAS31.03	S55158-A107			30 s						
SAS31.50	S55158-A108			120 s	Yes	<28 s <sup>6)</sup>	No			
SAS31.53	S55158-A109			30 s						
SAS61.03	S55158-A100	AC/DC 24 V	DC 0...10 V DC 4...20 mA 0...1000 Ω	30 s	No	-	Yes	DC 0...10 V	2)	5)
SAS61.03U	S55158-A100-A100								3)	
SAS61.03/MO	S55158-A121								Modbus RTU	
SAS61.33	S55158-A101			DC 0...10 V DC 4...20 mA 0...1000 Ω	Yes	<14 s <sup>6)</sup>	No	DC 0...10 V	2)	
SAS61.33U	S55158-A101-A100								3)	
SAS61.33/MO	S55158-A122			Modbus RTU	2), 7)					
SAS61.53	S55158-A102			DC 0...10 V DC 4...20 mA 0...1000 Ω	No	DC 0...10 V	2)			
SAS81.00	S55158-A103	AC/DC 24 V	3-pos.	120 s	No	-	Yes	-	2)	
SAS81.03	S55158-A104			30 s					2)	
SAS81.03U	S55158-A104-A100								3)	
SAS81.33	S55158-A105			Yes	<14 s <sup>6)</sup>	2)				
SAS81.33U	S55158-A105-A100					3)				

<sup>1)</sup> Not designed for continuous operation

<sup>5)</sup> Approvals: CE, UL

<sup>2)</sup> Cable gland: M16, M20 (ISO50262)

<sup>6)</sup> Spring return time at low temperatures slightly longer

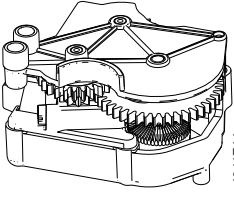
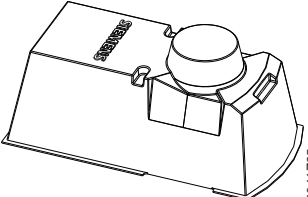
<sup>3)</sup> Cable gland ½" (UL514C)

<sup>7)</sup> Fixed connection cable 5 x 0.75 mm<sup>2</sup>

<sup>4)</sup> Approbation: CE

### Delivery

Actuators, valves, and accessories are supplied in individual packs.

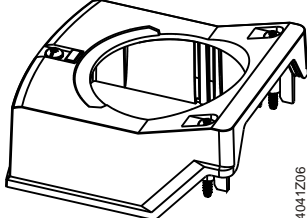
Electrical accessories	Mechanical accessory
<p>Auxiliary switch ASC10.51</p>  <p style="text-align: right; font-size: small;">4041Z14</p>	<p>Weather shield <sup>1)</sup> ASK39.2</p>  <p style="text-align: right; font-size: small;">4041Z25</p>

<sup>1)</sup> SAS61../MO is not intended for outdoor use

### Ordering (example)

Type	Order number	Designation	Number of pieces
SAS31.00	S55158-A106	Actuator	1
+ auxiliary components such as connections, aux switches, etc.			

### Spare parts

Order number	Description	
S55845-Z180	<p>Type ASQ1: Housing cover with associated screws and light guide as component, without laser labeling</p>  <p style="text-align: right; font-size: small;">4041Z06</p>	

## Device combinations

Valves PN16					Actuators SAS..	
VVG44.. (2-port)	VXG44.. (3-port)	DN	G	k <sub>vs</sub>	Δp <sub>s</sub>	Δp <sub>max</sub>
Medium: 1...120 °C			[inch]	[M <sup>3</sup> /h]	[kPa]	[kPa]
VVG44.15-.. <sup>1)</sup>	VXG44.15-.. <sup>1)</sup>	15	G 1 B	0.25 / 0.4 / 0.63	1600	400
VVG44.15-.. <sup>1)</sup>	VXG44.15-.. <sup>1)</sup>	15	G 1 B	1 / 1.6	725	400
VVG44.15-.. <sup>1)</sup>	VXG44.15-.. <sup>1)</sup>	15	G 1 B	2.5 / 4	400	400
VVG44.20-6.3	VXG44.20-6.3	20	G 1 ¼ B	6.3	750	400
VVG44.25-10	VXG44.25-10	25	G 1 ½ B	10	400	400
VVG44.32-16	VXG44.32-16	32	G 2 B	16	250	250
VVG44.40-25	VXG44.40-25	40	G 2 ¼ B	25	125	125

<sup>1)</sup> = use k<sub>vs</sub> value

Valves PN25					Actuators SAS.. <sup>1)</sup>	
VVG549. (2-port)	DN	G	k <sub>vs</sub>	Δp <sub>s</sub>	Δp <sub>max</sub>	
Medium: 1...130 °C		[inch]	[m <sup>3</sup> /h]	[kPa]	[kPa]	
VVG549.15-0.25	15	G ¾ B	0.25	2500	1200	
VVG549.15-0.4	15	G ¾ B	0.4	2500	1200	
VVG549.15-0.63	15	G ¾ B	0.63	2500	1200	
VVG549.15-1	15	G ¾ B	1.0	1500	1200	
VVG549.15-1.6	15	G ¾ B	1.6	1500	1200	
VVG549.15-2.5	15	G ¾ B	2.5	1500	1200	
Pressure compensated						
VVG549.20-4K	20	G 1 B	4.0	1600	1200	
VVG549.25-6.3K	25	G 1 ¼ B	6.3	1600	1200	

<sup>1)</sup> SAS.. combined with VVG549: Change DIL switch setting to linear (factory setting = log).  
SAS../MO: Change additional Modbus register 263 to "0 = linear"

Valves PN25				Actuators SAS..	
VVG55.. (2-port) <sup>1)</sup>	DN	G	k <sub>vs</sub>	Δp <sub>s</sub>	Δp <sub>max</sub>
Medium: 1...130 °C		[inch]	[m <sup>3</sup> /h]	[kPa]	[kPa]
VVG55.15-.. <sup>2)</sup>	15	G ¾ B	0.25 / 0.4 / 0.63	2500	1200
VVG55.15-.. <sup>2)</sup>	15	G ¾ B	1 / 1.6 / 2.5	2000	1200
VVG55.20-4	20	G 1 B	4	1000	1000
VVG55.25-6.3	25	G 1 ¼ B	6.3	800	800

<sup>1)</sup> VVG55 is replaced by VVG549 from Jan 1, 2017.

<sup>2)</sup> = use k<sub>vs</sub> value

## Product documentation

Title	Contents	Document ID
Actuators SAS.., SAT.. for valves	Basic documentation: Comprehensive information on actuators SAS..	CE1P4041
Electromotive actuators for valves SAS..	Datasheet: Product description SAS..	CE1N4581
Electromotive actuators for valves SA.., Modbus RTU	Datasheet: Modbus communication profiles	A6V101037195
Mounting instructions S..6../MO and G..161../MO	Mounting instructions: Mounting and installation instructions	A5W00027551
Valve actuator DIL switch characteristic overview	Commissioning / configuration: Depictions, description of actuator and valve characteristics by DIL switch setting	A6V12050595

Related documents such as the environmental declarations, declarations of conformity, etc., can be downloaded from the following Internet address:

[www.siemens.com/bt/download](http://www.siemens.com/bt/download)

## Safety

 **CAUTION**
**National safety regulations**

Failure to comply with national safety regulations may result in personal injury and property damage.

- Observe national provisions and comply with the appropriate safety regulations.

## Engineering

**SAS31.. and SAS81..**

3-position actuators must have their own specific controller, see "Connection diagrams".

**SAS61..**

Up to 10 actuators can drive in parallel on a controller output with a rating of 1 mA.  
Modulating actuators have an input impedance of 100 kΩ.

**SAS61../MO**

The Modbus converter is dimensioned for analog control at 0..10 V.

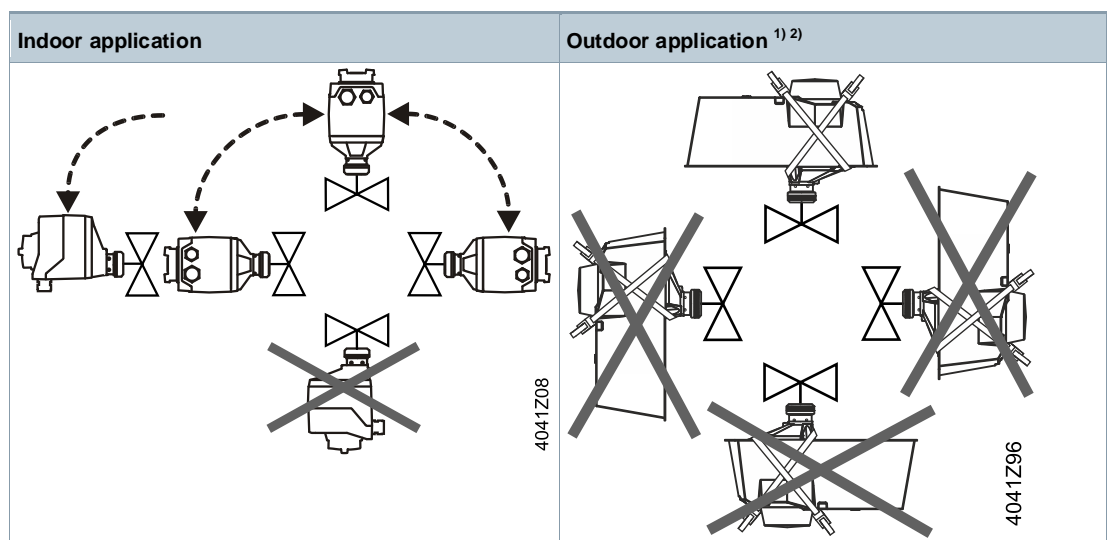
**Note:** Keep the analog signal setting on the actuator as is (switch 1 to "Off"); adjustment not possible.

The actuators are parameterized at the factory to an equal-percentage characteristic; this corresponds to their use with valves VVG/VXG44.

When using SAS61.03/MO with valve series VVG549, the following must be set:

- *Actuator:* DIL switch (internal actuator characteristic changeover) to linear (switch 2 to "ON").
- *Modbus register:* Set reg. 263 to "0 = linear".

## Installation

**Mounting positions**

1) Requires weather shield ASK39.2 Housing protection class remains IP54.

2) SAS61../MO is not intended for outdoor use.

## Maintenance

The SAS.. actuators are maintenance-free.

Actuator installation:

- Do not touch valve coupling if components (valve/piping) are hot
- If necessary, disconnect electrical connections from the terminals

Correctly fit the actuator to the valve before recommissioning.

## Disposal

### ⚠ WARNING



#### Tensioned spring return

Opening the actuator housing can trigger the fully tensioned spring return resulting in flying parts and possible injury.

- Do not open the actuator housing.



This symbol or any other national label indicate that the product, its packaging, and, where applicable, any batteries may not be disposed of as domestic waste. Delete all personal data and dispose of the item(s) at separate collection and recycling facilities in accordance with local and national legislation.

For additional details, refer to [Siemens information on disposal](#).

## Warranty

The application-specific technical data is guaranteed only in combination with the Siemens products listed in the 'Device combinations' section. If third-party products are used, any guarantee provided by Siemens will be invalidated.

## Technical data

Power supply		
Operating voltage	SAS31..	AC 230 V ± 15 %
	SAS61..	AC 24 V ± 20% / DC 24 V +20% / -15% or AC 24 V class 2 (US)
	SAS81..	AC/DC 24 V ± 20 % or AC 24 V class 2 (US)
Frequency		45...65 Hz
External supply line fusing (EU)		Fuse slow 6 A...10 A or fuse switch max. 13 A, release characteristic B,C,D as per EN 60898 power source with current limitation of max. 10 A
Typical switch-on current <sup>1)</sup> (3-Position actuators without constant power)	SAS31..	2.3A
	SAS81..	2.8A

Functional data		
Positioning time for nominal stroke	SAS..0	120 s
	SAS..3 / SAS..3U	30 s
Positioning force		400 N
Nominal stroke		5.5 mm
Permissible media temperature with valve		1...130 °C

Signal inputs		
Y1 / Y2	SAS31..., SAS81..	3-pos.
	SAS31.. Voltage	AC 230 V ± 15 %
	SAS81.. Voltage	AC 24 V ± 20% / DC 24 V + 20% / - 15%
Positioning signal "Y"	SAS61..	DC 0...10 V / DC 4...20 mA / 0...1000 Ω
	SAS61.. (DC 0...10 V) current draw	≤ 0.1 mA
	Input impedance	≥100 kΩ
	SAS61.. (DC 4...20 mA) current draw	DC 4...20 mA ± 1%
	Input impedance	≤ 500 Ω

Power consumption at 50 Hz					
Type	Item NO.	Operating [W]	Operating [VA]	Standby [W]	Standby [VA]
SAS31.00	S55158-A106	1.2	2.4	1.0	2.0
SAS31.03	S55158-A107	1.5	3.1	1.0	2.1
SAS31.50	S55158-A108	1.5	3.3	1.0	2.3
SAS31.53	S55158-A109	2.3	4.7	1.3	2.9
SAS61.03	S55158-A100	2.3	5.7	1.8	4.6
SAS61.03U	S55158-A100-A100	2.3	5.7	1.8	4.6
SAS61.03/MO	S55158-A121	2.8	6.4	2.3	6.0
SAS61.33	S55158-A101	3.0	7.2	2.2	5.5
SAS61.33U	S55158-A101-A100	3.0	7.2	2.2	5.5
SAS61.33/MO	S55158-A122	3.5	7.9	2.7	6.9
SAS61.53	S55158-A102	3.1	7.4	2.2	5.6
SAS81.00	S55158-A103	1.3	2.6	1.1	2.3
SAS81.03	S55158-A104	1.6	3.2	1.2	2.4
SAS81.03U	S55158-A104-A100	1.6	3.2	1.2	2.4
SAS81.33	S55158-A105	2.4	4.6	1.5	2.9
SAS81.33U	S55158-A105-A100	2.4	4.6	1.5	2.9

Communication SAS61../MO		
Communication protocol	Modbus RTU	RS-485, not galvanically isolated
	Number of nodes	Max. 32
	Address range	1...245 / 255 Factory setting: 255
	Transmission formats	1-8-E-1 / 1-8-O-1 / 1-8-N-1 / 1-8-N-2 Factory setting: 1-8-E-1
	Baud rates (kBaud)	Auto / 9.6 / 19.2 / 38.4 / 57.6 / 76.8 / 115.2 Factory setting: Auto
	Bus termination	120 Ω electronically switchable Factory setting: Off

Parallel connection	
SAS61..	≤ 10 (depending on controller output)

Forced control		
Z positioning signal	SAS61..	R = 0...1000 Ω, G, G0
	R = 0...1000 Ω	Stroke proportional to R
	Z connected to G	Max. stroke 100%
	Z connected to G0	Min. stroke 0%
	Voltage	Max. AC 24 V ±20% / Max. DC 24 V +20 % / -15%
	Current draw	≤ 0.1 mA

Position feedback		
U	Voltage range SAS61..	DC 0...10 V
	Load impedance	> 10 kΩ resistive
	Load	Max. 1 mA

Connection cable		
Wire cross-sectional areas		0.75...1.5 mm <sup>2</sup> , AWG 20...16 <sup>2)</sup>
Cable entries	SAS.. (EU)	1 entry Ø 16.4 mm (for M16) 1 entry Ø 20.5 mm (for M20) Thread length max. 9 mm
	SAS..U (US)	2 entries dia. 21.5 mm for ½" tube connection
	SAS61../MO	Fixed connection cable 0.9m Number of cores 5 x 0.75 mm <sup>2</sup>

Protection class		
Protection degree of housing	See Installation [▶ 7]	IP 54 as per EN 60529
Insulation class as per EN 60730	Actuators SAS31.. AC 230 V	II
	Actuators SAS61.. AC / DC 24 V	III
	Actuators SAS81.. AC / DC 24 V	III

Environmental conditions		
Operation per IEC 60721-3-3	Climatic conditions	Class 3K5
	Mounting location	Indoors, outdoors <sup>2)</sup>
	Temperature, general	-5...55 °C
	Humidity (non-condensing)	5...95 % r. h.
Transport per IEC 60721-3-2	Climatic conditions	Class 2K3
	Temperature	-25...70 °C
	Humidity	< 95 % r. h.
Storage per IEC 60721-3-1	Temperature	-15...55 °C
	Humidity	5...95 % r. h.

Standards		
Product standard		EN60730-x
Electromagnetic compatibility (field of use)		For residential, commercial and industrial environment
EU conformity (CE)		See EU declaration of conformity CE1T4581xx <sup>4)</sup> (8000073402)
UK conformity (UKCA)		See UK declaration of conformity A5W00185820A-001 <sup>4)</sup>
RCM conformity		See RCM declaration of conformity CE1T4581en_C1 <sup>4)</sup> (8000069574)
UL, cUL	AC / DC 24 V	UL 873 <a href="http://ul.com/database">http://ul.com/database</a> file number E35198
EAC compliance		Eurasien compliance for all SAS variants

Environmental compatibility
The product environmental declaration A5W02128675A <sup>4)</sup> contains data on environmentally compatible product design and assessments (RoHS compliance, material composition, packaging, environmental benefit, and disposal).

Dimensions / weight
See Dimensions [▶ 18]

Accessories <sup>5)</sup>		
Auxiliary switch ASC10.51	Switching capacity	AC 24...230 V, 6 (2) A, potential free
	External fusing of supply line	See "Power supply"
	US installation, UL & cUL	AC 24 V class 2, 5 A general purpose

1) Switching time for RMS value of the sine wave at nominal voltage

2) AWG = American wire gauge.


The planner/installer is responsible for matching wire cross sections and fuses. Standard regarding protective measures – Note protection for overcurrent:

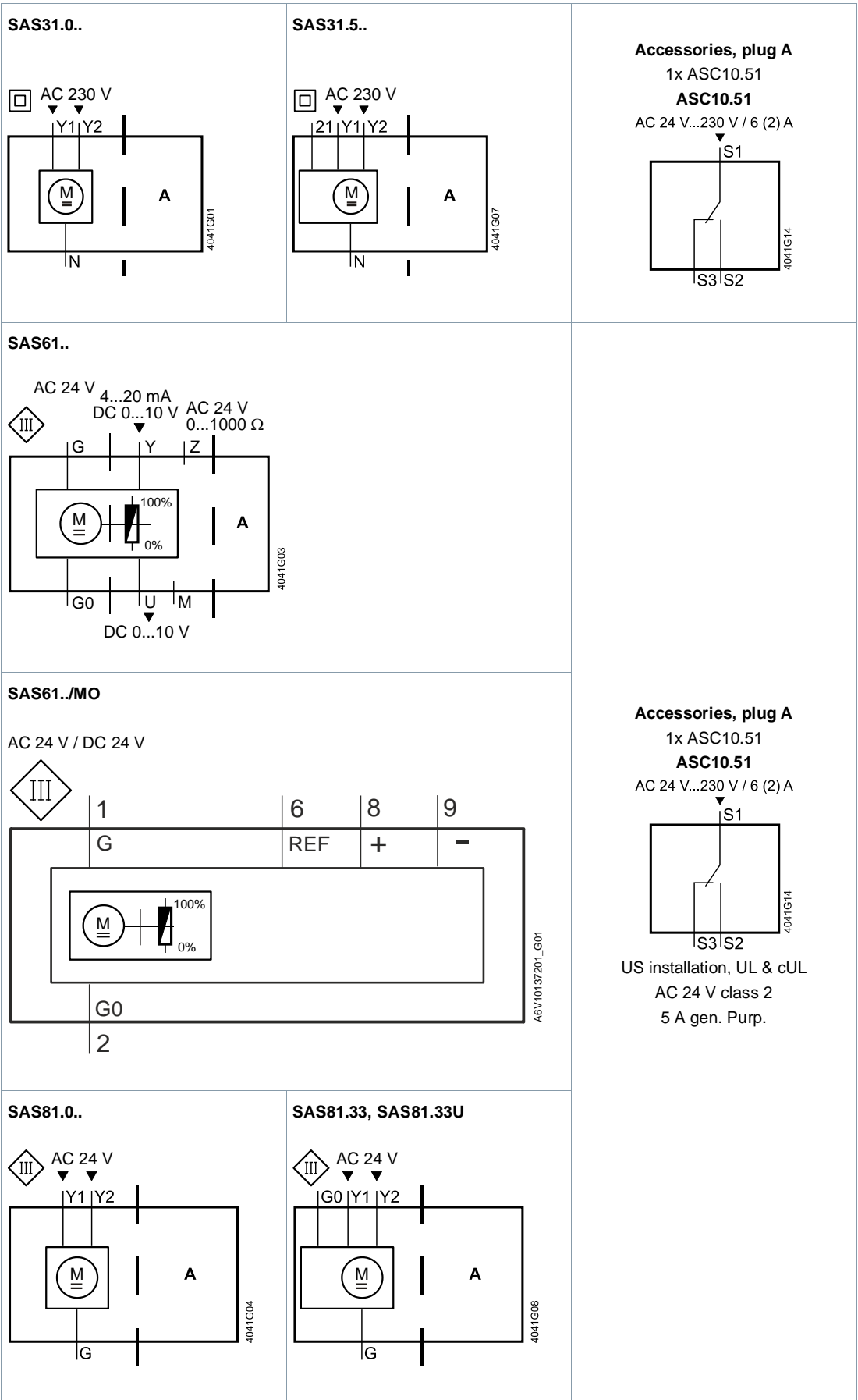
IEC 60364-4-43:2008 or German adoption HD 60364-4-43:2010.

3) For outdoor operation, always use weather shield ASK39.2, housing protection class IP 54 remains as is. SAS61../MO is not intended for outdoor use.

4) Documents can be downloaded at <http://siemens.com/bt/download>.

5)

By UL-approved component 



## Connection terminals

SAS31.0..	AC 230 V, 3-position
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 2px;">4040Z17</div> <div style="margin-bottom: 2px;">N</div> <div style="margin-bottom: 2px;">Y1</div> <div style="margin-bottom: 2px;">Y2</div> </div>	<p>System neutral (SN)</p> <p>Positioning signal (actuator's stem extends)</p> <p>Positioning signal (actuator's stem retracts)</p>

SAS31.5..	AC 230 V, 3-position
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 2px;">4041Z82</div> <div style="margin-bottom: 2px;">N</div> <div style="margin-bottom: 2px;">Y1</div> <div style="margin-bottom: 2px;">Y2</div> <div style="margin-bottom: 2px;">21</div> </div>	<p>System neutral (SN)</p> <p>Positioning signal (actuator's stem extends)</p> <p>Positioning signal (actuator's stem retracts)</p> <p>Spring return</p>

SAS61..	AC/DC 24 V, DC 0...10 V / 4...20 mA / 0...1000 Ω
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 2px;">4040Z16</div> <div style="margin-bottom: 2px;">G0</div> <div style="margin-bottom: 2px;">G</div> <div style="margin-bottom: 2px;">Y</div> <div style="margin-bottom: 2px;">M</div> <div style="margin-bottom: 2px;">U</div> <div style="margin-bottom: 2px;">Z</div> </div>	<p>System neutral (SN)</p> <p>System potential (SP)</p> <p>Positioning signal for DC 0...10 V / 4...20 mA</p> <p>Measuring neutral</p> <p>Position feedback DC 0...10 V</p> <p>Positioning signal forced control AC/DC ≤ 24 V, 0...1000 Ω</p>

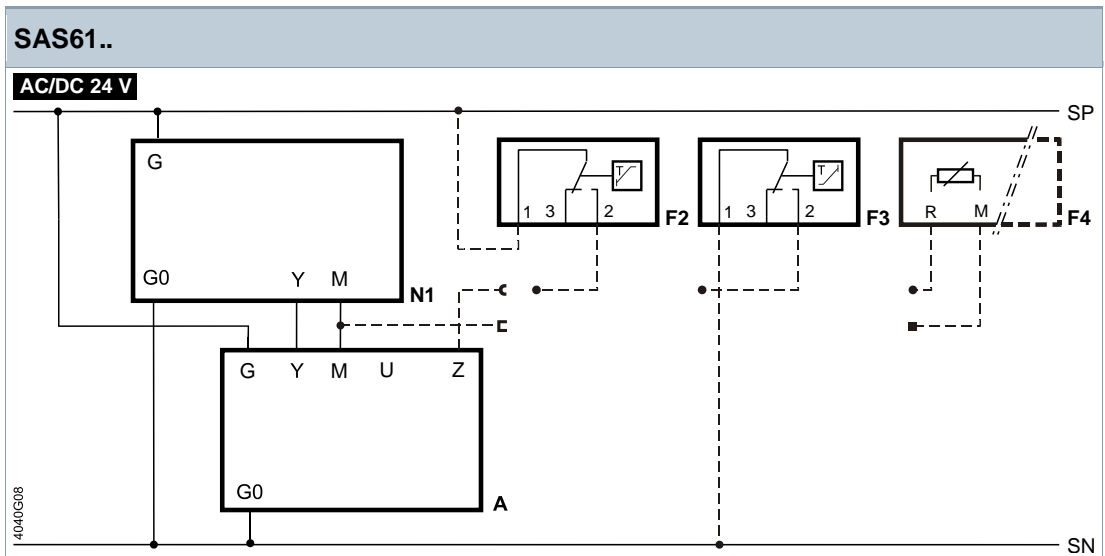
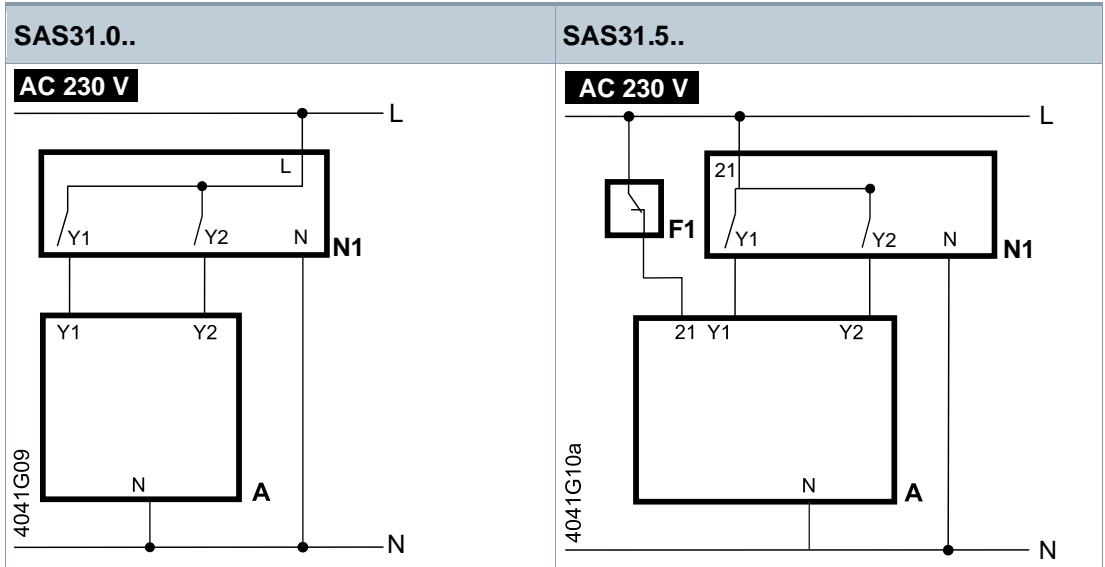
SAS61../MO	AC/DC 24 V, Modbus RTU connection cable	
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 2px;">4040Z59</div> <div style="margin-bottom: 2px;">G0</div> <div style="margin-bottom: 2px;">G</div> <div style="margin-bottom: 2px;">REF</div> <div style="margin-bottom: 2px;">+</div> <div style="margin-bottom: 2px;">-</div> </div>	<p>System neutral (SN)</p> <p>System potential (SP) AC 24 V ~ / DC 24 V =</p> <p>Reference line (Modbus RTU)</p> <p>Bus + (Modbus RTU)</p> <p>Bus - (Modbus RTU)</p>	<p>black</p> <p>red</p> <p>purple</p> <p>gray</p> <p>pink</p>

SAS81.0..	AC/DC 24 V, 3-position
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 2px;">4040Z19</div> <div style="margin-bottom: 2px;">G</div> <div style="margin-bottom: 2px;">Y1</div> <div style="margin-bottom: 2px;">Y2</div> </div>	<p>System potential (SP)</p> <p>Positioning signal (actuator's stem extends)</p> <p>Positioning signal (actuator's stem retracts)</p>

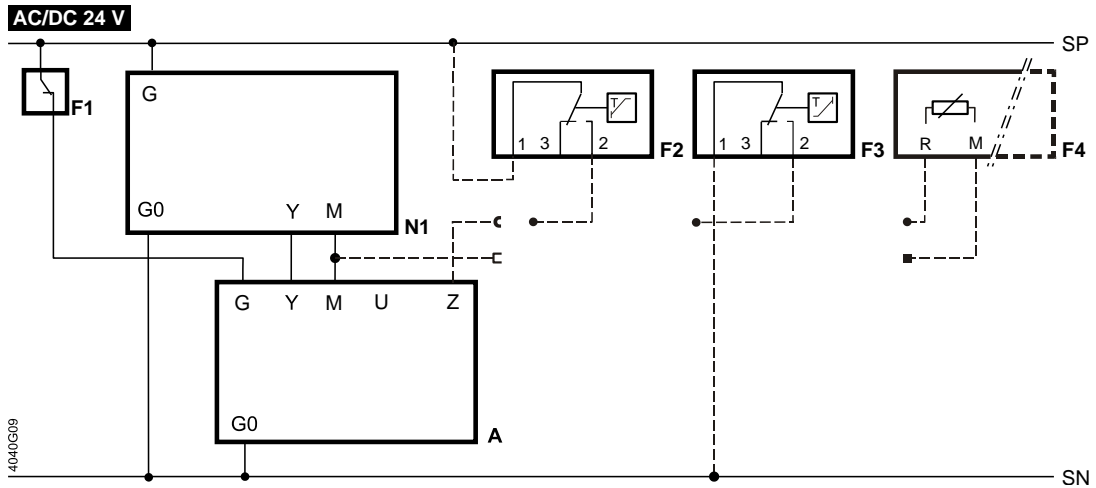
SAS81.33U	AC/DC 24 V, 3-position
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 2px;">4041Z80</div> <div style="margin-bottom: 2px;">G</div> <div style="margin-bottom: 2px;">Y1</div> <div style="margin-bottom: 2px;">Y2</div> <div style="margin-bottom: 2px;">G0</div> </div>	<p>System potential (SP)</p> <p>Positioning signal (actuator's stem extends)</p> <p>Positioning signal (actuator's stem retracts)</p> <p>System neutral (SN)</p>

Electrical accessories		
ASC10.51	Auxiliary switch, adjustable switching positions, AC 24...230 V	
	System potential (SP) Closes (actuator stem extends) Opens (actuator stem extends)	AC 24 V...230 V / 6 (2) A 

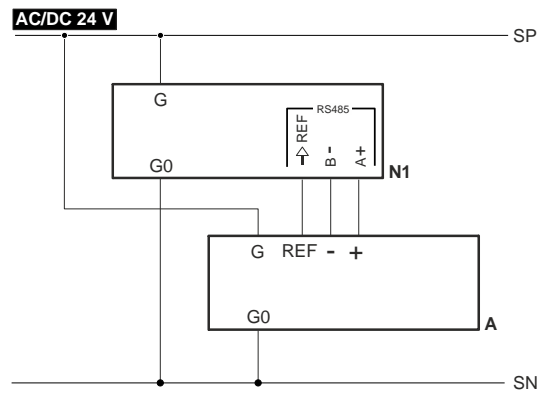
## Internal diagrams



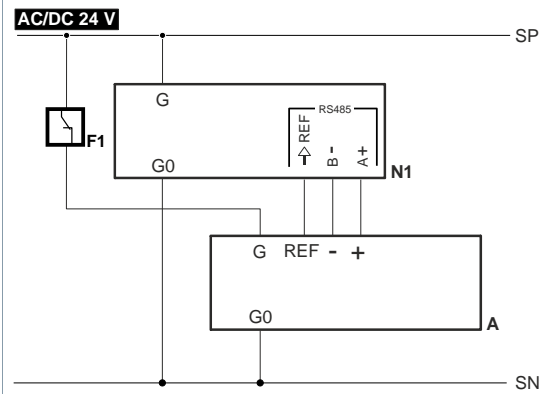
**SAS61.33 / SAS61.33U / SAS61.53**



**SAS61.03/MO**

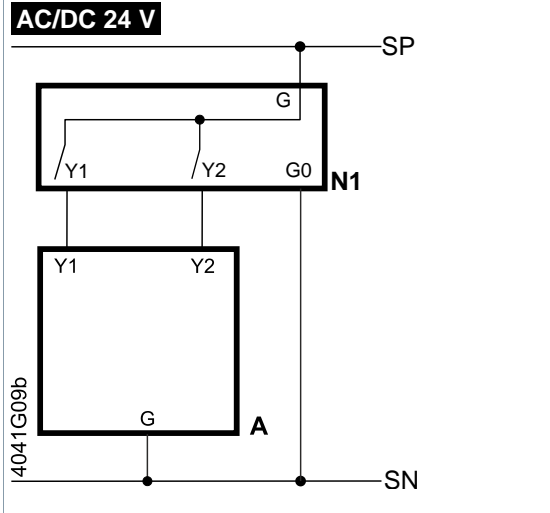
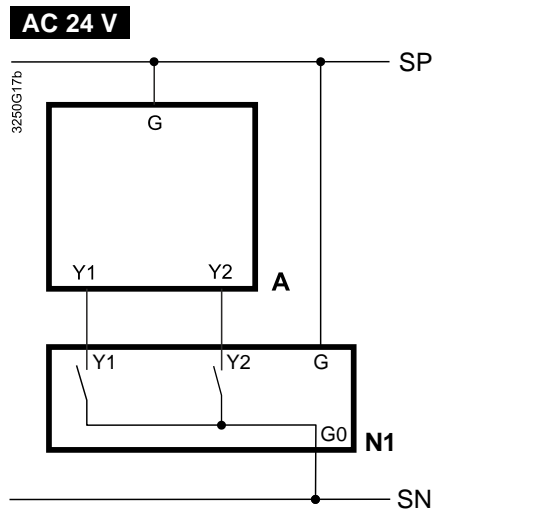


**SAS61.33/MO <sup>1)</sup>**

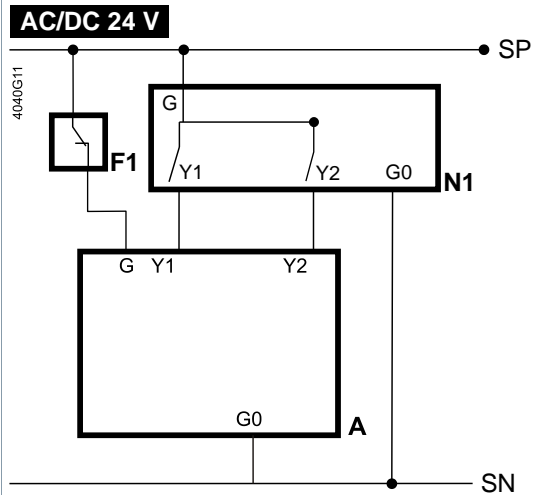


<sup>1)</sup> The actuator can no longer be addressed via the bus once the limit thermostat is triggered.

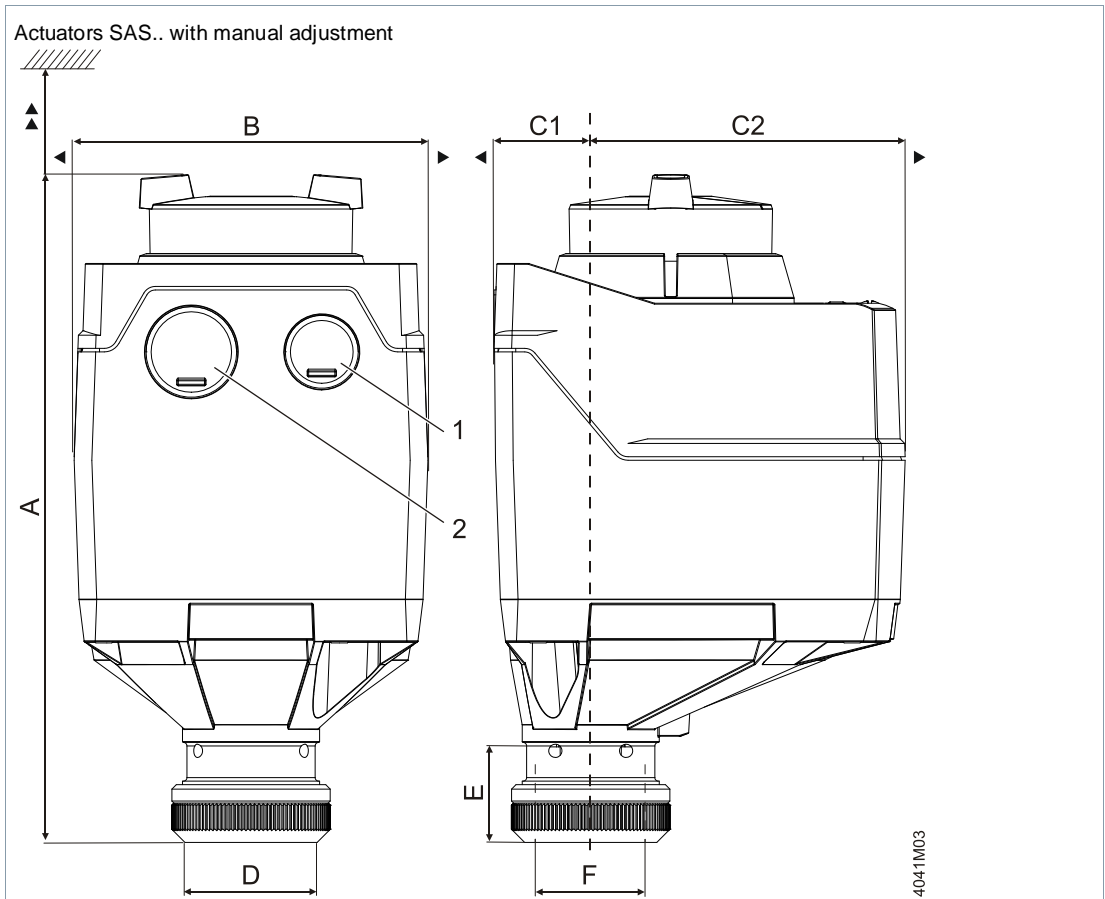
**SAS81.0..**



## SAS81.33, SAS81.33U



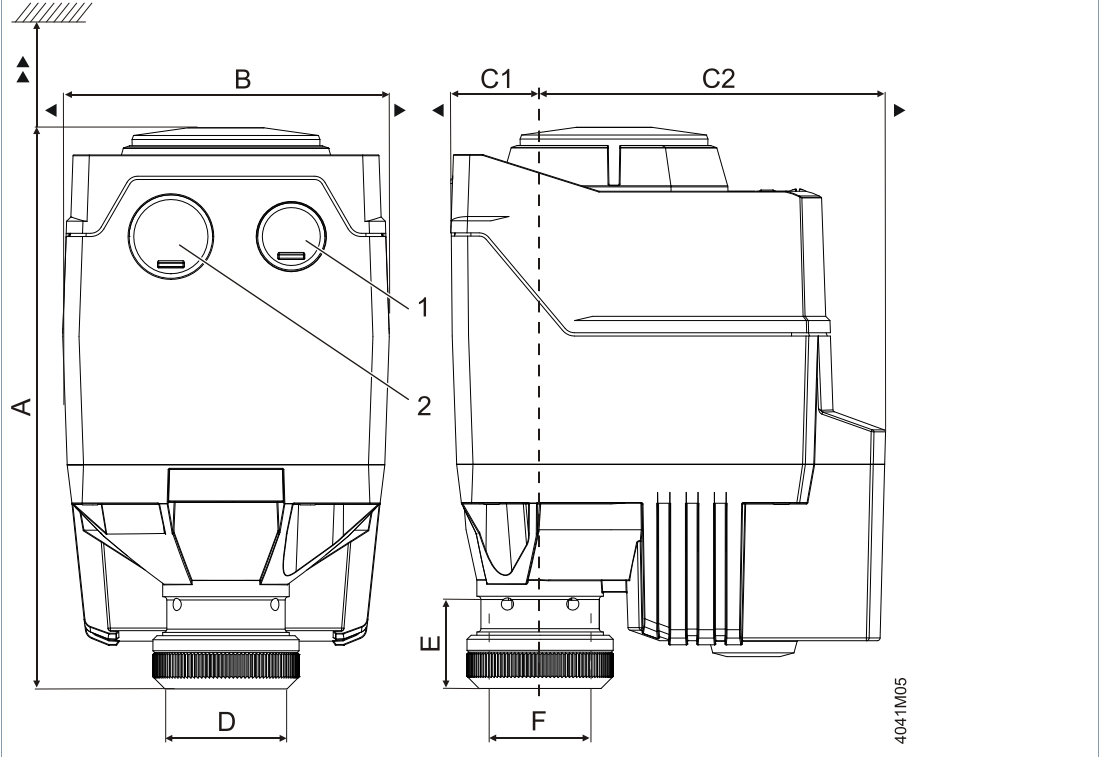
A	Actuator	REF	Reference line (Modbus RTU)
F1	Temperature limiter	SN	System neutral
F2	Frost protection thermostat; terminals: 1 – 2 Frost hazard / sensor is Off (thermostat closes upon frost) 1 – 3 normal operation	SP	System potential AC/DC 24 V
F3	Thermal reset limit thermostat	U	Position feedback
F4	Frost protection monitor with 0...1000 Ω signal output, does <b>NOT</b> support QAF21.. or QAF61..	Y	Positioning signal
G	System potential (SP)	Y1, Y2	Positioning signals
G0	System neutral (SN)	Z	Positioning signal forced control
L	Phase	21	Spring return
M	Measuring neutral	+	Bus + (Modbus RTU)
N	Neutral	-	Bus - (Modbus RTU)
N1	Controller		



Type	A [mm]	B [mm]	C [mm]	C1 [mm]	C2 [mm]	D [mm]	E [mm]	F [inch]	▶ [mm]	▶▶ [mm]	kg [kg]	1	2
SAS..											0.40		
SAS../MO <sup>2)</sup>	151	80	93	21.9	71.1	29.9	21.8	G ¾	100	200	0.55	M16 <sup>1) 3)</sup>	M20 <sup>1) 3)</sup>
With ASK39.2	155	126	248	99	149						0.55		

- <sup>1)</sup> SAS..U: ½" (dia. 21.5 mm)
- <sup>2)</sup> Device has a fixed connection cable – left cable entry occupied
- <sup>3)</sup> Tread length max. 9 mm

Actuators SAS.. without manual adjustment



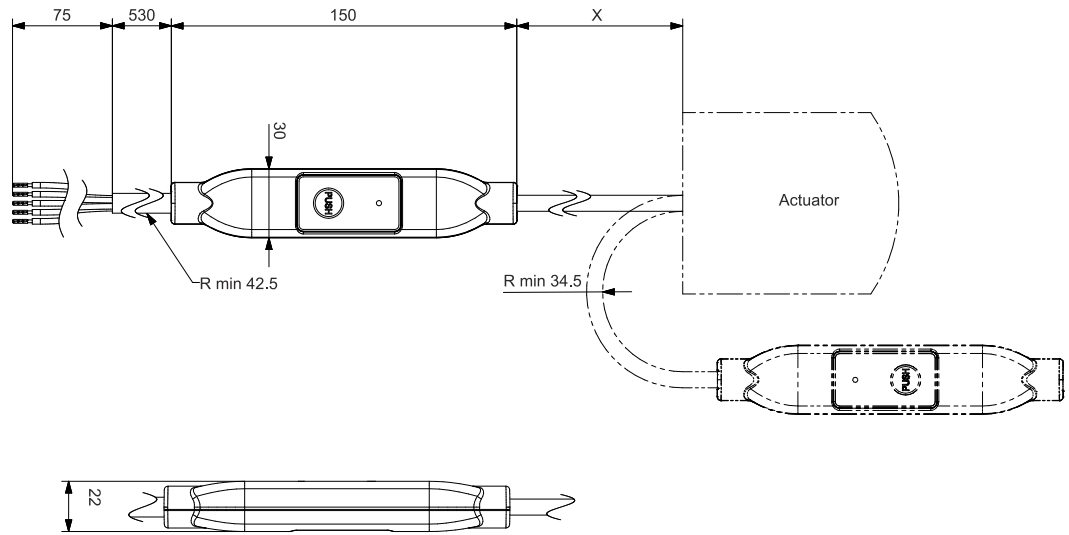
Type	A [mm]	B [mm]	C [mm]	C1 [mm]	C2 [mm]	D [mm]	E [mm]	F [inch]	▶ [mm]	▶▶ [mm]	kg [kg]	1	2
<b>SAS..</b>	137.6 <sup>1)</sup> 151 <sup>2)</sup>	80	106.5	21.9	84.6						0.68		
<b>With ASK39.2</b>	155	126	248	99	149	29.9	21.8	G 3/4	100	200	0.83	M16 <sup>3)</sup>	M20 <sup>3)</sup>

1) Black cover

2) Blue handwheel

3) Tread length max. 9 mm

External Modbus converter



Type	X [mm]	kg [kg]
SAS../M O	250	0.15 <sup>1)</sup>

<sup>1)</sup> Included in total weight

Dimensions in mm

## Revision numbers

Type	Valid from rev. no.
SAS31.00	..B
SAS31.03	..B
SAS31.50	..B
SAS31.53	..B
SAS61.03	..B
SAS61.03U	..B
SAS61.03/MO	..B
SAS61.33	..B
SAS61.33U	..B
SAS61.33/MO	..A
SAS61.53	..B
SAS81.00	..B
SAS81.03	..B
SAS81.03U	..B
SAS81.33	..B
SAS81.33U	..B

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Edition        2024-08-27



# CERTIFICATE

Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of

**SAMSON AKTIENGESELLSCHAFT**

Weismüllerstr. 3, 60314 Frankfurt am Main, Germany

This is a multi-site certificate, additional site(s) are listed on the next page(s)

has been audited and found to be in accordance with the requirements of the management system standards detailed below

**ISO 9001:2015**

## Scope of certification:

Development, manufacturing, testing and distribution of components and systems for controlling and regulating of media: valves, controllers, actuators, sensors, thermostats and automation systems (EA19A)

Certificate number:

**DE016573**

Original certification date:  
19-June-1990

Expiry date of previous cycle:  
20-January-2027

Recertification Audit date:  
18-November-2025

Current cycle start date:  
08-December-2025

Expiry date:  
07-December-2028

Version: 1

Issue Date:  
08-December-2025

Signed on behalf of BVCH SAS UK Branch



0008

Certification body address: 5th Floor, 100 Lower Thames Street, London, EC3R 6DL, United Kingdom

Local office: Willy-Brandt-Straße 55 D-20457 Hamburg



To check this certificate validity please call: +49 - (0)40 2362 5701

# CERTIFICATE

**SAMSON AKTIENGESELLSCHAFT**

**ISO 9001:2015**

*Scope of Certification:*

Site Name	Site Address	Site Scope
SAMSON AKTIENGESELLSCHAFT	Weismüllerstr. 3, 60314 Frankfurt am Main, Germany	Development, manufacturing, testing and distribution of components and systems for controlling and regulating of media: valves, controllers, actuators, sensors, thermostats and automation systems (EA19A)
SAMSON AKTIENGESELLSCHAFT	Zum Hart 9, 35315 Homberg (OHM), Germany	
SAMSON AKTIENGESELLSCHAFT	Betriebsstätte Kettelerstraße 99, 63075 Offenbach am Main, Germany	

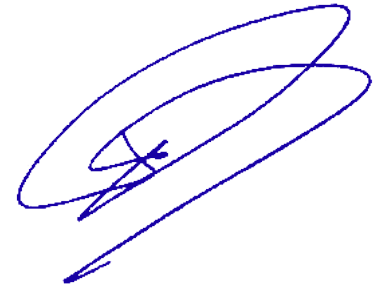
*Certificate number:*

**DE016573**

*Version:* 1

*Issue Date:*

**08-December-2025**



*Signed on behalf of BVCH SAS UK Branch*



0008

*Certification body address: 5th Floor, 100 Lower Thames Street, London, EC3R 6DL, United Kingdom*

*Local office: Willy-Brandt-Straße 55 D-20457 Hamburg*



To check this certificate validity please call: +49 - (0)40 2362 5701



Translation

(1) **Production Quality Assurance Notification**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Notification Number: TÜV 97 ATEX 1189 Q**

(4) Product category: p/i- and i/p-Converters, Pressure Transmitters, Positioners, Field Barriers, Limit Switches, e/p-Binary Transmitter, Solenoid Valves, Flow Meters, Position Transmitters

Protective principle :  
Flameproof enclosures „d“  
Intrinsic safety „i“  
Increased safety „e“  
Protection by enclosures „t“

(5) Applicant: **SAMSON AKTIENGESELLSCHAFT**  
Weismüllerstrasse 3, 60314 Frankfurt, Germany

(6) Manufacturer: **see applicant**

Manufacturing location: **SAMSON AKTIENGESELLSCHAFT**  
Site 1: Weissmüllerstraße 3, 60314 Frankfurt, Germany  
Site 2: Kettelerstraße 99, 63075 Offenbach am Main, Germany  
**SAMSON REGULATION S.A.S.**  
1 rue Jean Corona, 69120 Vaulx-en-Velin, France

Order number: 8003088934

Date of issue: See signature First certification: 1997-06-10

Valid to: 2027-06-10

(7) The TÜV NORD CERT GmbH, notified body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, notifies the applicant that the manufacturer has a production quality system which complies with Annex IV of the Directive.

(8) This notification is based on audit report No. 25 202 404824 issued 2026-01-09. This notification can be withdrawn if the manufacturer no longer satisfies to the requirements of Annex IV. Results of periodical production quality reassessments are a part of this notification.

(9) In accordance with Article 16 (3) of the Directive 2014/34/EU the CE marking shall be followed by the identification number 0044 of the notified body TÜV NORD CERT GmbH.

The notified body maintains a list of EU-Type-Examination Certificates resp. EC-Type-Examination Certificates to which this notification applies.

TÜV NORD CERT GmbH, Am TÜV 1, 45307 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The deputy head of the notified body

 Digital unterschrieben  
von Drews Anke  
Datum: 2026.01.09  
17:07:14 +01'00'

Hanover office, Am TÜV 1, 30519 Hannover, Tel. +49 511 998-61455, Fax +49 511 998-61590

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## T 2628 EN

### Type 44-0 B Steam Pressure Reducing Valve

Series 44 Self-operated Pressure Regulators



#### Application

Set points from **0.2 to 20 bar** · Valves **G ½**, **G ¾** and **G 1** as well as **DN 15, 25, 40** and **50** · Pressure rating **PN 25** · Suitable for steam up to **200 °C**

The valve **closes** when the **downstream** pressure rises.

The regulators consist of a valve and an integrated actuator with an operating bellows and a set point adjuster.

#### Special features

- Low-maintenance proportional regulators requiring no auxiliary energy
- Wide set point range and convenient set point adjustment
- Spring-loaded, single-seated valve without pressure balancing or plug balanced by a bellows
- Stainless steel operating bellows as operating element
- Compact design with particularly low overall height
- Valve body made of red brass, spheroidal graphite iron or stainless steel

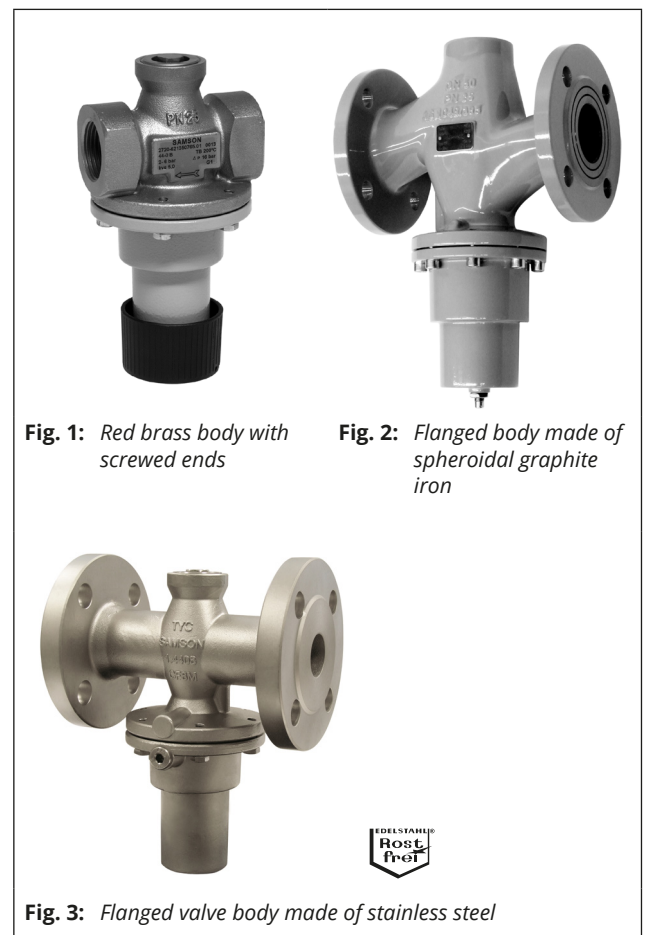
#### Versions

Pressure regulators for set point ranges from 0.2 to 20 bar and valve body with female thread or flanged connections

**Type 44-0 B Pressure Reducing Valve** · Regulators with PN 25 valve suitable for steam up to 200 °C · Red brass or stainless steel body with screwed ends G ½, G ¾ and G 1 female thread (Fig. 1) · Stainless steel flanged body DN 15 and 25 (Fig. 3) · Spheroidal graphite iron flanged body DN 15, 25, 40 and 50 (Fig. 2)

#### Special versions

- Regulator prepared for pressure gauge or external control line connection (connecting thread G ½)
- Version with electric set point adjustment (up to G 1 or DN 25) for set points up to 10 bar
- Version with pneumatic set point adjuster (up to G 1 or DN 25)
- Version as differential pressure regulator (up to G 1 or DN 25)



**Fig. 1:** Red brass body with screwed ends

**Fig. 2:** Flanged body made of spheroidal graphite iron

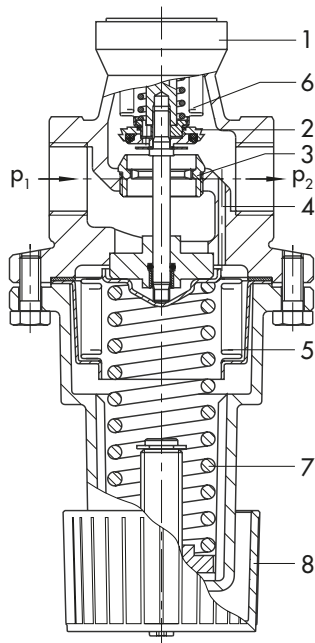
**Fig. 3:** Flanged valve body made of stainless steel

**Principle of operation** (see Fig. 4)

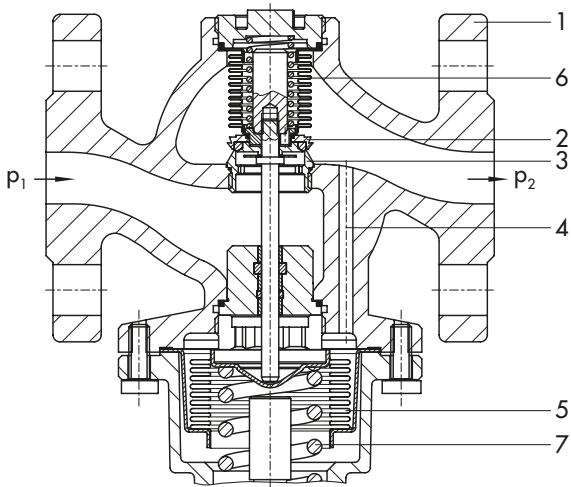
The medium flows through the valve in the direction indicated by the arrow. The position of the plug determines the flow rate across the area released between plug (2) and valve seat (3).

The Type 44-0 B Steam Pressure Reducing Valve is open when relieved of pressure. The valve closes when the downstream pressure ( $p_2$ ) rises above the adjusted set point.

The pressure to be kept constant is transmitted through a borehole (4) in the valve body (1) to the operating bellows (5) where it is converted into a positioning force. It moves the valve plug depending on the spring rate of the set point springs (7) and the set point adjuster (8) or set point adjusting screw (9) (8 to 20 bar set point range and for version with stainless steel or spheroidal graphite iron body in DN 40/50).

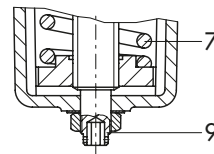


Type 44-0 B Pressure Reducing Valve · Body with screwed ends (female thread)



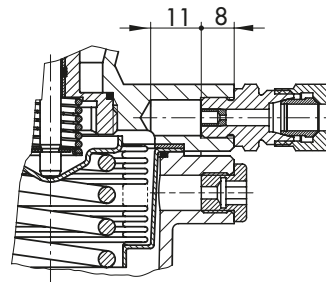
Type 44-0 B Pressure Reducing Valve · Flanged body made of spheroidal graphite iron

**Fig. 4:** Functional diagram



**Set point adjustment at hexagonal socket head screw**

Stainless steel/spheroidal graphite iron version (DN 40/50 only) and 8 to 20 bar set point range



**Special version in stainless steel**

Connecting thread G 1/8 A for a pressure gauge or external control line · Dimensions in mm

- |                                 |                                  |
|---------------------------------|----------------------------------|
| 1 Valve body                    | 6 Balancing bellows              |
| 2 Plug                          | 7 Set point spring               |
| 3 Seat                          | 8 Set point adjuster (handwheel) |
| 4 Borehole for control pressure | 9 Set point screw                |
| 5 Operating bellows             |                                  |

**Table 1: Technical data · All pressures in bar (gauge)**

Type 44-0 B Steam Pressure Reducing Valve		
Connection	Stainless steel/red brass body	Female thread G ½, G ¾, G 1
	Stainless steel body	Flanges DN 15 and 25
	Spheroidal graphite iron body	Flanges DN 15, 25, 40 and 50
Pressure rating		PN 25
Max. permissible temperature		200 °C
Max. perm. differential pressure Δp	G ½, G ¾, G 1 · DN 15, DN 25	10 <sup>1)</sup> · 16 bar
	DN 40 and 50	8 bar
Leakage class according to IEC 60534-4		≤0.05 % of K <sub>V5</sub> coefficient
Conformity		<b>CE</b>
Set point range (continuously adjustable)		0.2 to 2 bar · 1 to 4 bar · 2 to 6 bar · 4 to 10 bar · 8 to 20 bar <sup>2)</sup>
Max. permissible ambient temperature		60 °C

<sup>1)</sup> With K<sub>V5</sub> 1.0, 1.6, 2.0 and 2.5

<sup>2)</sup> Set point range **not** for DN 40 and 50

**Table 2: K<sub>V5</sub> coefficients**

Thread size · Screwed ends		G ½	G ¾	G 1	
K <sub>V5</sub> coefficients <sup>1)</sup>	Standard version	1.6 <sup>2)</sup> · 3.2 <sup>3)</sup>	2.0 <sup>2)</sup> · 4.0 <sup>3)</sup>	2.5 <sup>2)</sup> · 5.0 <sup>3)</sup>	
	Special version	1.0 <sup>3)</sup>			
Nominal size (flange)		DN 15	DN 25	DN 40	DN 50
K <sub>V5</sub> coefficients	Standard version	1.6 <sup>1)2)</sup> · 3.2 <sup>3)</sup>	2.5 <sup>1)2)</sup> · 5.0 <sup>3)</sup>	16.0 <sup>3)</sup>	20.0 <sup>3)</sup>
	Special version <sup>1)</sup>	1.0 <sup>3)</sup>		8.0 <sup>2)</sup>	

<sup>1)</sup> Unbalanced

<sup>2)</sup> Metal seal

<sup>3)</sup> Soft seal. Seal material: PTFE

**Table 3: Materials · Material numbers according to DIN EN**

Body	Red brass CC499K	Spheroidal graphite iron EN-GJS-400-18-LT	Stainless steel 1.4408
Seat	1.4305		1.4404
Plug	Brass (resistant to dezincification) with PTFE soft seal or metal seal (1.4404)		1.4404 with PTFE soft seal
Balancing bellows	1.4571		
Plug spring	1.4310		
Set point spring	1.7104 (55SiCr6)		1.4310
Operating bellows	1.4571		
Spring housing	EN AC-44300-DF (die-cast aluminum)		1.4408
Set point adjuster	Manual adjuster made of PTFE with 30 % glass fiber <sup>1)</sup>		Hexagonal socket head screw made of 1.4571

<sup>1)</sup> 8 to 20 bar set point range: hexagonal socket head screw made of 1.4571

**Table 4: Dimensions and weights · Regulators with body with screwed ends**

**Red brass CC499K · Stainless steel 1.4408**

Thread size · Screwed ends		G ½	G ¾	G 1
Female thread G		½"	¾"	1"
Overall length L		65 mm	75 mm	90 mm
Width across flats (A/F)		34 mm		46 mm
Height H1 <sup>2)</sup>	Red brass CC499K	132 mm · 199 mm <sup>1)</sup>		
	Stainless steel 1.4408	155 mm · 222 mm <sup>1)</sup>		
Height H2	Red brass CC499K	48 mm		
	Stainless steel 1.4408	46 mm		
ØD		89 mm		
Weight, approx.		1.0 kg	1.1 kg	1.5 kg

<sup>1)</sup> Dimensions for regulators with 8 to 20 bar set point range or stainless steel body; set point adjustment at hexagonal socket head screw

<sup>2)</sup> + min. 50 mm distance for set point adjustment

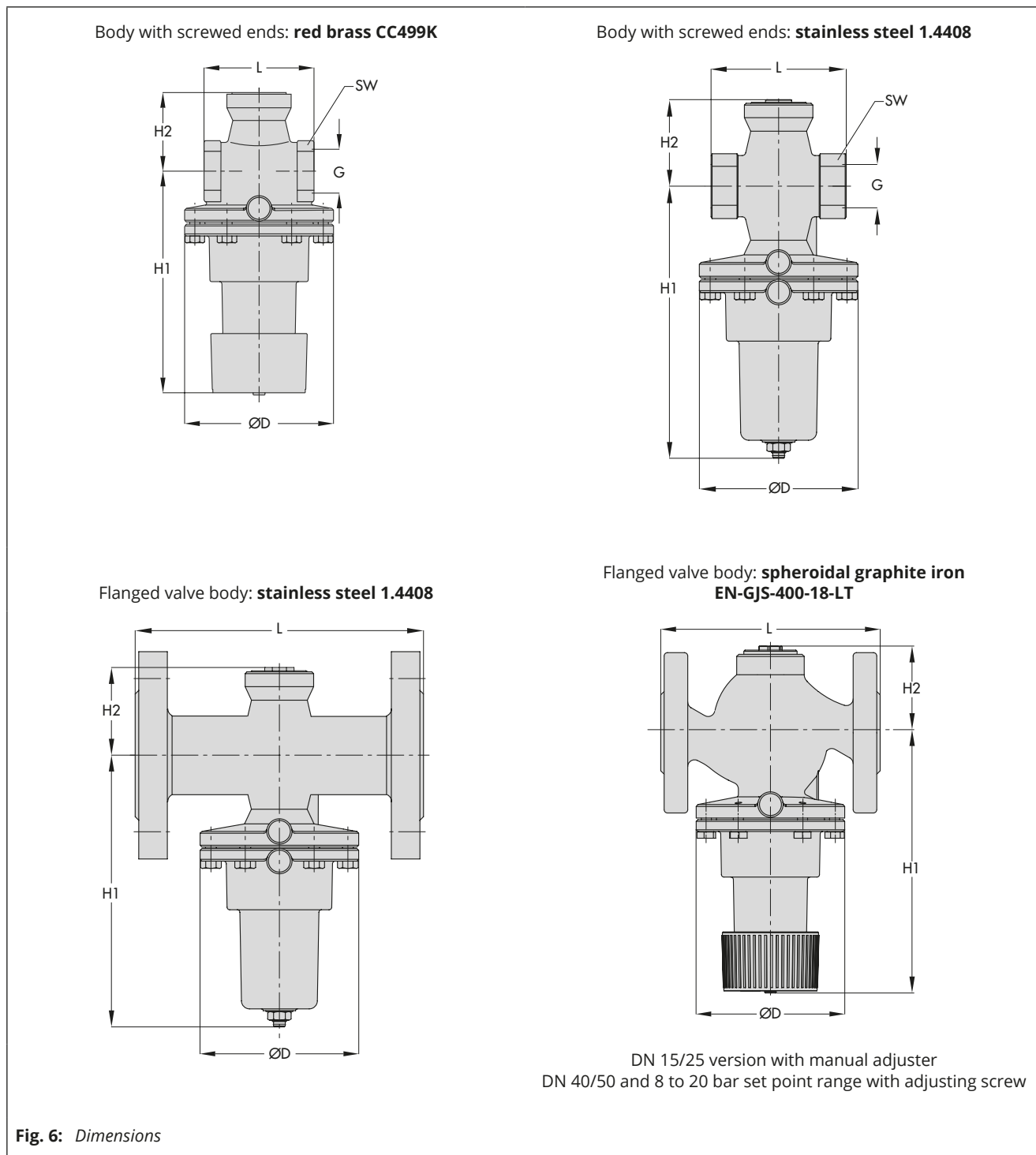
**Table 5: Dimensions and weights · Regulators with flanged valve body**

**Spheroidal graphite iron EN-GJS-400-18-LT · Stainless steel 1.4408**

Nominal size (flange)	DN 15	DN 25	DN 40	DN 50
Overall length L	130 mm	160 mm	200 mm	230 mm
Height H1 <sup>1)</sup>	155 mm		245 mm	
Height H2	46 mm		95 mm	
ØD	89 mm			
Weight, approx.	2.6 kg	4.2 kg	7 kg	8 kg

<sup>1)</sup> + min. 50 mm distance for set point adjustment

**Dimensions of the regulators in mm**



**Fig. 6: Dimensions**

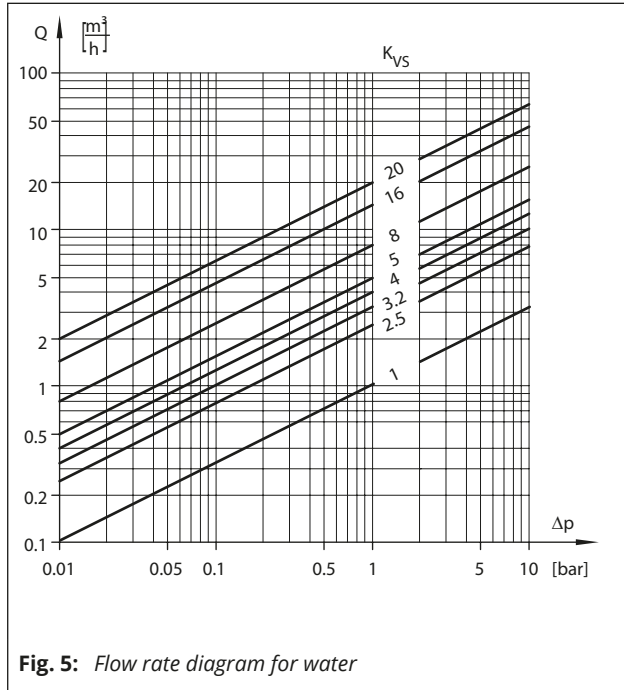
## Installation

The following applies:

- The direction of flow must match the direction indicated by the arrow on the body.
- Install the valve in horizontal pipelines with the actuator housing suspended downward (set point adjuster facing down)

Further details can be found in ► EB 2626-1.

## Flow rate diagram for water



## Ordering text

### Type 44-0 B Steam Pressure Reducing Valve

Body material: red brass, stainless steel or spheroidal graphite iron

Version with screwed ends G ... or flanged valve body DN ...

Set point range ... bar

$K_{VS}$  coefficient ...

Optionally, special version

### Sizing the Type 44-0 B Steam Pressure Reducing Valve

To size the Type 44-0 B Steam Pressure Reducing Valve, the steam charts (sizing characteristics with valve characteristics) for saturated steam are provided.

This chart together with the additional specifications on the upstream pressure  $p_1$ , downstream pressure  $p_2$  and the required steam flow rate can be used to find the right valve for the Type 44-0 B Regulator using the valve characteristics in the graph.

To find the right valve, observe the diagrams on flow velocity (Fig. 7) and valve load (Fig. 8)

Select the largest of the determined values as the nominal size for the Type 44-0 B Regulator.

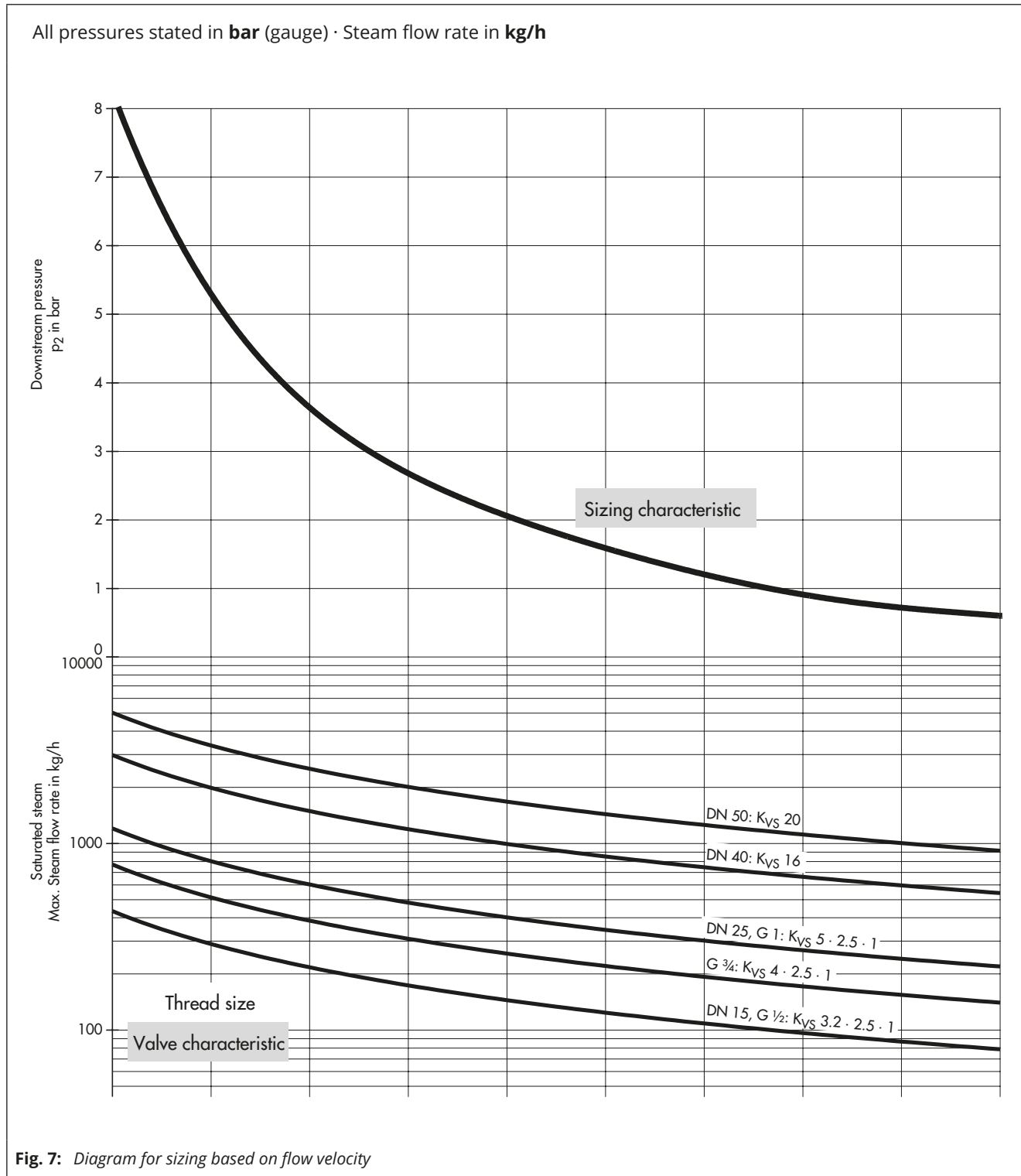


Fig. 7: Diagram for sizing based on flow velocity

All pressures stated in **bar** (gauge) · Steam flow rate in **kg/h**

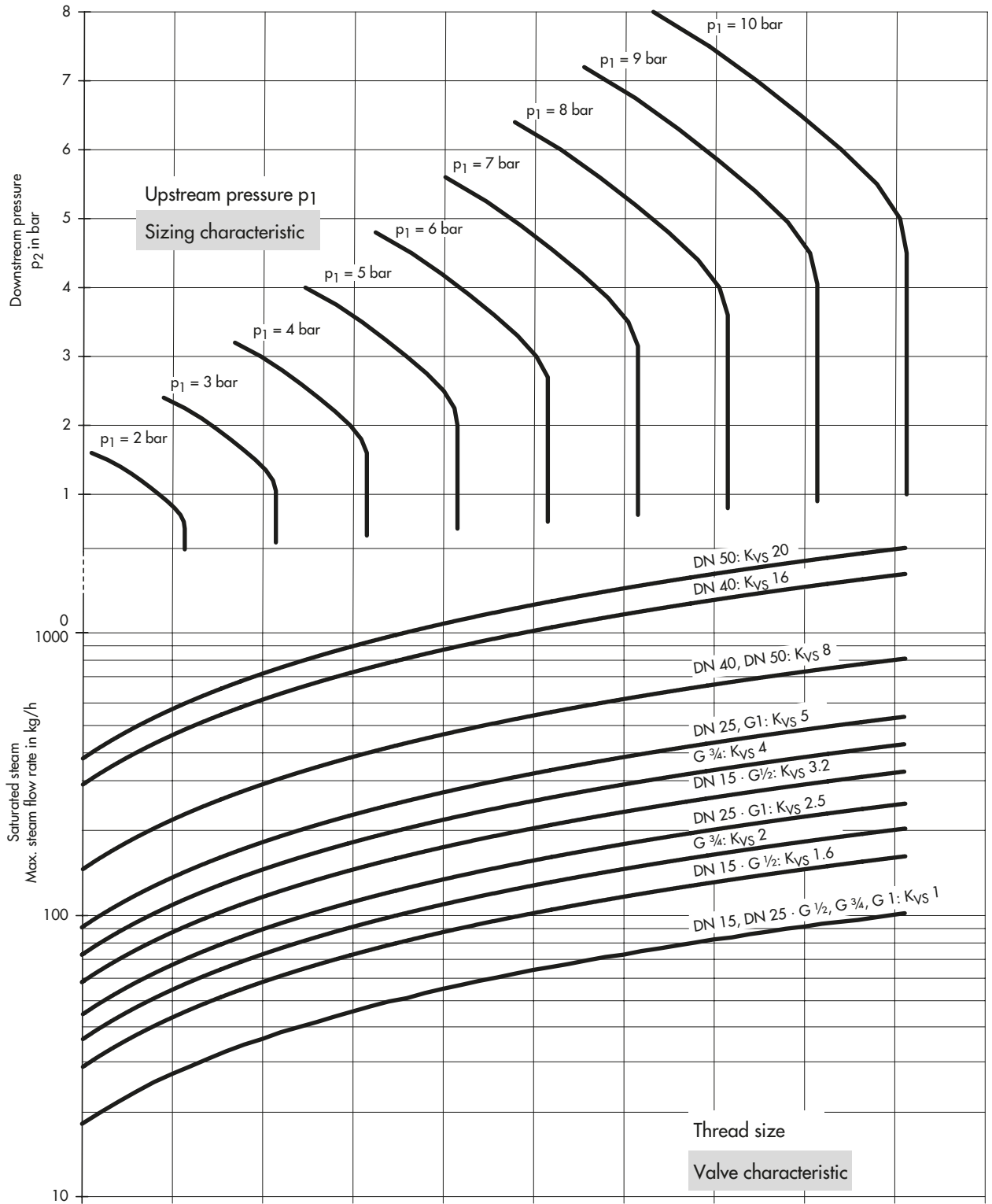


Fig. 8: Diagram for sizing based on valve load



## T 5220 EN

### Types 5207 to 5277 Temperature Sensors with Pt 1000 resistors

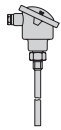
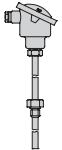
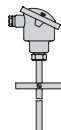
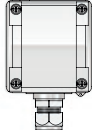



#### Application

Measurement of temperatures in HVAC systems.




Versions with Pt 1000 resistors. Basic values according to Class B of DIN EN 60751.

**Table 1:** Screw-in, duct, contact and outdoor sensors with Pt 1000 resistors

Screw-in sensor	•	•	•	•	•	•			
Duct sensor							•		
Contact sensor								•	
Outdoor sensor									•
Number of resistors	1	1	1	1	1	1	1	1	1
Pt 1000 resistors	See Table 5								
Sensor length mm	80	160	250	160	250	400	60 ... 280		–
Sensor shaft G ½ made of <sup>1)</sup>	Brass			1.4571			Nickel-plated brass		–
Pressure rating PN	16			40					–
Permissible temperatures									
Medium °C	–20 to +150			–60 to +400			–20 to +150	–50 to +120	
Ambient °C	–20 to +70			–20 to +70			–20 to +70	–50 to +100	–50 to +90
Degree of protection acc. to EN 60529 IP	54			54			41	65	43
Weight (approx.) kg	0.4	0.4	0.5	0.4	0.5	0.6	0.6	0.04	0.04
Conformity	<b>CE EAC</b>								
<b>Type</b>	<b>5207-21</b>	<b>5207-27</b>	<b>5207-26</b>	<b>5207-47</b>	<b>5207-46</b>	<b>5207-48</b>	<b>5217</b>	<b>5267-3</b>	<b>5227-4</b>
Style									
Preferable scope of application	Flow or return flow pipes, DHW applications, heating systems						Supply air, mixed air, exhaust air (non-corrosive air and gases)	Flow or return flow pipes	Exterior walls of buildings

<sup>1)</sup> Flange connection with duct sensors instead of G ½

**Table 2: Room sensors with Pt 1000 resistors**


Room sensor		•	•	•
with potentiometer and mode selector switch			•	•
Number of Pt 1000 resistors		1	1	1
Resistance values		See Table 5		
Permissible temperatures				
Ambient °C		-35 to +70	-35 to +70	-35 to +70
Degree of protection acc. to EN 60529 IP		30	30	30
Weight kg (approx.)		0.05	0.07	0.07
Conformity		<b>CE EAC</b>		
<b>Type</b>		<b>5257-11</b>	<b>5257-51</b>	<b>5257-71</b>
Style				
Preferable site of installation		Recreation rooms and offices		

**Table 3: Application range of room sensors**

	5257-11	5257-51	5257-71
<b>Controllers for HVAC systems</b>			
TROVIS 5573	•	•	
TROVIS 5573-1	•	•	
TROVIS 5575	•	•	
TROVIS 5576	•	•	
TROVIS 5578	•	•	
TROVIS 5578-E	•	•	
TROVIS 5579	•	•	
TROVIS 5430 <sup>1)</sup>	•	•	
TROVIS 5431 <sup>1)</sup>	•	•	
TROVIS 5432 <sup>1)</sup>	•	•	
TROVIS 5433 <sup>1)</sup>	•	•	
TROVIS 5475-2 <sup>1)</sup>	•	•	
TROVIS 5476 <sup>1)</sup>	•	•	
TROVIS 5479 <sup>1)</sup>	•	•	
TROVIS 5571 (PLC) <sup>1)</sup>	•	•	
<b>Electric actuators with process controllers</b>			
TROVIS 5757-7			•
TROVIS 5725-7 <sup>1)</sup>			•

<sup>1)</sup> No longer available

**Table 4:** Immersion sensors with Pt 1000 resistors (can also be used as contact sensors)<sup>1)</sup>

Immersion sensor with thermowell/ contact sensor	•		
Number of Pt 1000 resistors	1		
Resistance values	See Table 5		
Sensor length                      mm	50		
Permissible temperatures			
Medium                              °C	-50 to +180		
Ambient                             °C	-50 to +180		
Degree of protection acc. to EN 60529                              IP	67		
Weight                                      kg (approx.)	0.065	0.101	0.165
Connecting cable length                m	2	3	5
Conformity	<b>CE EAC</b>		
<b>Type</b>	<b>5277-21</b>	<b>5277-31</b>	<b>5277-51</b>
Style			
Preferable scope of application	Immersion sensor with connecting cable, thermowell required Flow or return flow temperature measurement, DHW applications, heating systems		

<sup>1)</sup> **Accessories for Types 5277-21/-31/-51**- **Brass thermowell, G ½, PN 16**

Immersion length 80 mm

Order no. 1099-0807

Immersion length 160 mm

Order no. 8525-5005

- **Thermowell CrNiMo, G ½, PN 40**

Immersion length 80 mm

Order no. 1099-0805

Immersion length 160 mm

Order no. 8525-5011

Immersion length 250 mm

Order no. 1099-0806

- **Mounting kit**

To use an immersion sensor as a contact sensor

Material no.: 100000722

**i Note**

It is not necessary to calibrate the line with temperature sensors with Pt 1000 resistors. In cases where the length of line between sensor and controller exceeds 100 m, the cross-section of the wire must be at least 1.5 mm<sup>2</sup>. Route the sensor lines and other supply voltage lines separately.

The Type 5267-3 Contact Sensor is suitable for pipes with up to 60 mm diameter. On assembly, the supplied heat-conducting paste must be applied between the sensor (copper protective tube) and the pipe.

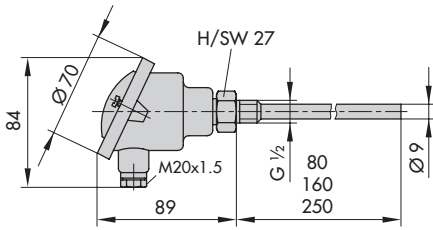
The maximum permissible wire cross-section is 1.5 mm<sup>2</sup> for terminals for sensors (Types 5227-4, 5257-xx and 5267-3).

**Table 5:** Resistance values for Types 5207 to 5277 Sensors with Pt 1000 resistors

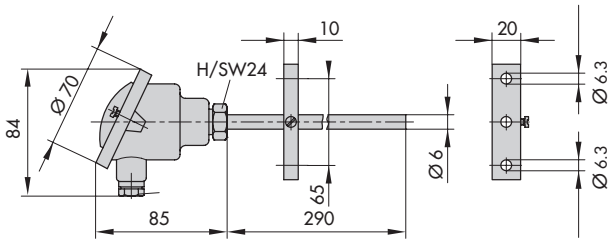
Temperature °C	-35	-30	-25	-20	-15	-10	-5	0	+5	+10	+15	+20
Resistance Ω	862.5	882.2	901.9	921.6	941.2	960.9	980.4	1000.0	1019.5	1039.0	1058.5	1077.9
Temperature °C	+25	+30	+35	+40	+45	+50	+55	+60	+65	+70	+75	+80
Resistance Ω	1097.3	1116.7	1136.1	1155.4	1174.7	1194.0	1213.2	1232.4	1251.6	1270.8	1289.9	1308.9
Temperature °C	+85	+90	+95	+100	+105	+110	+115	+120	+125	+130	+135	+140
Resistance Ω	1328.0	1347.1	1366.1	1385.1	1404.0	1422.9	1441.8	1460.7	1479.5	1498.3	1517.1	1535.8
Temperature °C	+145	+150	+155	+160	+165	+170	+175	+180	+185	+190	+195	+200
Resistance Ω	1554.6	1573.3	1591.9	1610.5	1629.1	1647.7	1666.3	1684.8	1703.3	1721.7	1740.2	1758.6

Screw-in sensors

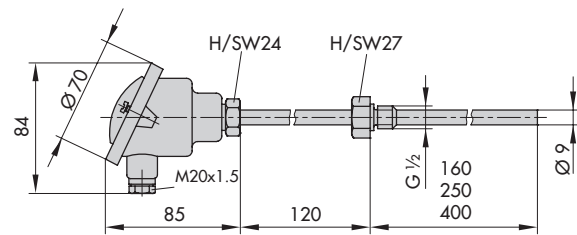
Types 5207-2x



Type 5217; immersion depth adjustable between 60 and 280 mm



Type 5207-4x



Sample application

Pipe installations:

- a) On elbows, against the direction of flow
- b) In smaller pipes, positioned at an angle against the direction of flow
- c) At a right angle to the flow

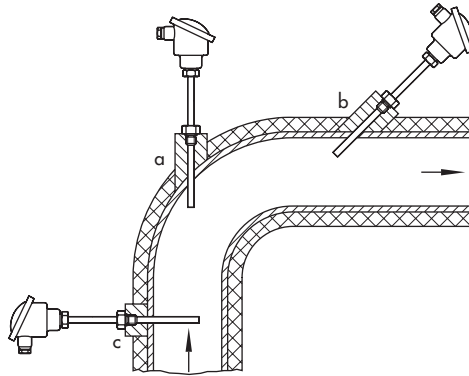


Fig. 1: Dimensions in mm · Screw-in sensors

Contact sensor

Type 5267-3

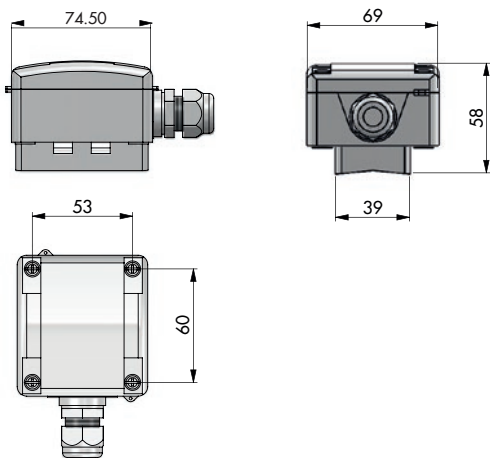


Fig. 2: Dimensions in mm · Contact sensor

Outdoor sensor

Type 5227-4

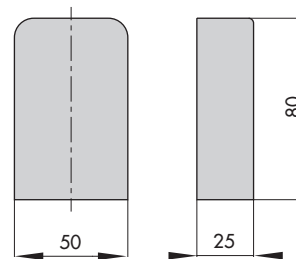


Fig. 3: Dimensions in mm · Outdoor sensor

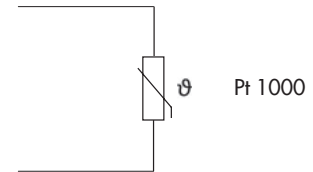
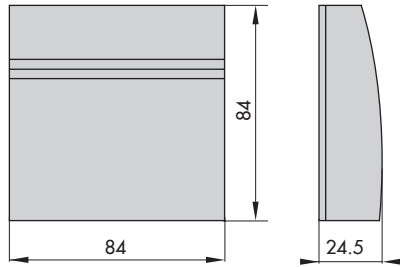
## Room sensors

### Installation

- On the wall of the room concerned at a height of 1.5 m
- Do not mount the sensor in alcoves or close to appliances which give off heat

#### Type 5257-11 Room Panel

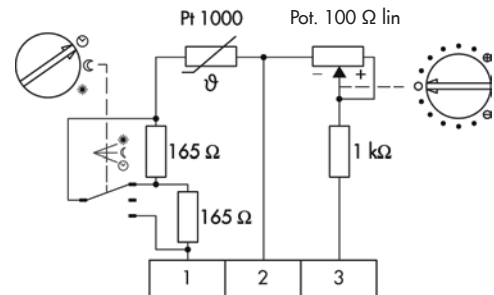
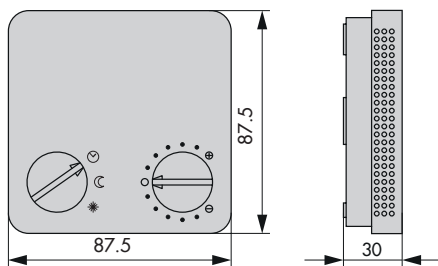
Room sensor for measuring the room temperature



#### Type 5257-51 Room Panel

Remote control of heating controllers

Room sensor for measuring the room temperature; changing the room temperature set point with the mode switch



☉ Automatic mode

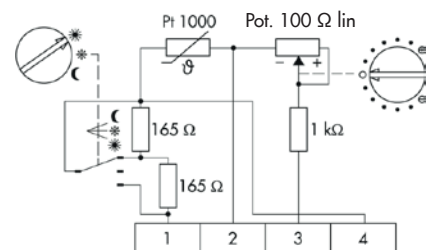
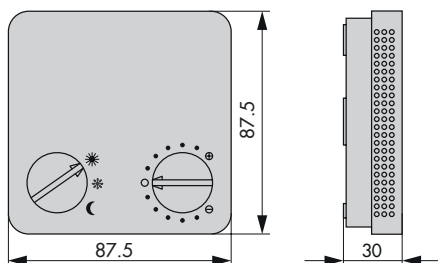
☾ Night mode (reduced operation)

☀ Day mode (rated operation)

#### Type 5257-71 Room Panel

Remote control of electric actuators with process controller

Room sensor for measuring the room temperature; changing the room temperature set point with the mode switch



☀ Day mode (rated operation)

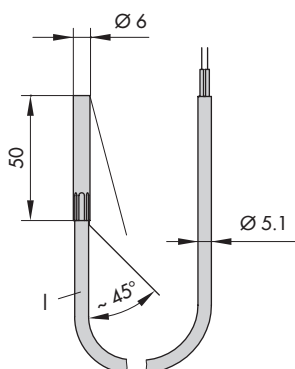
❄ Off/frost protection

☾ Night mode (reduced operation)

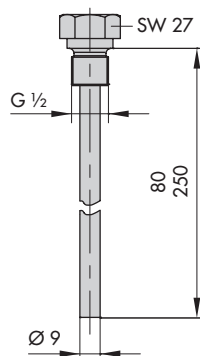
Fig. 4: Dimensions in mm · Room panels

## Immersion sensors

Types 5277-21/-31/-51



Thermowell



### Connecting cable length

Type 5277-21:  $l = 2$  m, silicone connecting cable

Type 5277-31:  $l = 3$  m, silicone connecting cable

Type 5277-51:  $l = 5$  m, silicone connecting cable

Fig. 5: Dimensions in mm · Immersion sensors

## Disposal



SAMSON is a producer registered at the following European institution  
► [https://www.ewrn.org/national-registers/national-registers/](https://www.ewrn.org/national-registers/national-registers)  
WEEE reg. no.:  
DE 62194439/FR 025665

- Observe local, national and international refuse regulations.
- Do not dispose of components, lubricants and hazardous substances together with your other household waste.

### **i** Note

We can provide you with a recycling passport according to PAS 1049 on request. Simply e-mail us at [aftersaleservice@samsongroup.com](mailto:aftersaleservice@samsongroup.com) giving details of your company address.

### **T** Tip

On request, we can appoint a service provider to dismantle and recycle the product.

## Associated Information Sheet

- For temperature sensors and thermostats ► T 5200

## T 5573 EN

## TROVIS 5573 Heating and District Heating Controller



## Application

Control of up to two control circuits



**Fig. 1:** TROVIS 5573 Heating and District Heating Controller

- 1 TROVIS 5573-0 with icon readings on the display
- 2 TROVIS 5573-1 with plain-text readings on the graphics display

- Control of a primary heat exchanger or boiler with one mixing heating circuit and one non-mixing heating circuit (both outdoor-temperature-compensated) and control of DHW heating in the secondary circuit
- Outdoor-temperature-compensated buffer tank control with solid fuel boiler and solar circuit control
- Control of one outdoor-temperature-compensated heating circuit and a DHW heating with two valves in the primary circuit
- Control of two outdoor-temperature-compensated heating circuits with two valves in the primary circuit

## Special features

- Rotary switch for direct access to the operating modes and key parameters of the control circuits
- Intuitive data retrieval and input by pressing and turning the pushbutton
- 365-day time switch with up to four time schedules and automatic summer time/winter time changeover; up to three times-of-use per day (input in steps of 15 minutes)
- Room panels connected to individual heating circuits to override operating mode and rated room temperature
- Demand-driven control by set point demand by subsequent controllers over a 0 to 10 V signal: The primary circuit controls the maximum flow temperature demanded plus adjustable boost.
- Heating characteristics optionally based on the gradient or based on four points; variable return temperature limitation
- Adaptation: Automatic adaptation of the heating characteristic (room temperature sensor required)
- Optimization: Calculation of the best possible activation and deactivation times for the heating (room temperature sensor required)
- Drying of jointless floors function with adjustable parameter settings
- Updatable flash memory in controller (operating system)
- Configuration and parameterization using a memory module
- Data logging function
  - Operating data can be saved to a data logging module

- Data can be displayed in the data log viewer on a computer
- TROVIS 5573-1: Analysis on the graphics display of the data saved in the operating data memory

- Heating control only
- Heating control together with DHW heating
- DHW heating only

Outdoor-temperature-compensated flow rate or capacity limitation can also be implemented.

## Versions

- **TROVIS 5573-000x**: Heating and district heating controller with icon readings on the display
- **TROVIS 5573-100x**: Heating and district heating controller with plain-text readings on the graphics display
- **TROVIS 5573-110x**: Heating and district heating controller with graphics display and M-Bus interface for three M-Bus units

## Installation

- Panel mounting: Two adjustable fixing clamps attached to the controller are used to mount it.
- Wall mounting: The base of the housing is screwed to the wall.
- Rail mounting: The base of the housing is pushed onto a rail.

## Optional interfaces for communication:

RS-232 to computer communication module

RS-485 communication module

## Design and principle of operation

The heating controller is adapted to the specific system by setting the appropriate system code number. Additional sensors and/or functions which are not part of the system's basic configuration can be selected in the function blocks. The switch positions  $\diamond$  and entry of the key number allow access to the corresponding levels. For trained personnel, the configuration levels used to set function blocks are indicated by 'CO' and the parameter levels are indicated by 'PA'. Data is retrieved and entered at the heating controller using a rotary pushbutton.

### TROVIS 5573

Data input is facilitated by icons displayed on the LCD.

### TROVIS 5573-1

Data input is facilitated by icons and plain text displayed on the LCD.

The rotary switch is used to set the operating mode and the key parameters required for individual circuits.

## M-Bus interface

(TROVIS 5573-110x only)

A maximum of three meters conforming to EN 13757 can be connected for data transfer. In addition, heat meters are available for flow rate and/or capacity limitation for each control circuit. Various limits can be adjusted for the following operating modes in control circuit RK1:

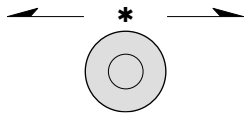
## Operating controls

The operating controls are located in the front panel of the heating controller.

The rotary pushbutton is used to select readings, parameters and function blocks.

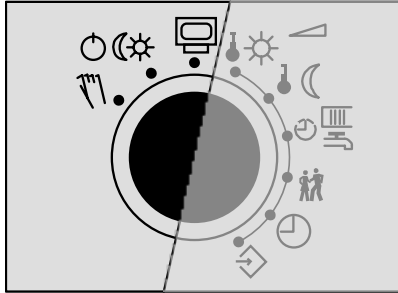
The rotary switch is used to set the operating mode and the key parameters for each control circuit.

### Rotary pushbutton

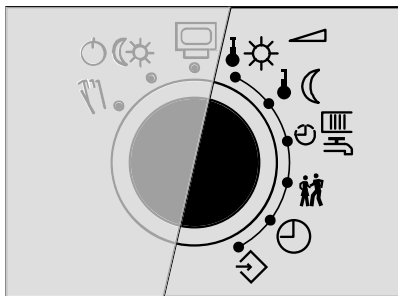


- Turn  
Select readings, parameters and function blocks.
- \* Press  
Confirm adjusted selection or settings.

### Rotary switch



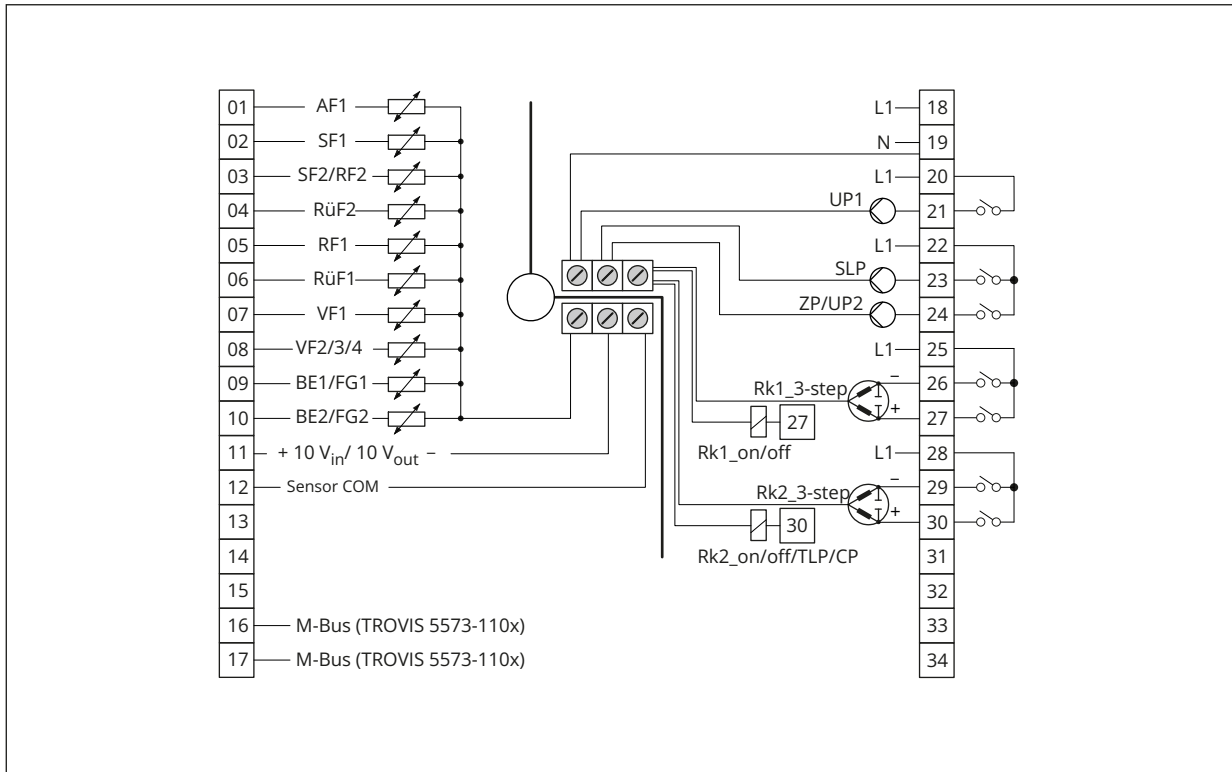
- Operating level
- ☀ Operating modes
- ☞ Manual level



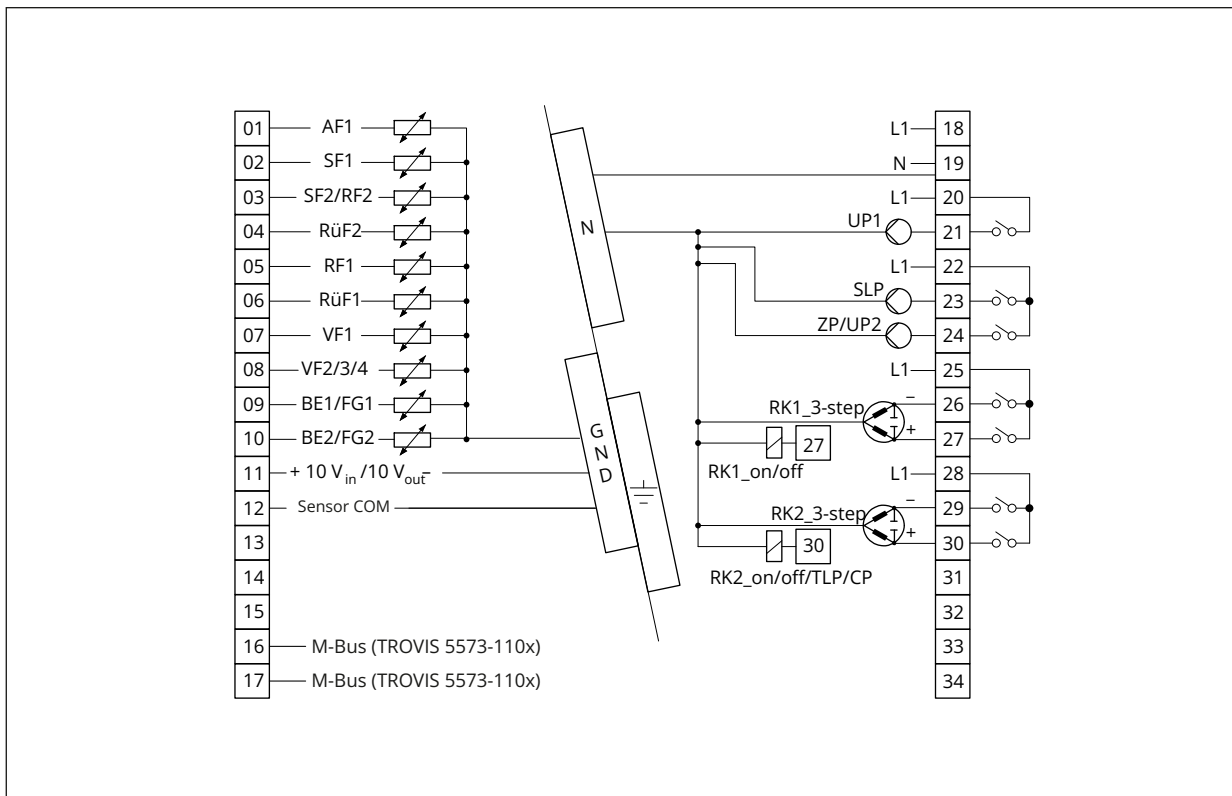
- ↓☀ Day set point (rated room temperature)
- ↓☾ Night set point (reduced room temperature)
- ☁☀ Times-of-use for heating/DHW
- ☀ Special time-of-use
- ⌚ Time/date
- ⚙ Settings (parameter and configuration level)

## Electrical connection

The controller consists of the housing containing the electronics and a separate terminal board for electrical connection. Two wires with a cross-section of max. 1.5 mm<sup>2</sup> can be connected to each terminal. The sensor connection lines must be installed separately from the lines carrying the power supply.



**Fig. 2:** Wiring of TROVIS 5573 Controller with standard base

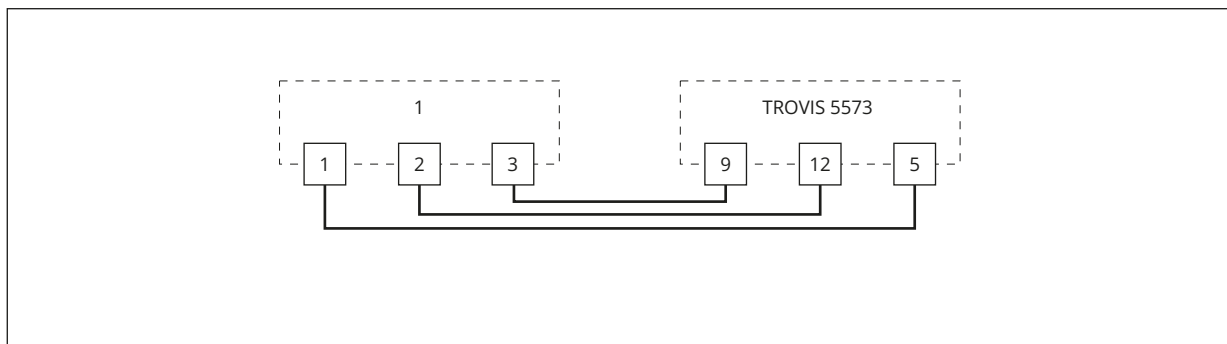


**Fig. 3:** Wiring of TROVIS 5573 Controller with high base

## Abbreviations

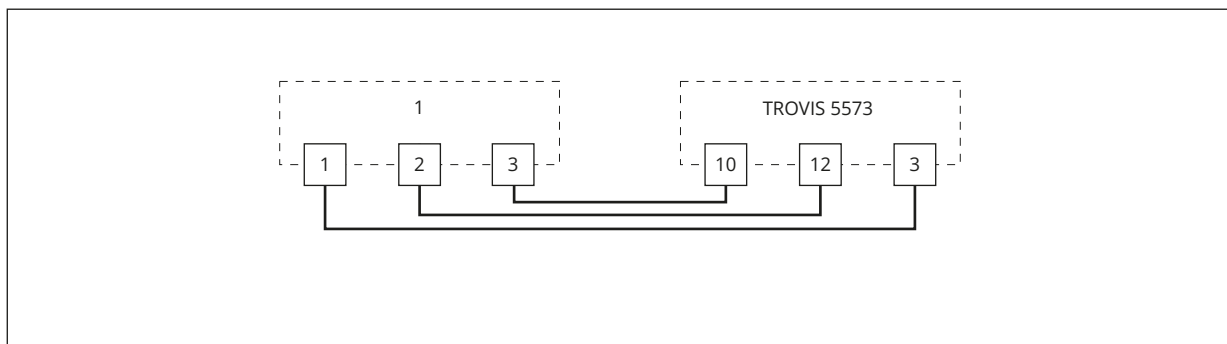
AF	Outdoor sensor
BE	Binary input
CP	Solar circuit pump
FG	Potentiometer
RF	Room sensor
RK	Control circuit
RüF	Return sensor
SF	Storage tank sensor
SLP	Storage tank charging pump
TLP	Heat exchanger charging pump
UP	Circulation pump (heating)
VF	Flow sensor
ZP	Circulation pump (DHW)

## Room panel



**Fig. 4:** Wiring of a room panel for RK1

1 Type 5257-5(x) Room Panel; Type 5244 no longer available.



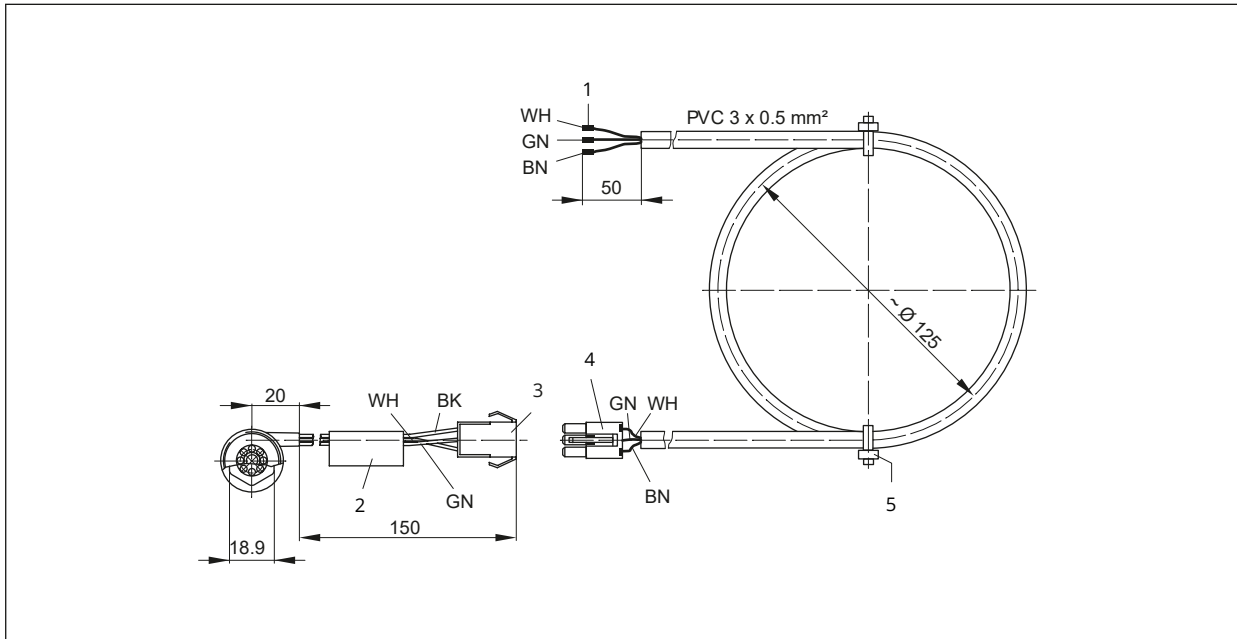
**Fig. 5:** Wiring of a room panel for RK2

1 Type 5257-5(x) Room Panel; Type 5244 no longer available.

## Water flow sensor

(TROVIS 5573-1 only)

WSS		Extension cable	TROVIS 5573-1
GND	BK	BN	12
Signal	GN	GN	10
5 V	WH	WH	11



**Fig. 6:** Extension cable for water flow sensor

- WH White
- GN Green
- BN Brown
- BK Black
- 1 Wire end ferrule
- 2 Nameplate
- 3 Bushing
- 4 Connector
- 5 Cable tie

**Table 1:** Permissible conductor cross-section for terminals

Cable	Conductor cross-section
Single-wire	0.33 to 2 mm <sup>2</sup>
Multi-wire	0.33 to 2 mm <sup>2</sup>

Length of insulation to be stripped off the conductor ends: 6 mm

## Technical data

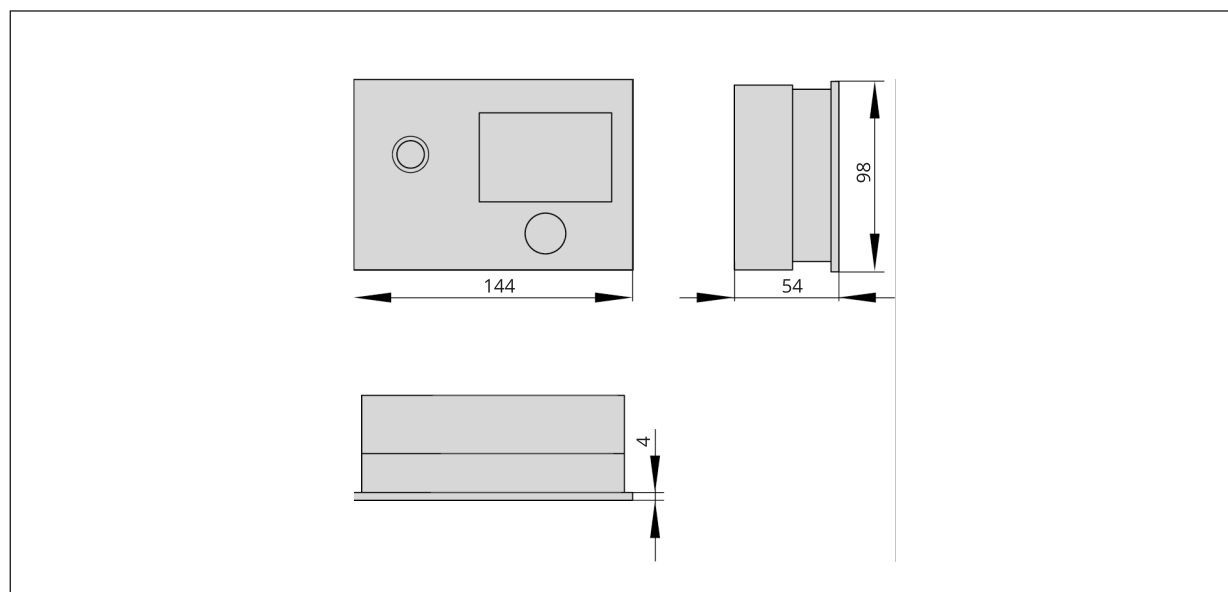
**Table 2:** *Technical data*

Inputs	8x inputs for Pt1000, PTC or Ni1000 temperature sensors and 2x binary inputs Terminal 11 as 0 to 10 V input (e.g. for external demand or outdoor temperature signal)
Outputs <sup>1)</sup>	2x three-step signal: rating max. 250 V AC, 2 A, alternatively 2x on/off signal: rating max. 250 V AC, 2 A 3x pump output: rating max. 250 V AC, 2 A; All outputs are relay outputs with varistor suppression Terminal 11 as 0 to 10 V output (e.g. for continuous closed loop control, outdoor temperature, signal for external demand or pump speed control) Load >5 kΩ
Interfaces (TROVIS 5573-110x only)	M-Bus interface (mini master) for up to three M-Bus units, protocol according to EN 13757 (formerly EN 1434-3)
Optional interfaces	1x Modbus RS-485 interface for two-wire bus using RS-485 communication module (Modbus RTU protocol, data format 8N1, RJ-45 port at the side)
Supply voltage	85 to 250 V
Power line frequency	48 to 62 Hz
Power consumption TROVIS 5573	Max. 4.7 VA, typical: 2.3 VA
TROVIS 5573-1	Max. 6 VA, typical: 2.5 VA
Permissible ambient temperature range	
Operation	0 to 55 °C
Transportation and storage	-10 to +60 °C
Degree of protection	IP40 according to EN 60529
Class of protection	II according to EN 61140
Degree of contamination	2 according to EN 61010-1
Overvoltage category	II according to EN 60664-1
Noise immunity	According to EN 61000-6-1
Noise emission	According to EN 61000-6-3
Conformity	<b>CE</b>
Weight	Approx. 0.5 kg

<sup>1)</sup> For systems with one control circuit, a maximum of four pumps are available

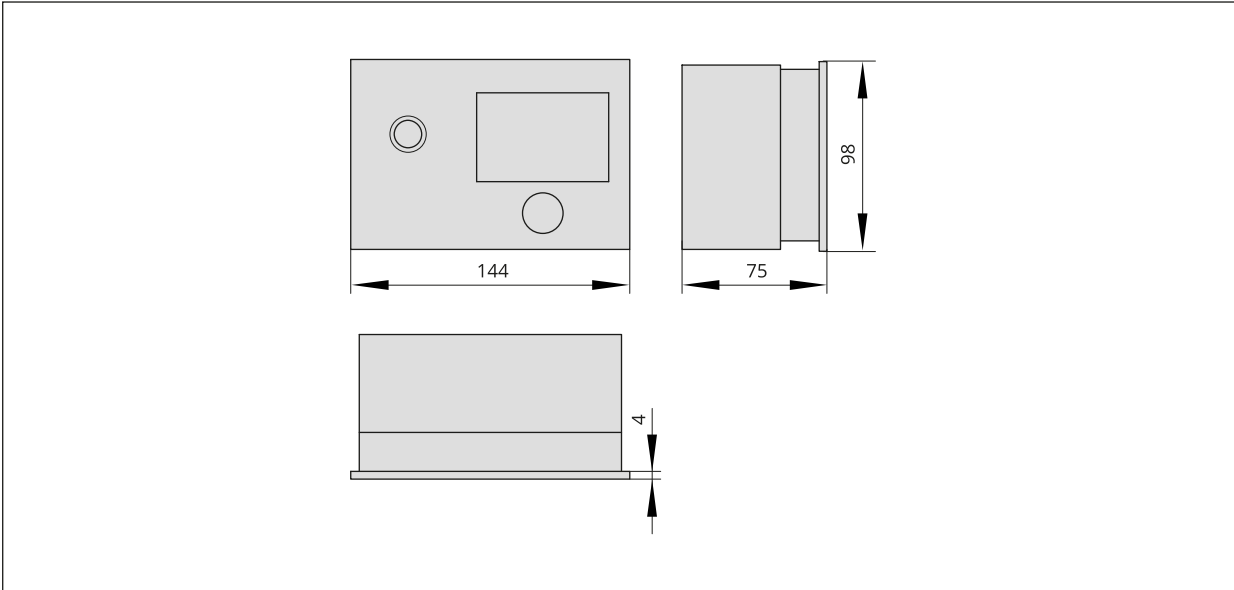
## Dimensions

Panel cut-out: 138 x 92



**Fig. 7:** *Dimensions in mm · Heating and district heating controller with standard base*

Panel cut-out: 138 x 92



**Fig. 8:** Dimensions in mm · Heating and district heating controller with high housing base

## Accessories

**Table 3:** *Accessories*

Surge arrester SA 5000	Order no. 1400-9868
Memory module	Order no. 1400-9379
Mini module	Order no. 1400-7436
Data logging module	Order no. 1400-9378
USB Converter 3	Order no. 1400-9377
4-port bus hub	Order no. 1400-7140
RS-485 communication module	Order no. 8812-2002
Modbus GPRS gateway	Order no. 1402-0701
▶ SAM HOME Gateway	Type 5660
▶ SAM MOBILE+ Gateway	Type 5656
TROVIS-VIEW software (free of charge)	▶ <a href="http://www.samsongroup.com">www.samsongroup.com</a> > DOWNLOADS > Software & Drivers > TROVIS-VIEW
SAM DISTRICT ENERGY	▶ <a href="http://www.samsongroup.com">www.samsongroup.com</a> > PRODUCTS > Digital solutions > SAM DISTRICT ENERGY ▶ EB 6901
Water flow sensor with extension cable (only for TROVIS 5573-1)	Order no. 1400-9246
Sensors and room panels	▶ <a href="http://www.samsongroup.com">www.samsongroup.com</a> > PRODUCTS > Sensors and Thermostats ▶ T 5200 (Information Sheet: Temperature Sensors and Thermostats)

## Ordering text

### TROVIS 5573 Heating and District Heating Controller

- With icon readings on the display/with plain-text readings/with graphics display and M-Bus interface
- With standard base/with high housing base

### Associated mounting and operating instructions

- TROVIS 5573           ▶ EB 5573
- TROVIS 5573-1       ▶ EB 5573-1
- TROVIS-VIEW         ▶ EB 6661

