Product catalogue

July 2021

VDH In control.

Intro

VDH Products has been a one of the world's leading manufacturers for more than 40 years of accurate control systems in all situations where temperature, pressure and relative humidity are critical parameters. VDH Products is known for the innovativeness and reliability of its solutions, combined with the high quality of its products.

Reliability and quality

Throughout the years, VDH Products has grown to become an authority on high-tech measuring instruments and measuring systems. VDH Products keeps the development and production very much on a tight rein. Why? Because VDH Products makes no concessions whatsoever when it comes to reliability and durability. That is why just as much attention is paid to a simple thermometer, sensor, timer or interface as to the complete control unit for a specific application.

The first choice in many sectors

Solutions from VDH Products are used in e.g. the following branches:

- Refrigeration and climate technology
- Agriculture and market gardening
- Refrigerated transport
- Spraying booths
- Fruit ripening and storage/preservation
- Baking technology
- Process technology and machine building
- Heating and ventilation technology

R&D

VDH Products has its own excellent Research & Development department. Our highly-qualified hardware and software engineers are able to use the most modern systems and dedicated software to develop our own printed circuits, embedded software, casings and front panels. A large number of tests are carried out in our own laboratory, which has a climate-controlled area and EMC testing equipment. The ISO-certified production process operates using fixed, controllable procedures.

Worldwide dealer network

As well as its headquarters in Roden, VDH Products also has its own branch in Germany and it has built up a global network of dealers and preferred suppliers over the years.

Contact information

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9301 ZS Roden

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BTW NL009783234B01
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Monday	:08:00-17:00u
Tuesday	:08:00-17:00u
Wednesday	:08:00-17:00u
Thursday	:08:00-17:00u
Friday	:08:00-16:00u
Saturday	:Closed
Sunday	:Closed

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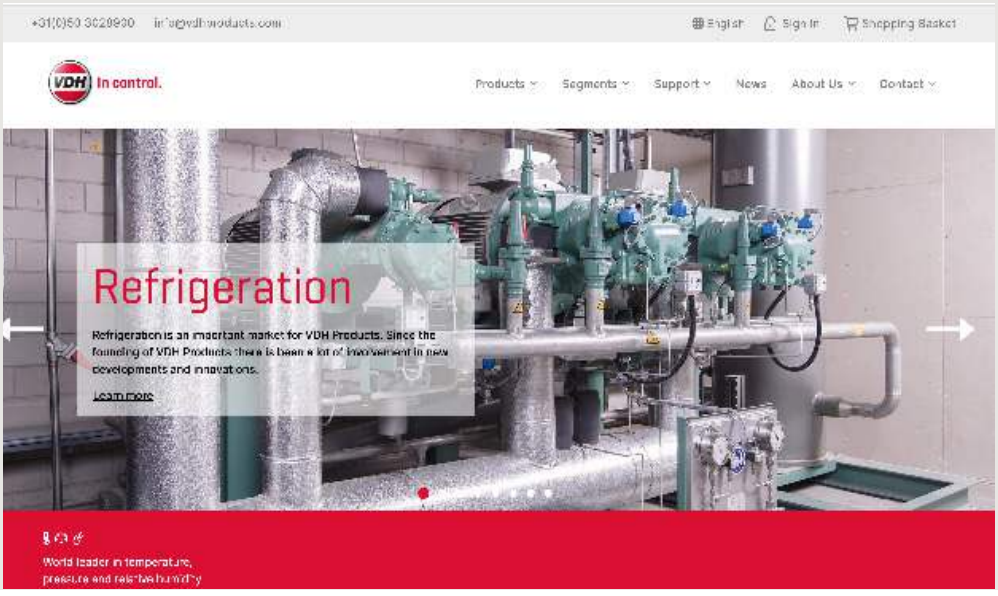
E-mail sales: verkoop@vdhproducts.com

Website
The website of VDH Products provides an overview of the product range, interesting blog articles and practical information such as manuals and data sheets.

www.vdhproducts.com

Follow VDH Products on LinkedIn, Facebook and Twitter for the latest developments.



Conditions

General conditions for sales and delivery for the technological industry, filed with the Registry of the "Rechtbank" (District Court) of The Hague on April 16, 2010 under No. 29/2010.
Issued by the Association FME-CWM, P.O. Box 190, 2700 AD ZOETERMEER

The FME conditions can be found in Annex I at the back of the catalog.

Pricelist
Prices mentioned in the pricelist are in Euro's. Prices are subject to change without notice.
Document is subject to misprints.

Orders
Orders must preferably be confirmed via e-mail if possible, indicating the item number and the project or order number as reference.

Transport conditions
Incoterms: FCA Roden.
Shipment costs ≤ 30 kg: euro 12,50.
Pallet transport: euro 75,00 (inside The Netherlands)
Express and courier costs will be charged extra.
Possibilities: Express delivery <9:00 or <12:00 guaranteed next business day.
All shipments are delivered, if stated otherwise, with GLS Transport.

Returns
For returning products a term of 30 days after purchase is valid. The delivery date is the date of purchase.
Return Policy:

- Returns must be accompanied by the original invoice or packing list of the order.
- The product is complete, undamaged and unused.
- Custom made products as well as products with printed logo are not eligible for a return.

In case of a return shipment, a credit invoice for the original purchase price is given in consultation with the sales department

If an item is damaged by use, a part of the return amount may be withheld for depreciation.

If the article does not meet the requirements of the return policy, VDH Products BV may refuse the shipment. In that case the shipment will be returned to sender.

Returns must be at all times take place in consultation with the sales department of VDH Products BV.

Returns must be sent freight paid to VDH Products BV, Produktieweg 1, 9301 ZS Roden, The Netherlands.

The shipment must be accompanied by a completed return form, annex 2.

Repair/calibration
Items which are offered for repair or calibration must be send freight paid to the address of VDH Products BV and must be accompanied by a completed return form, annex 2.

Emergency service
Outside office hours an emergency service for urgent matters is offered by telephone
Support costs can be charged by the After sales department.

Warranty
Warranty on the products of VDH Products BV is 12 months from the date of delivery.

Logo prices

Many of our instruments can be provided with your company logo.
Please provide your logo in .eps format, so that we can offer you a proposal for a professional look.

Prises name imprint:
Setup costs € 135,00.

1 - 3	instruments	€	31,-	for each color.
4 - 6	instruments	€	20,-	for each color.
7 - 10	instruments	€	12,-	for each color.
11 - 24	instruments	€	4,-	for each color.
25 - 49	instruments	€	3,-	for each color.
50 - 99	instruments	€	2,-	for each color.
100 - 299	instruments	€	1,50	for each color.
300 - 999	instruments	€	1,-	for each color.

Logos that are made up of multiple colors can also be printed, with the exception of logos that have a fading.
Costs are calculated per printing, so a second or third color will double or triple the final price.

Explanation of the symbols


Cooling


Heating


Offcycle defrost


Electrical defrost


Hotgas defrost


Interval defrost


Real Time defrost


Dehumidifying


Humidifying

Table of contents

Switch panels

A one-stop shop. VDH Products has a panel building department that offers a comprehensive package of capabilities, with just a single point of contact for engineering, production and commissioning.

VDH Products knows a great deal about control technology. For more than 35 years now, VDH Products has been developing and producing high-tech control systems.

Combining both control and switching technology lets VDH Products offer a unique total product, at the high levels of quality and reliability that VDH is known for.
From one-offs to serial production, VDH Products has a suitable solution for any question.

- Switching boxes
- Control boxes
- Operating panels

VDH Products has its own engineering department, where a detailed intake is following by translation of the customer requirements in a complete set of drawings. Production is started after the drawings are approved by the customer. A flexible team of professionals means that every project can be realised entirely in line with the norms and standards of the industry.

Turn-key delivery

The reliable quality of VDH Products is guaranteed by a strict final inspection.

Each finished product that leaves the factory is tested for correct operation. By using our own products, the control equipment can also be installed directly and parameters can be set according to the customer's wishes. On location
VDH Products also offers the possibility forguidance in commissioning.

VASP

Advanced management and control system

In many industrial and commercial processes, maintaining the right ambient conditions is vital. Even the smallest deviation of temperature, pressure or relative air humidity could have dramatic consequences. Such as in cold storages and frozen food stores or in large hotel or restaurant kitchens. In all of these cases, total process control is essential. The VASP management and information system gives you integrated control of all your systems, as well as detailed data recording and full-featured alarm functionality.

VASP is a management system which converts all the data from your cold-storage, freezer and other systems into real-time process information. The system runs on a dedicated server or computer, which communicates with the connected interfaces and controllers via Ethernet. VASP gives you insight into all running processes so you can closely monitor them and intervene immediately when needed.

Unique features:

- User-friendly, logical and intuitive to operate
- Clear process visualization
- Extensive alarm functionality by e-mail or VASP smartphone app
- Detailed data recording
- Multi language
- Webbased

For more information or a live demonstration of VASP, please contact the sales department of VDH Products.

VASP

VASP is available with a number of different options. This makes VASP adaptable to the needs of each application.
By default VASP offers the possibility to read out and control all Alfanet controllers including the MC 585 and the MC 885. If MC3 controllers or the Proba 5 Compact also need to be read out and operated, the VASP software in the Pro version can be used.
VASP Proba is available for reading out and operating the Proba 4 and Proba 5.

All above versions work with the standard control screen. Besides this standard control screen, VASP can also be expanded with a map on which controllers of multiple locations can be read out and operated. An almost unlimited number of locations can be created and positioned exactly on the map. An example of an application for this solution is an incident room. The manager of the control room can continue to monitor all the locations simultaneously. In case of an alarm at one of the locations, this is immediately visible on the map.

Another option of VASP is the use of layers. Each layer can be provided with an image which can be installed by the user. Each individual controller can be placed exactly on a layer. This way e.g. temperatures can be placed exactly where they are measured.

The additional costs for the different options can be requested from the sales department of VDH Products BV.

Article number	Product name
907.000384	VASP Software - Proba version
907.000411	VASP Software - Basis version
907.000412	VASP Software - Pro version

Temperature

- Thermostats
- Temperature loggers
- Temperature sensores
- Thermometers

Proba 5

Technical Specifications

Type:
Proba 5
Housing:
Mounting plate with anodized aluminium housing
Dimensions:
308 x 191 x 100mm
Front:
Anodized aluminium
Connections:
Terminals on pcb

Supply:
12-15 Vdc (2A max)
Range:
-40/+50°C
Inputs:
Pt 1000 temp.sensor
Analogue inputs
Digital inputs
Outputs:
Analogue outputs
Relays outputs
RS485 output
Network:
1x ethernet for pc

The PROBA 5 is the successor of the PROBA 4 ripening controller.
The PROBA 5 is characterized by the central DIN-Rail control module, which can be mounted in a (central) switch cabinet.
The operator can use the Proba 5 remotely by the VASP software or local at the ripening room by a touchscreen control panel.

With the touchscreen control panel (optional) it is possible to readout the room temperature and to change the set point. It is also possible to stop a program and to start the stand-by mode. This is important if the server crashes or the network is damaged. The normal operation will be taken place on the pc with VASP.

Each Proba 5 controller has got its own IP address and can be connected to a network switch, which is connected to the VASP pc.
The VASP pc software should be installed on a server pc and can be used with every pc which on the network. The pc should have a browser with java.

The VASP software can control a maximum of 100 PROBA's 5. If necessary, it is possible to make more locations. Each location can contain 100 controllers.

Ripening programs can be made by using a graph. In this graph it is very easy to make adjustments. Not only in default programs but also in running programs. Set point changes can take place with a ramp, with a step. or with a combination of these two. It is possible to make as many set point changes per day as you want.

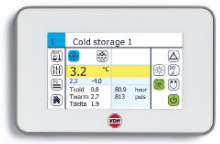
In case of an alarm, there can made a difference between office times and out of office times. It is possible to send the alarm message by e-mail or push message by the VASP app.

The PROBA 5 meets the strong requirements of the TÜV Rheinland. We have received a TÜV Rheinland ID number for the PROBA 5. This ID number is worldwide known and means that the quality from the PROBA 5 is guaranteed en meets the strong requirements.

Analogue inputs can be configured for:
- Humidity sensor
- Gas sensor
- Pressure sensor

Digital inputs can be configured for:
- Fan failure
- Cooling failure
- Heating failure
- Door switch
- External alarms

Article number	Product name	Supply voltage	PT1000 temperature sensors	Analogue inputs for e.g. gas and humidity sensors	Digital inputs for door contact and external alarms	Analogue output for e.g. three-way valves	Relay outputs	RS485 output to control unit	Ethernet connection for network
907.000413	Proba 5 Controller	12 VDC	10	10	16	8	24	●	●
904.000879	Compact controller	12 VDC	4	1	8	10	6	●	●
904.000822	Proba 5 7"Touchscreen								
907.000428	Proba 5 7" Doorcabinet								



MC3-Fruit

Technical Specifications

Type:
MC3-Fruit
Housing:
Mounting plate with anodized aluminium housing
Dimensions:
308 x 191 x 100mm
Front:
Anodized aluminium
Connections:
Terminals on pcb

Supply:
12-15 Vdc (2A max)
Range:
-40/+50°C
Inputs:
Pt 1000 temp.sensor
Analogue inputs
Digital inputs
Outputs:
Analogue outputs
Relays outputs
RS485 outputs
Network:
1x ethernet for pc

The MC3-FRUIT is latest generation store controllers and is the successor of the wel-lknown FC 785-PC controller.

The MC3-FRUIT is special developed as an economical way of storing fruit like apples, pears and berries.
The MC3-FRUIT is developed on experience and feedback from professional fruit retailers.
The controller is tested extensive and is qualified by the TÜV etcetera.

The MC3-FRUIT controller offers more control than its predecessors. Especially for cooling and defrost the controller has more advanced functions. The controllers can be divided in separate groups and sub groups.

For energy savings the cool- and defrost groups can be configured separately.
Depending on the required in- and outputs, the MC3-Fruit can control up to five storage room with one controller.
It is also possible to use one controller for one room. If one room is cooling, another room can use the hot gas for defrosting.
One MC3-FRUIT controller can control a maximum of eight evaporators.

Multiple thermostats can form a network.
With hot gas defrost the defrost will only start when at least one other room is cooling. If no rooms are cooling, the defrost will be delayed. If this takes too much time the room with the largest deviation to its setpoint will be forced to cool te produce hot gas.

The measured values from the MC3-FRUIT controller can be read out and adjusted with a control panel. Most of the time the control panel will be installed in the neigh-bourhood of the room. One control panel can control a maximum of five rooms.
A small network cable connects the MC3-FRUIT with the control panel.
The MC3-Fruit can be connected to VASP.

Article number	Product name	Total in-/ Outputs	PT1000 temperature sensor input	Digital contact input	Analog voltage (0..1/10V) input	Analog current (0/4.. 20mA) input	Relay contact output	Analog (0..10V/ 20mA) output
907.100004	MC3-Fruit Controller 3v		16	16	12		13	16
907.100012	MC3-Fruit Controller 3v		16	16	12		25	
907.100014	MC3-Fruit Controller 3v		8	8			19	8
907.100015	MC3-Fruit Controller 2v		16	16			13	
907.100016	MC3-Fruit Controller 3v		18	16	2	2	25	8
907.100017	MC3-Fruit Controller 2v		8	4		3	13	

Article number	Product name	Total in-/ Outputs	PT1000 temperature sensor input	Digital contact input	Analog voltage (0..1/10V) input	Analog current (0/4.. 20mA) input	Relay contact output	Analog (0..10V/ 20mA) output
907.100018	MC3-Fruit Controller 3v		32				25	
907.100019	MC3-Fruit Controller 3v		16				25	
907.100021	MC3-Fruit Controller 3v		16	16			25	
907.100025	MC3-Fruit Controller 3v		16	16			13	
907.100031	MC3-Fruit Controller 3v		32		12		25	
907.100037	MC3-Fruit Controller 3v		32	16			25	
907.100038	MC3-Fruit Controller 3v		32	8			19	
907.100051	MC3-Fruit Controller 4v		34	8	4	6	19	16
907.100063	MC3-Fruit Controller 3v		32	24			19	
907.100066	MC3-Fruit Controller 4v		34	11	1	12	19	16
907.100050	MC3-Touch Fruit/Cool 4.3							

MC3-Cool

Technical Specifications

Type:
MC3-Cool
Housing:
Mounting plate with anodized aluminium housing
Dimensions:
308 x 191 x 100mm
Front:
Anolized aluminium
Connections:
Terminals op pcb

Supply:
12-15 Vdc (2A max)
Range:
-40/+50°C
Inputs:
Pt 1000 tem.sensor
Analogue inputs
Digital inputs
Outputs:
Analogue outputs
RS485 outputs
Network:
1x ethernet for pc

The MC3-Cool is an universal cool/freeze thermostat for the control of maximum 5 rooms per controller and up to 8 evaporators per room. The new MC3 hardware platform is modular build, that's why the controller fits every cooling or freeze project.

The MC3-Cool can be mounted on DIN rail in the switch board, from which all the valves, fans and defrost actions will be controlled.

Operating of the controller can be done at the cooling room by a remote panel as well on a PC with VASP software.

The MC3-Cool has its own IP-address and can be connected by Ethernet to the VASP network.

The following connections are available:
- Pt-1000 2-wired temperature input
- Digital input
- Relay
- Analog input (0-10V / 4-20mA)
- Analog output (0-10V / 4-20mA)

Dual sectional housing: contains a maximum of 4 in/output boards
triple sectional housing: contains a maximum of 6 in/output boards

The MC3-Cool requires a power supply of 12Vdc.

Article number	Product name	Total in-/ Outputs	PT1000 temperature sensor input	Digital contact input	Analog voltage (0..1/10V) input	Analog current (0/4.. 20mA) input	Relay contact output	Analog (0..10V/ 20mA) output
907.100026	MC3-Cool Controller 3v		8	8			19	8
907.100028	MC3-Cool Controller 2v		8	4		3	13	
907.100034	MC3-Cool Controller 3v		16	16			25	
907.100035	MC3-Cool Controller 2v		16	16			13	
907.100055	MC3-Cool Controller 3v		16				25	16
907.100069	MC3-Cool Controller 2v		8	8			7	8

MC2-FC

Technical Specifications

Type:
MC2-FC
Housing:
Grey plastic
Dimensions:
213 x 180 x 85 mm (whd)
Font:
Polycarbonate
Connections:
Screw terminals
Range:
-40/+50ºC
Supply:
230 Vac
Input:
5x Pt 1000 temp. sensor
Output:
5x relay output
2x RS485 output
Netwok:
1x ethernet for pc

The MC2-FC is a controller that can control, monitor and register the temperature, humidity and ventilation of cooling and storage cells. The controller is very suitable for the control of fruit storage
cells, but it can also be used for many other control applications.

The controller has Pt1000 temperature sensor inputs, digital inputs and relay outputs that are freely configurable. The inputs are used to supply the controller with the measurements and external data
required for the control processes. The controller uses these inputs in combination with the control settings (setpoints, parameters, etc.) to calculate the control values. The control values are transmitted by means of relays to the processes to be controlled.
Multiple controllers can be connected to each other through a network (RS485 or Ethernet, depending on the mode) so that they can exchange technical control data. In this way, they can be combined to create an integrated control system with mutually coordinated control actions, while
retaining their autonomous operation in the event of network malfunctions.
The controller supports two modes: the FC mode (standard) and the MC mode. In the FC mode, the controller functions in the same way as the FC785-PC controllers.

The controller can work together with FC785-PC controllers and other MC2-FC controllers through the RS485 Alfanet. In the FC mode, has the controller the same parameters as the FC785-PC controller.
There are two difference between the MC2-FC in FC mode and the FC785-PC:
· The MC2-FC uses 2-conductor Pt1000 sensors instead of 3-conductor Pt100 sensors.
· The MC2-FC cannot be operated with the Alfanet PC program. Instead, the VDH Alfa Server Program (VASP) is now available. That program can be used to operate both the MC2-FC controllers and the FC785-PC controllers (from software version 2.10).

In the MC mode, the controller can work together with MC3-FRUIT and MC3-COOL controllers through the Ethernet. This mode is described in another user guide. It is possible to switch between the two
modes using an internal web page (see section 5.2).
The controller can be operated using the touchscreen. Remote operation is possible using the VASP.
VASP provides access to the advanced control functions such as registrations, alarm handling settings, etc.
The controller has 5 temperature sensor inputs (which can also be used as digital inputs) and 5 relays. If more inputs or relays are necessary, the controller can be expanded with an optional 907.100054 MC3-EM [1Do12,1Rth16] extension module. That adds 11 temperature sensor inputs and 12 relays to the controller.

Article number	Product name
907.200001	MC2-FC Set up 4,3”
907.200002	MC2-FC Built-in 4.3”
907.100054	MC2 Extension module MC3-EM

MC 585

Technical Specifications

Type:
MC 585 thermostat
Housing:
Grey plastic
Dimensions:
213 x 180 x 85 mm (whd)
Supply:
230 Vac 50/60Hz 9VA
Range:
-40,0 / +50,°C per bereik 0,1°C
Temp. sensors:
2x SM811, 2-wire (KTY-81)
Digital inputs:
3x C/NO pot.free contact, Light, Door, External alarm
Relay outputs:
Compressor 230 Vac, 16(16)A
Fan 230 Vac 16(8)A
Defrost 230 Vac 16(8)A
Light 230 Vac 5A
Alarm (SPDT) C-NO-NC
Communication:
RS-485 Network ALFANET
Working temp:
-20 / +50°C
Store temp:
-20 / +60°C
Humidity:
10/90% RH not condensing
Accuracy:
± 0.5% from the range

The MC 585 is an universal controller for cool- and freezer rooms.

The thermostat is available for panel mounting and wall monting and is equipped with the folowwing functions:
• room-thermostat
• several fan control functions
• defrost clock for starting the defrost on interval base or real-time base
• off-cycle defrost, electrica defrost and hot gas defrost possible
• end of defrost thermostat with time limitation
• digital inputs for door switch, an external lightning switch and an alarm input
• heavy duty cool relay

The MC 585 has a range from -40/+50°C with a read out per 0,1°C.

The MC 585 needs a power supply of 230Vac. On request other supply voltages can be delivered.

De MC 585 supports modbus RS-485 communication to external applications.

Article number	Product name	Sensors	Control functions	Defrost					Alarm relay
904.000849	MC 585 Building	2	•	•	•	•	•	•	•
904.000879	MC 585 Buidling with door	2	•	•	•	•	•	•	•
904.000822	MC 585 Built-in	2	•	•	•	•	•	•	•

MC 885

Technical Specifications

Type:
MC 885
Housing:
Black plastic
Dimensions:
96 x 96 x 122 mm (whd)
Panel cut-out:
90 x 90 mm
Front:
Polycarbonate IP-44
Connections:
Screw terminals
Supply:
100 - 260Vac 47-440Hz

Display:
4- digit temperature display
4- digit setpoint display
LEDs for statusus
Function:
Cooling, heating and alarm
Range:
-50/+50°C read-out per 0,1°C
Input:
2x SM800
1x digital input
Output:
1x SPST relays contacts
2x SPDT relays contacts
1x analogue output
Network:
1x RS 485 for the Alfanet
Accuracy:
± 0.5% from the range

The MC 885 is an universal three stage thermostat.

The three relays outputs can be configured for the following functions:
• cooling on/off
• heating on/off
• modulating P(ID) cooling
• modulating P(ID) heating
• day/night indication
• on/off indication
• several alarms

The thermostat is equipped with an analogue output whitch can be configured for one of the following functions:
• P(ID) cooling
• P(ID) heating
• sensor value
• set point value
The output can be configured as a 0-5Vdc or a 0-10Vdc output.

The digital input of the MC 885 can be con-figured for one of the following functions:
• external day/night contact
• external alarm input
• external alarm reset
• external on/off switch

Two SM800 sensors can be connected to the MC 885. The sensor can be configured to control their own thermostat funtion but it's also possible to control on the average of the two sensor or on the differential between the two sensors.

The internal buzzer can be activated as soon as an alarm occurs.

The range of the MC 885 is -50/+100°C with the readout per 0,1°C.

The MC 885 can be equipped with a RS 485 output for readout an adjusting on the Alfanet.

The MC 885 uses a supply voltage between 100 and 260Vac.

A clear usermanual will be deliverd with the controller.

Article number	Product name	Description	Sensors	Control functions		Defrost					0-10V Output	Alarm relay
903.000768	MC 885 -50/100°C 100-260V	100-260V	2	•	•						1	•

Alfa 10 series

The Alfa 10 series is an universal range of rail mounting thermometers and thermostats. Due to the easy connection at the DIN rail the Alfa 10 can be used for many different applications.

Two different ranges are available: -50/+150°C with a read-out per degree or -10/+90°C with a read-out per tenth of a degree.

With the push buttons on the front a possible sensor deviation can be corrected.

The Alfa 10 is supplied directly with 230 Vac. The required temperature sensor is a SM 811.
There are several different types available, own with their specific functions.
In the diagram below there is an over view with the several types and their specific functions.

If the required function is not in the diagram, you can contact VDH Products for more information.

Technical Specifications

Type:
Alfa 10 series
Housing:
Grey ABS pastic
Dimensions:
53 x 90 x 58 mm (wlh)
Connections:
Screw terminals
Front:
Polyester
Supply:
230 Vac, 50/60 Hz (-10/+5%)
Operation:
By push buttons on the front
Sensor:
SM 811 (PTC sensor; 1000 Ohm at 25°C) (not included)
Relay:
SPDT contact 250V/16A (C-NO), 8A (C-NC) not inductive
Accuracy:
± 0.5% of the range

Article number	Product name	Description	Sensors	Control functions		Defrost				Alarm relay
904.010011	Alfa10 DP PT100 3-Wire -10/+40°C	thermometer	1							
904.010012	Alfanet 10 -50/+50°C		1							
904.010013	Alfanet 10 DP -10/+40°C		1							
904.010056	Alfanet 10 -50/+150°C		1							
904.010120	Alfa 11 DP 24VAC -10/+40°C	thermostat	1	•	•					
904.010137	Alfa 11 +50/+150°C		1	•	•					
904.010161	Alfa 11 PT100 3-Wire -50/+50°C		1	•	•					
904.010241	Alfa 11 PT100 3-Wire 0/+250°C		1	•	•					
904.010253	Alfa 11 -50/+150°C		1	•	•					
904.010014	Alfanet 11 -50/+50°C		1	•	•					
904.010117	Alfanet 11 0/+100°C		1	•	•					
904.010206	Alfanet 11 DP -10/+90°C		1	•	•					
904.010060	Alfa 13 0/+100°C	Alarm thermo-stat	1							•
904.010138	Alfa 13 -50/+150°C		1							•

Article number	Product name	Description	Sensors	Control functions		Defrost				Alarm relay
904.010141	Alfa 13 12Vdc -50/+150°C		1							•
904.010185	Alfa 13 24Vac -50/+50°C		1							•
904.010186	Alfa 13 24Vdc -50/+50°C		1							•
904.010193	Alfa 13 PT100 -50/+50°C		1							•
904.010200	Alfa 13 DP -10/+90°C		1							•
904.010225	Alfa 13 Pt1000 -100/+50°C		1							•
904.010153	Alfanet 13 -50/+50°C		1							•
904.010194	Alfanet 13 DP PT100 -10/+90°C		1							•
904.010201	Alfanet 13 DP -10/+90°C		1							•
904.010018	Alfanet 15 -50/+50°C	Defrost thermo-meter	1	•		•		•		
904.010019	Alfanet 15 DP -10/+40°C		1	•		•		•		

Alfa 20 series

Technical Specifications

Type:
Alfa 20 series
Housing:
Black ABS pastic
Dimensions:
144 x 72 x 50 mm (hwd)
Connections:
Screw terminals
Front:
Polyester
Supply:
230 Vac, 50/60 Hz (-10/+5%)
Operation:
By push buttons on the front
Sensor:
SM 811 (PTC sensor; 1000 Ohm at 25°C) (not included)
Relay:
SPDT contact 250V/16A (C-NO), 8A (C-NC) not inductive
Accuracy:
± 0.5% of the range

The Alfa 20 series is a range of thermometers and thermostats suitable for panel mounting and wall mounting. For both options special brackets are available.

Two different ranges are available: -50/+150°C with a read-out per degree or -10/+90°C with a read-out per tenth of a degree.

With the push buttons on the front a possible sensor deviation can be corrected.

The Alfa 20 is supplied directly with 230 Vac. The required temperature sensor is a SM 811.
There are several different types available, own with their specific functions.
In the diagram below there is an over view with the several types and their specific functions.

If the required function is not in the diagram, you can contact VDH Products for more information.

Article number	Product name	Description	Sensors	Control functions		Defrost				Alarm relay
904.010127	Alfa 20 DP -10/+90°C	Thermometer	1							
904.010158	Alfa 20 DP -10/+90°C Bakery		1							
904.010160	Alfa 20 -50/+150°C Bakery		1							
904.010104	Alfanet 20 -50/+50°C		1							
904.010105	Alfanet 21 -50/+50°C	Thermostat	1	•	•					
904.010110	Alfanet 21 0/+100°C		1	•	•					
904.010257	Alfanet 21 DP -10/+90°C		1	•	•					
904.010111	Alfa 23 0/+100°C	Alarm thermostat	1							•
904.010113	Alfa 23 -50/+50°C with buzzer		1							•
904.010130	Alfa 23 -50/+150°C with buzzer		1							•
904.010131	Alfa 23 DP -10/+90°C		1							•
904.010136	Alfa 23 DP -10/+90°C with buzzer		1							•
904.010180	Alfa 23 DP -10/+90°C 120Vac		1							•
904.010184	Alfa 23 -50/+150°C 120Vac		1							•

Article number	Product name	Description	Sensors	Control functions		Defrost				Alarm relay
904.010191	Alfa 23 DP -10/+90°C 12V		1							•
904.010192	Alfa 23 -50/+150°C 12Vac/dc		1							•
904.010197	Alfa 23 -50/+50°C 24Vac/dc		1							•
904.010106	Alfanet 23 -50/+50°C		1							•
904.010112	Alfanet 23 0/+100°C		1							•
904.010146	Alfanet 23 DP -10/+90°C with buzzer		1							•
904.010124	Alfa 25 DP -10/+40°C	Defrost ther-mostat	1	•		•			•	
904.010107	Alfanet 25 -50/+50°C		1	•		•			•	
	Surcharges Alfa 20 series									
904.000057	Stainless steel wall plate									
904.000076	Mounting brackets									

Alfa 30 series

The Alfa 30 is an universal range of thermometers and thermostats.

Two different ranges are available: -50/+150°C with a read-out per degree or -10/+90°C with a read-out per tenth of a degree.

With the push buttons on the front a possible sensor deviation can be corrected.

The Alfa 30 is supplied directly with 230 Vac. The required temperature sensor is a SM 811.
There are several different types available, own with their specific functions.
In the diagram below there is an over view with the several types and their specific functions.

If the required function is not in the diagram, you can contact VDH Products for more information.

Technical Specifications

Type:
Alfa 30 series
Housing:
Black ABS plastic
Dimensions:
35 x 77 x 71,5 mm (hwd)
Connections:
Screw terminals
Front:
Polyester
supply:
230 Vac, 50/60 Hz (-10/+5%)
Operation:
By push buttons on the front
Sensor:
SM 811/ (PTC sensor; 1000 Ohm at25°C) (not included)
Relay:
SPDT contact 250V/16A (C-NO), 8A (C-NC) not inductive
Accuracy:
± 0.5% of the range

Article number	Product name	Description	Sensors	Control functions		Defrost				Alarm relay
904.010133	Alfa 30 24Vac/dc -50/+50°C	Thermometer	1							
904.010151	Alfa 30 DP -10/+90°C 24Vac/dc		1							
904.010034	Alfanet 30 -50/+50°C		1							
904.010035	Alfanet 30 -50/+150°C		1							
904.010049	Alfanet 30 DP -10/+40°C		1							
904.010086	Alfa 31 -50/+50°C 12Vac	Thermostat	1	•	•					
904.010095	Alfa 31 0/+100°C 24Vac/dc		1	•	•					
904.010096	Alfa 31 -50/+50°C 24Vac/dc		1	•	•					
904.010097	Alfa 31 DP -10/+40°C 24Vac/dc		1	•	•					
904.010135	Alfa 31 DP -10/+40°C 12Vac		1	•	•					
904.010164	Alfa 31 0/+120°C 12Vdc		1	•	•					
904.010172	Alfa 31 -50/+150°C		1	•	•					
904.010179	Alfa 31 PT100 0/+250°C		1	•	•					
904.010205	Alfa 31 -50/+150°C 24Vac/dc		1	•	•					
904.010247	Alfa 31 12Vac 0/+100°C		1	•	•					
904.010036	Alfanet 31 -50/+50°C		1	•	•					

Article number	Product name	Description	Sensors	Control functions		Defrost				Alarm relay
				❄	≋	❄0	⚡0	⋈	❄0	❄0	
904.010037	Alfanet 31 0/+100°C		1	•	•						
904.010188	Alfanet 31 DP -10/+90°C		1	•	•						
904.010039	Alfanet 33 -50/+50°C		1								•
904.010103	Alfanet 33 Pt1000 0/+400°C	Alarm thermostat	1								•
904.010169	Alfanet 33 Pt1000 -100/+50°C		1								•
904.010178	Alfanet 33 -50/+150°C		1								•
904.010199	Alfanet 33 DP -10/+90°C		1								•
904.010249	Alfanet 33 DP -10/+90°C 12Vac		1								•
904.010040	Alfanet 35 -50/+50°C	Defrost thermostat	1	•		•			•		
904.010052	Alfanet 35 DP -10/+40°C		1	•		•			•		

Alfanet 45

The Alfa 45 is a complete time control unit for cooler and freezer installations.

The Alfa 45 has the following functions:
- room thermostat with digital read-out
- start delay for evaporator fan
- defrost clock to start the defrost
- end-of-defrost thermostat with time limit
- status indication via LED's on the front

The Alfa 45 is a compact control unit, which can be mounted in the door of a control panel. Via a connection cable the control unit is connected to the relay module, which is mounted inside the switch board. All incoming and out going cables are mounted to this relay module.

The Alfa 45 is controlled by push buttons on the front. Via the internal programming menu, the Alfa 45 can be adjusted to your specific needs and requirements.

The Alfa 45 is supplied with 1 meter connection cable and a comprehensive manual. The required temperature sensors are a SM 811/2m

Technical Specifications

Control unit:

Type:
Alfa 45
Housing:
Black ABS plastic
Dimensions:
38 x 77 x 71,5 mm (hwd)
Panel cut:
28 x 70 mm (hw)
Front:
Polyester IP-65
Range:
-50/+50°C (read-out per 1°C)
Control:
Via push buttons on the front

Relay Module:

Dimensions:
80 x 70 x 85 mm (hwd)
for DIN-rail mounting
Housing:
Black ABS plastic
Supply:
230 Vac, 50/60 Hz (-10/+5%)
Room sensor:
SM 811 (PTC sensor; 1000 Ohm at 25°C)
Defrost sensor:
SM 811 (PTC sensor; 1000 Ohm atj 25°C)
Relay compressor:
SPST contact 250V/16A (C-NO), (not inductive)
Relay defrost:
SPST contact 250V/8A (C-NO), (not inductive)
Relay fan:
SPST contact 250V/8A (C-NO), (not inductive)
Accuracy:
± 0,5% of the range

Article number	Product name	Description	Sensors	Control functions		Defrost					Alarm relay
				❄	〰	❄	⚡	⋈	❄	❄	
904.010054	Alfanet 45A with 1 meter cable	Alarm ther-mostat	2	•		•	•	•	•		•
904.000303	Connection cable 3m instead of 1,5 m										

Alfa 50 series

The Alfa 51 is a compact thermostat for rail mounting with a neutral zone.

The Alfa 51 has a default program with the function cooling/heating and a minimum/ maximum alarm. The thermostat can also be programmed with the function two stage cooling and two stage heating.

The Alfa 51 has a range of -50/+50°C. Temperatures above -10°C can be read-out per 0,1°C

All settings can be done by the push buttons on the front. The internal settings like differential and sensor offset are sufficiently protected, so that they cannot be changed by accident.

The Alfa 51 is supplied directly with 230 Vac. The temperature sensor SM 811 is not included.

As an option a second temperature sensor can be connected, so that the temperature control can be based on the average of the two sensors.

Technical Specifications

Type:
Alfa 51 series
Housing:
Grey ABS plastic
Dimensions:
71 x 90 x 58 mm (wlh)
Connection:
Screw terminals on the side
Front:
Polyester
Supply:
230 Vac, 50/60 Hz (-10/+5%)

Function:
Cooling/heating or 2x cooling or 2x heating (internal programmable)Minimum/maximum temperature alarm
Operations:
By push buttons on the front
Sensor:
SM 811 (PTC sensor; 1000 Ohm at 25°C) (not included) Option for second sensor
Relay:
Cooling SPST contact 250V/5A (NO)
Heating SPST contact 250V/5A (NO)
alarm SPDT contact 250V/5A
(NO/NC)
(all relays one common, not inductive)
Accuracy:
± 0.5% of the range

Article number	Product name	Description	Sensors	Control functions		Defrost					0-10V Output	Alarm relay
904.000500	Alfanet 51 -50/+50°C	3- stage thermostat	2	●	●							●
904.000723	Alfanet 51 0/+100°C		2	●	●							●
904.000832	Alfanet 51 RTDN		2	●	●							●
904.010248	Alfanet 51 PI 24Vdc 0/100°C		1	●	●						●	●
904.010250	Alfanet 51 PI 24Vdc -50/+50		1	●	●						●	●
904.010251	Alfanet 51 PI 230Vac 0/100°C		1	●	●						●	●
904.010252	Alfanet 51 PI -50/+50°C		1	●	●						●	●
904.000556	Alfanet 52 -50/+50°C	Dual thermostat	2	●	●							●
904.000724	Alfanet 52 0/+100°C		2	●	●							●
904.000557	Alfanet 53	Alarm thermostat	1		●							●
904.000733	Alfanet 55 RTDF	Cooling thermostat	2	●		●	●	●	●	●		

Alfa 70 series

The Alfa 70 is an extensive range of thermostats.

The Alfa 70 series has as range from -50/+50°C or 0/+100°C. Temperatures higher than -10°C can be read out per 0,1°C.

All settings can be made by the push buttons on the front. The internal settings like differentials and sensor offsets are protected so changing by accident will not be possible.

The Alfa 70 series have a supply voltage of 12 Vac.
The required temperature sensor is a SM 811.

Technical Specifications

Type:
Alfa 70 series
Housing:
Black ABS plastic
Dimensions:
35 x 77 x 71,5 mm (hbd)
Connections:
Screw terminals
Front:
Polyester
Supply:
12 Vac, 50/60 Hz (-10/+5%)

Control:
Via push buttons on the front
Sensors:
SM 811/ (PTC sensor; 1000 Ohm at 25°C) (not included)
Relays:
Cooling SPST contact 250V/5A (NO)
Heating SPST contact 250V/5A (NO)
alarm SPDT contact 250V/5A (NO/NC) (One common, not inductive)
Accuracy:
± 0.5% of the range

Article number	Product name	Description	Sensors	Control functions		Defrost					0-10V Output	Alarm relay
904.000627	Alfanet 70 AI input: 4/20mA	Universal display										
904.000679	Alfanet 70 (°C)											
904.000812	Alfanet 70 AI input: 0/10Vdc											
904.010217	Alfanet 70 Clock 12VAC/DC	Week clock										
904.000412	Alfa 71 SPEC 0/10 V OUT MS	Thermostat	1	•	•						•	•
904.000541	Alfa 71 MOD		1	•	•							•
904.000800	Alfa 71 PI Solid State 0/10Vdc PI exc		1	•	•						•	•
904.000837	Alfa 71 S-PI 0/+100°C.		1	•	•						•	•
904.000840	Alfa 71 MOD 0/+100°C.		1	•	•							•
904.000930	Alfa 71 PI SSR 24Vdc		1	•	•						•	•
904.010231	Alfa 71 PI -10/+90°C		1	•	•						•	•
904.000610	Alfanet 71 Remote	Universal display										
904.000737	Alfanet 71 VS-PI -20/+20°C(01)	Differential thermostat	2	•	•						•	
904.000873	Alfanet 71 AI 0-20/4-20mA 4dig	Universal display										

Article number	Product name	Description	Sensors	Control functions		Defrost					0-10V Output	Alarm relay
				❄	≋							
904.000893	Alfanet 71 VS-PI -20/+20°C(01)	3-stage thermostat	1	●	●						●	●
904.000903	Alfanet 71 0/100°C		2	●	●							●
904.000933	Alfanet 71 VS 0/20°C (01)		2	●	●							●
904.010214	Alfanet 71 PI 0/+100°C		1	●	●						●	
904.010227	Alfanet 71 -50/+50°C		2	●	●							●
904.010229	Alfanet 71 0/+100°C		2	●	●							●
904.010232	Alfanet 71 PI -50/+50°C		1	●	●						●	
904.010240	Alfanet 71 RTDN		2	●	●							●
904.000376	Alfa 72 -50/+50°C	Dubble thermostat	2	●	●							●
904.000578	Alfa 72 VS 0/+20°C (01)	Differential thermostat	2	●	●							●
904.000579	Alfa 72 0/+100°C (01)	Dubble thermostat	2	●	●							●
904.000583	Alfa 72 VS 0/+20°C (01)	Differential thermostat	2	●	●							●
904.000905	Alfa 72 -10/+90°C	Dubble thermostat	2	●	●							●
904.000925	Alfa 72 VS 0/+20°C (01)	Differential thermostat	2	●	●							●
904.000564	Alfanet 72 12Vac	Dubble thermostat	2	●	●							●
904.000565	Alfanet 73 12Vac	Alarm thermostat	1		●							●
904.000613	Alfanet 75 Remote	Universal display										
904.010177	Alfanet 75 RTDF	Cooling thermostat	2	●		●	●	●	●	●		

Alfa 90 series

The Alfanet 95 is a complete controller for cool/freeze installations.

The Alfanet 95 has the following functions
- room thermostat with digital read-out
- start delay for evaporator fan
- defrost clock to start the defrost on interval base or real-time base
- end-of-defrost thermostat with time limit
- off-cycle, electrical or hot-gas defrost
- possibility for defrost from two evaporators each with their own end-of- de frost sensor

The Alfanet 95 has a range of -50/+50°C. Temperatures above -10°C can be read-out per 0,1°C.

The Alfanet 95 is a compact control unit, which can be mounted in the door of a switch board. Using a connection cable the control unit is connected to the relay module, which is mounted inside the switch board. All incoming and outgoing cables, except the network can be connected to the I/O module.

All settings can be done by internal parameters.

The Alfanet 95 has a network connection for read-out and data logging on the Alfanet PC
software.

The Alfanet 95 is supplied directly with 230Vac.

Other supply voltages are available on request.

One connection cable from 1 meter is included.

Technical Specifications

Cotnrol unit:

Type:
Alfa 95 serie
Housing:
Black ABS plastic
Dimensions:
38 x 77 x 71,5 mm (hwd)
Panel cut:
28 x 70 mm (hb)
Front:
Polyester IP-65
Range:
-50/+50°C (Read-out per 1°C)
Control:
Via push buttons on the front

Relay Module:

Dimensions:
80 x 70 x 85 mm (hbd)
for DIN-rail mounting
Housing:
Black ABS plastic
Supply:
230 Vac, 50/60 Hz (-10/+5%)
Room sensor:
SM 811 (PTC sensor; 1000 Ohm atj 25°C)
Defrost sensor:
SM 811 (PTC sensor; 1000 Ohm at 25°C)
Relay compressor:
SPST contact 250V/16A (C-NO), (not inductive)
Relay defrost:
SPST contact 250V/8A (C-NO), (not inductive)
Relay fan:
SPST contact 250V/8A (C-NO), (not inductive)
Accuracy:
± 0,5% of the range

Article number	Product name	Description	Sensors	Control functions	Defrost					Alarm relay
				❄ 〰						
904.000648	Alfanet 95 with Door Contact	Alarm thermostat	3	•	•	•	•	•	•	•

Alfa 700 series

The Alfa 700 series is a digital thermometer or thermostat in a complete wallmount housing.

The controllers from the Alfa 30, 40, 70 and 90 series can be build in.

There are several options among with: clear door, extra switch for o.a. ventilation, lighting, power relay or printing the company logo on the front.

The Alfa 700 series needs a power supply of 230Vac. On request other supply voltages can be delivered.

Product name
Alfanet 700 series
Surcharges Alfa 700 & Alfanet 700 series
Door
Additional switch
Power relays 25A/250 Aac (2pk/1,5kw)
Relais
Extra large house

Jumbo display

The Jumbo Display is a digital 3-digit display with 10 cm large segments. The Jumbo Display is therefore useful as temperature display in large areas. The display is built in a plastic housing for wall mounting. A panel mounting version is also available. The polycarbonate front can be provided with your company logo or a special print. Cable input on the back or bottom side and simple mounting on the connection terminals.

The Jumbo Display has a Pt-100 temperature sensor input or an analogue input. The Jumbo Display is supplied with a temperature range of -10/+30°C with read-out per 0.1°C. Versions with other ranges are available on request.

Technical Specifications

Type:
Jumbo Display
Housing:
Wall mounting
Dimensions:
404 x 346 x 112 mm (whd)
Front:
polycarbonate, IP-44
Connections:
Cable input on the back or bottom side on marked screw terminals
Display:
digital 3-digit display with 10 cm large numbers

Supply:
230 Vac, 50/60 Hz (-10/+5%)
Range:
-10/+30°C, read-out standard per 0,1°C, other ranges only on request available
Input:
Pt-100 3-wire according to DIN/IEC 751
0/+5 Vdc measuring signal
0/+10 Vdc measuring signal
4-20mA measuring signal
Accuracy:
± 0.5% of the range

Special versions available on request

Article number	Productname
905.000088	Jumbo display -10/30°C Pt-100
905.000090	Jumbo display -30/30°C Pt-100
905.000098	Jumbo display -40/40°C. Pt-100
905.000099	Jumbo display -40/40°C 1-5V
905.000100	Jumbo display -10/50°C 0-10V

Templogger

Technical Specifications

Type:
Alfanet templogger
Housing:
Grey plastic
Dimensions:
106 x 90 x 58 mm (whd)
Supply:
12 Vdc (Max. 45 mA)
Temp. Range:
-50,0 / +50,0°C per 0,1°C
Temp. sensors:
Pt1000, 2-wire (DIN/IEC 751)
Communication:
ALFANET RS485 - Network
Network address:
110.125
Operation temp.:
-20 / +50°C
Store temp.:
-20 / +60°C
Humidity:
10 / 90% RH not condensing
Accuracy:
± 0,5% of the range

The ALFANET TEMPLOGGER has a maximum of 16 Pt1000 2-wire sensors; that can be connected to log temperatures. On any one ALFANETWORK (RS485) system, a maximum of 16 ALFANET TEMPLOGGERS can be used, (so a maximum of 16x16=256 sensors can be logged).

For each temperature sensor a minimum and a maximum alarm set point can be programmed, including a delay time for each alarm.
The log-data can be shown on a PC with VASP or Alfanet.

Article number	Product name
901.000419	Alfanet Templogger -100/+50°C
901.000447	Alfanet Templogger -50/+150°C

SM 800/808

Technical Specifications

Type:
SM 800
Sensor:
Pt-100 3-wire according DIN/IEC 751
Range:
-100/+250°C
Dim. sensor:
ø6 x 50 mm
Material sensor:
rvs 316

Cable:
- Standard grey PVC (max. 70°C)
- Silicon cable (max. 180°C)
- Teflon cable (max.250°C)

Options:
- Shielded cable
- Water tight connection with schrink sleeve
- 1/4 BSP connection
- Pt-500
- Pt 1000

Special models are often possible on request

The SM 800 range comprises a number of standard 3-wire Pt-100 temperature sensors according to DIN/IEC 751. The sensor is mounted in a stainless steel bulb of 6 x 65 mm. The sensors are supplied with a 2 meter cable. Other cable lengths are available on request.

SM 800/2m:
Standard Pt-100 sensor with 2 meter grey PVC cable (max. 70°C), wires 3x 0,25 mm2.

SM 800/2m WD:
As SM 800/2m, but with a waterproof seal between the sensor and the bulb with a shrink seal.

SM 800S/2m:
As SM 800/2m, but with shielded cable.

SM 800/2m SILICON:
As SM 800/2m, but with silicon cable (max. 180°C).

SM 800/2m TEFLON:
As SM 800/2m, but with Teflon cable (max. 250°C).

SM 800CN/2m:
As SM 800/2m, but with 1/4 BSP thread.

SM 800LM/10 m:
Special sensor for quick temperature measurement in air. Delivered with 10 m PVC cable. The stainless steel bulb is perforated for good air flow.

Brass or stainless steel pockets with PG7 swivel can be supplied. Standard sizes 9 x 60 mm, with 1/2 BSP thread. The SM 800 range is also available with Pt-500 or Pt-1000 element. Standard 3-wire or non standard 4-wire Pt-100 can be supplied. The SM 800 is also manufactured as double Pt-100, where two temperature sensors are mounted in the same bulb.

Article number	Product name	Description
810.010001	SM 800/2M 3-Wire	PT100
910.010095	SM 800/2M 3-Wire Teflon	PT100
810.010050	SM 800/2M 3-Wire Silicone	PT100
810.010018	SM 800/5M 3-Wire	PT100
910.010337	SM 800/5M 3-Wire Teflon	PT100
910.010022	SM 800/5M 3-Wire Silicone	PT100

Article number	Product name	Description
810.010020	SM 800/10M 3-Wire	PT100
910.010421	SM 800/10M 3-Wire Teflon	PT100
910.010292	SM 800/10M 3-Wire Silicone	PT100
910.010052	SM 800/15M 3-Wire	PT100
910.010531	SM 800/15M 3-Wire Teflon	PT100
910.010442	SM 800/15M 3-Wire Silicone	PT100
810.010087	SM 800/20M 3-Wire	PT100
910.010841	SM 800/20M 3-Wire Teflon	PT100
910.010112	SM 800/20M 3-Wire Silicone	PT100
910.010058	SM 800/2M 4-Wire	PT100
910.010202	SM 800/2M 4-Wire Silicone	PT100
910.010320	SM 800/5M 4-Wire	PT100
910.010408	SM 800/5M 4-Wire Silicone	PT100
910.010171	SM 800/10M 4-Wire	PT100
910.010753	SM 800/15M 4-Wire	PT100
910.010206	SM 800/20M 4-Wire	PT100
910.010854	SM 800/20M 4-Wire Silicone	PT100
910.010063	SM 800/2M WD 4-Wire	PT100
910.010768	SM 800/2M WD 4-Wire Silicone	PT100
910.010189	SM 800/5M WD 4-Wire	PT100
910.010250	SM 800/5M WD 4-Wire Silicone	PT100
910.010207	SM 800/10M WD 4-Wire	PT100
910.010846	SM 800/10M WD 4-Wire Silicone	PT100
910.010510	SM 800/15M WD 4-Wire	PT100
810.010003	SM 800S/2M Shielded 3-Wire	PT100
910.010066	SM 800S/2M WD Shielded 3-Wire	PT100
910.010133	SM 800S/5M Shielded 3-Wire	PT100
910.010236	SM 800S/5M WD Shielded 3-Wire	PT100
910.010029	SM 800S/10M Shielded 3-Wire	PT100
910.010067	SM 800S/10M WD Shielded 3-Wire	PT100
910.010046	SM 800S/15M Shielded 3-Wire	PT100
910.010065	SM 800S/15M WD Shielded 3-Wire	PT100
910.010082	SM 800S/20M Shielded 3-Wire	PT100
910.010105	SM 800S/20M WD Shielded 3-Wire	PT100

Article number	Product name	Description
910.010047	SM 800CN/2M 1/4”BSP 3-Wire	PT100
910.010042	SM 800SCN/2M 1/4”BSP Shielded 3-Wire	PT100
910.010036	SM 800LM/2m Air 3-Wire	PT100
910.010002	SM 800/2M WD 3-Wire	PT100
910.010023	SM 800/5M WD 3-Wire	PT100
910.010025	SM 800/10M WD 3-Wire	PT100
910.010053	SM 800/15M WD 3-Wire	PT100
910.010087	SM 800/20M WD 3-Wire	PT100
910.010135	SM 808/2M NTC 10K 2-Wire	10K NTC
910.010500	SM 808/5M NTC 10K 2-Wire	10K NTC
910.010271	SM 808/2M WD NTC 10K 2-Wire	10K NTC
810.070934	SM 808/5M WD NTC 10K 2-Wire	10K NTC

SM 8000

Technical Specifications

Type:
SM 8000
Supply element:
Pt-1000 3-Wire
Accuracy:
DIN/IEC 751
Range:
-100/+250°C

Dimention sensor:
ø6 x 50 mm
Material sensor:
Stainless steel 316

Connection cable
- standard gray PVC (max. 70°C)
- silicone cord (max. 180°C)
- Teflon cable (max. 250°C)

Options
- screened cable
- watertight sealing by means of shrink sleeve
- 1/4 BSP male thread
- 2-conductor Pt-1000
- 4-conductor Pt-1000
- Double Pt-1000

Special versions available upon request.

The SM 8000 series consists of a series of standard 3-conductor Pt-1000 temperature transducer according to DIN/IEC 751. The sensor is molded into a stainless steel sleeve of ø6 x 50 mm. As standard the probes are supplied with 2 meter cable. Other cable lengths are available on request.

SM 8000/2m
Standard Pt-1000 probe with 2 meter grey
PVC cable (max. 70°C), conductors 3x 0,25 mm2.

SM 8000/2m WD
As SM 8000/2m, but with a watertight seal between cable and sensor sleeve using heatshrink.

SM 8000S/2m
As SM 8000/2m but with shielded cable.

SM 8000/2m SILICONES
As SM 8000/2m but with silicone cord (max. 180°C).

SM 8000/2m TEFLON
As SM 8000/2m, but with Teflon cord (max. 250°C).

SM 8000CN/2m
As SM 8000/2m but with 1/4BSP external thread.

SM 8000LM/10 m
Special probe for fast temperature
in air. Standard delivered with 10 m PVC cable.
supplied as standard. The stainless steel sleeve has holes
for good air flow.

A brass or stainless steel immersion tube with M12 swivel can be supplied as an accessory. Standard dimensions ø9 x 60 mm, fitted with
1/2 BSP external thread. In addition to the standard 3-conductor, a 2-conductor or 4-conductor Pt-1000
or 4-conductor Pt-1000 can be supplied. Finally, the SM 8000 is also available as a dual Pt-1000 with two temperature probes mounted in the same
are mounted in the same sleeve.

Article number	Product name	Description
810.010201	SM 8000/2M 2-Wire	PT1000
910.010490	SM 8000/5M 2-Wire	PT1000
910.010491	SM 8000/10M 2-Wire	PT1000
910.010492	SM 8000/15M 2-Wire	PT1000
910.010493	SM 8000/20M 2-Wire	PT1000
910.010708	SM 8000/2M WD 2-Wire	PT1000
910.010198	SM 8000/2M Teflon 3-Wire	PT1000
910.010501	SM 8000/2M Siliconen 3-Wire	PT1000
910.010790	SM 8000/5M WD 2-Wire	PT1000
910.010216	SM 8000/5M WD Siliconen 3-Wire	PT1000
910.010791	SM 8000/10M WD 2-Wire	PT1000
910.010738	SM 8000/10M Siliconen 3-Wire	PT1000
910.010368	SM 8000/10M WD Siliconen 3-Wire	PT1000
910.010330	SM 8000/15M WD 2-Wire	PT1000
910.010222	SM 8000/15M Siliconen 3-Wire	PT1000
910.010808	SM 8000/15M WD Siliconen 3-Wire	PT1000
910.010587	SM 8000/20M WD 2-Wire	PT1000
810.010365	SM 8000/2M 3-Wire	PT1000
810.010188	SM 8000/5M 3-Wire	PT1000
910.010129	SM 8000/10M 3-Wire	PT1000
910.010015	SM 8000/15M 3-Wire	PT1000
810.010343	SM 8000/20M 3-Wire	PT1000
910.010365	SM 8000/2M WD 3-Wire	PT1000
910.010188	SM 8000/5M WD 3-Wire	PT1000
910.010221	SM 8000/10M WD 3-Wire	PT1000
910.010561	SM 8000/15M WD 3-Wire	PT1000
910.010343	SM 8000/20M WD 3-Wire	PT1000
910.010381	SM 8000S/2M Shielded 3-Wire	PT1000
910.010450	SM 8000S/2M WD Shielded 3-Wire	PT1000
910.010554	SM 8000S/5M Shielded 3-Wire	PT1000
910.010774	SM 8000S/5M WD Shielded 3-Wire	PT1000
910.010567	SM 8000S/10M WD Shielded 2-Wire	PT1000

910.010707	SM 8000S/15M Shielded 3-Wire	PT1000
910.010769	SM 8000S/15M WD Shielded 3-Wire	PT1000
910.010814	SM 8000S/20M WD Shielded 3-Wire	PT1000

SM 811

Technical Specifications

Type:
SM 811/2m
Sensor:
PTC sensor, 2-wire, 1000 Ohm/25°C
Range:
-50/+150°C
Sizes of bulb:
Y 6 x 65 mm (hb)
Material Bulb:
Stainless steel 316

Cable:
- Standard grey PVC (max. 70°C)
- Silicon cable (max. 150°C)
Options:
Waterproof shrink seal

Special versions available on request

The SM 811 is a standard 2-wire PTC sensor of VDH Products. This chip sensor has a resistance of 1000Ω at 25°C. The sensor is mounted in a stainless steel bulb of Y6 x 65 mm, with a cable of 2 meters. Other cable lengths are available on request.

SM 811/2m:
Standard PTC sensor with 2 meter grey PVC cable (max. 70°C), wire 2x 0,25 mm2.

SM 811/2m WD:
As SM 811/2m, but with a waterproof seal between the sensor and bulb by shrink seal.

SM 811/2m SILICON:
As SM 811/2m, but with silicon cable (max. 150°C).

SM 812/2m:
As SM 811/2m, but now with a 2kΩ PTC chip sensor. This has a resistance of 2000Ω at 25°C.

A brass or stainless steel pocket with PG7 swivel can be supplied. Standard sizes Y9 x 60 mm, with 1/2 BSP thread.

Article number	Product name	Description
810.010014	SM 811/2M 2-Wire	1K PTC
910.020082	SM 811/2M Teflon 2-Wire	1K PTC
910.020009	SM 811/2M Silicone 2-Wire	1K PTC
910.020086	SM 811/2M WD Silicone 2-Wire	1K PTC
810.020005	SM 811/5M 2-Wire	1K PTC
910.020018	SM 811/5M Silicone 2-Wire	1K PTC
910.020288	SM 811/5M WD Silicone 2-Wire	1K PTC
810.020001	SM 811/10M 2-Wire	1K PTC
910.020097	SM 811/10M Silicone 2-Wire	1K PTC
810.020023	SM 811/15M 2-Wire	1K PTC
910.020076	SM 811/15M Teflon 2-Wire	1K PTC

Article number	Product name	Description
910.020300	SM 811/15M Silicone 2-Wire	1K PTC
810.020006	SM 811/20M 2-Wire	1K PTC
910.020083	SM 811/20M Silicone 2-Wire	1K PTC
910.020030	SM 811S/2M Shielded 2-Wire	1K PTC
910.020063	SM 811S/10M Shielded 2-Wire	1K PTC
910.020059	SM 811S/5M WD Shielded 2-Wire	1K PTC
910.020014	SM 811S/5M Shielded 2-Wire	1K PTC
910.020284	SM 811S/10M WD Shielded 2-Wire	1K PTC
910.010177	SM 811S/15M WD Shielded 2-Wire	1K PTC
910.020068	SM 811S/15M Shielded 2-Wire	1K PTC
910.010406	SM 811S/20M Shielded 2-Wire	1K PTC
910.010037	SM 811S/20M WD Shielded 2-Wire	1K PTC
910.020013	SM 811/2M WD 2-Wire	1K PTC
910.020008	SM 811/5M WD 2-Wire	1K PTC
910.020010	SM 811/10M WD 2-Wire	1K PTC
910.020002	SM 811/15M WD 2-Wire	1K PTC
910.020035	SM 811/20M WD 2-Wire	1K PTC

SM 820

Technical Specifications

Type:
SM 820
Sensor:
Pt-100-3-Wire according to DIN/IEC 751

Materiaal:
Stainless steel 304
Length:
155 mm
Cable:
- Silicon cable, 3-wire, 5 meter

Special versions are available on request

The SM 820 is made solid and designed to measure temperature in e.g. frozen meat.

The sensor is made of stainless steel, very solid and heavy designed. The SM 820 has a smooth surface for an easy cleaning. The piercing part is conic, so that it is easy to release a frozen sensor.

The two side mounted grips are solid and used to put in and take out the sensor from the frozen product. If necessary a wooden hammer can be used.

The connection cable is made of smooth silicon cable, with remains flexible till -50°C. Standard length is 5 meters.

As sensing element a Pt-100 3-wire according to DIN/IEC 751 is used. This element is poured in to prevent damage as good as possible, also at rough use. Other models and/or cable length are available on request.

Article number	Product name	Description
910.010024	SM 820/5M BK SIL L=155mm, 3-Wire Pt-100	Frozen meat probes
910.030011	SM 820/5M SIL L=155mm, 3-Wire Pt-100 Impact head	Frozen meat probes
910.010142	SM 820/10M BK SIL L=155mm, 3-Wire Pt-100	Frozen meat probes
910.030030	SM 820/10M SIL L=155mm, 3-Wire Pt-100 Impact head	Frozen meat probes
910.010564	SM 820/15M BK SIL L=155mm, 3-Wire Pt-100	Frozen meat probes
910.010515	SM 820 BK Z.SNOER L=155mm, 3-Wire Pt-100	Frozen meat probes
910.030017	SM 8200/2M BK SIL L=155mm, 2-Wire Pt-1000	Frozen meat probes
910.030007	SM 8200/5M BK SIL L=155mm, 3-Wire Pt-1000	Frozen meat probes
910.030012	SM 8200/5M SIL L=155mm, 3-Wire Pt-1000 Impact head	Frozen meat probes
910.030013	SM 8200/10M SIL L=155mm, 3-Wire Pt-1000 Impact head	Frozen meat probes
910.030005	SM 8200/15M SIL L=155mm, 3-Wire Pt-1000 Impact head	Frozen meat probes

SM 830

Technical Specifications

Type:
SM 830 series
Sensor:
Pt -100 3-wire
Accuracy:
DIN/IEC 751
Housing:
ANSI 316
Connection head:
ANSI 304
Cable input:
PG9 swivel
Protection:
IP-55
Models:
Various models (see drawings)

Type:
SM 8300 series
Sensor:
Pt -1000 3-wire
Accuracy:
DIN/IEC 751
Housing:
ANSI 316
Connection head:
ANSI 304
Cable input:
PG9 swivel
Protection:
IP-55

The SM 830/8300 series are solid temperature sensors, which are available in various models.

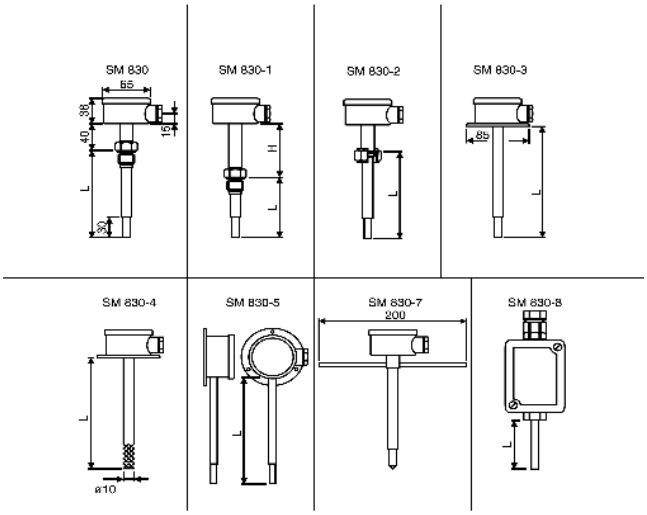
The construction is made of stainless steel and available in various designs for almost every application. The sensors have a stainless steel connection head and a swivel for the cable input.

Sealing of the various models is at least IP-55 and on request a higher tightness is available. The sensors are available with various sensing elements, mostly a Pt-100 element or a Pt-1000 element.

As standard 3-wire system or if required a 4-wire system. The models with a Pt-100 element are the SM 830 series; the models with a Pt-1000 element are the SM 8300 range.

All sensors meet the DIN/IEC 751 norms. If required more accurate models are available.

Models:
SM 830 = sensor with pocket,
½ BSP, short neck state length L
SM 830/1 = sensor with pocket,
½ BSP, long neck state length H and L
SM 830/2 = sensor with pocket,
½ BSP, with turn able swivel, state length L
SM 830/3 = channel sensor with flange, state length L
SM 830/4 = channel sensor with flange, open model, state length L
SM 830/5 = wall mounting sensor with flange, state length L
SM 830/7 = piercing sensor for agriculture products, state length L
SM 830/8 = sensor with terminal box, state length L



Article number	Product name	Description
910.060005	SM 830 1/2”BSP L=100mm	Screw sensor
910.060004	SM 830/1 1/2”BSP L=100 H=100mm	High temperature
910.060009	SM 830/2 1/2”BSP WART. L=100mm	Screw sensor
910.060013	SM 830/3 L=100mm ø8mm Stand.	Canal sensor
910.060362	SM 830/4 L=200mm.	Air sensor
910.010008	SM 830/5 L=100mm	Surface mount sensor
910.010006	SM 830/7 L=500mm.	Puncture sensor
910.010005	SM 830/7 L=1,5M	
910.010028	SM 830/8 L=100mm	Sensor with connection box
910.060001	SM 8300 pt1000	Air sensor
910.060035	SM 8300 1/2”BSP L=100mm pt1000	High temperture
910.060376	SM 8300/3 L=300mm ø8mm pt1000	Canal sensor
910.060194	SM 8300/5 L=100mm pt1000	Surface mount sensor
910.060377	SM 8300/7 2-wire L=200mm pt1000	Puncture sensor
910.060379	SM 8300/7 2-wire L=500mm pt1000	
910.060378	SM 8300/7 2-wire L=800mm pt1000	
910.060382	SM 8300/7 3-v L=500mm pt1000	
910.060383	SM 8300/7 3-wire L=600mm pt1000	
910.060055	SM 8300/7 3-wire L=1000mm pt1000	

SM 850/SM 8500

Technical Specifications

Type:
SM 850 series
Proba length SM 850:
Stainless steel 316, ø6 x 170mm, round tip
Insert SM 850/1:
Stainless steel 316, ø4 x 150mm, sharp tip
Grip:
Black plastic
Connection:
Via coiled lead to connection box 502

Sensor element:
Pt-100 3-wire conform DIN/IEC 751
Range:
-50/+50ºC
Ambient temperature:
0/+40ºC

Special versions in both design and/or temperature sensor are often available on request.

The SM 850 is a temperature sensor for measurement in products. The sensor has a stainless steel insertion probe, which is equipped with a round tip.

The sensor is equipped with a black plastic grip with a 3-pole screw connector for connection with an optional silicone coiled lead.

The sensor is available in the following versions:

SM 850: Diameter of 6mm and equipped with a rounded tip to prevent product damage. The probe length is 170mm. A Pt-100 3-element is used as a sensor. applied according to DIN / IEC 751. The sensor is ideally suited for temperature measurement between, for example, fruit, pasta, etc.

SM 8500:This sensor is the same as the SM 850, but equipped with a Pt-1000 element instead of a Pt-100.

SM 850/1: Diameter of 4mm and equipped with a sharp tip for easy piercing into the product. The probe length is 150mm. A Pt-100 3-element is used as a sensor in accordance with DIN / IEC 751. The sensor is ideally suited for temperature measurement between, for example, fruit, pasta, etc.

SM 8500/1: This sensor is the same as the SM 850/1, but equipped with a Pt-1000 element instead of a Pt-100.

The sensors can optionally be supplied with the corresponding silicone coiled lead and connection box (type 502). The orange silicone coiled lead is 1.5m long (6m extended).

Article number	Product name	Description
810.040007	SM 850 L=170mm Pt-100	Puncture sensor blunt tip ø6 mm
810.040006	SM 850/1 L=150 mm Pt-100	Puncture sensor sharp tip ø4 mm
810.040010	SM 8500 L=170mm ø6mm Pt-1000	Puncture sensor blunt tip ø6 mm
810.040026	SM 8500/1 L=150mm ø4mm Pt-1000	Puncture sensor sharp tip ø4 mm
910.040017	SM 851 L= 170m ptc	Puncture sensor blunt tip ø6 mm
810.040038	Curl cord shielded. 2x 3-pole connector	
910.100083	Connection box 502	

SM 860

Technical Specifications

Type:
SM 860 series
Proba length:
Stainless steel 3054,
ø8 x 400mm, round tip
Grip:
Red plastic
Sensor element:
Pt-100 3-wire conform DIN/IEC 751
Range:
0/+50°C

The SM8600 is supplied with a Pt1000 element instead of a Pt-100 element.

Special versions in both design and / or temperature sensor are often available on request.

The SM 860 is a temperature sensor for manual use, developed to measure the temperature of agricultural products such as potatoes, onions, flower bulbs, etc.

The stainless steel sensor has a length of 400 mm and a diameter of 8 mm. The grip is made of red plastic and has a PG-7 swivel.
The sensor is supplied with 5m PVC cable as standard (3x1mm2)

A Pt100, 3-wire according to DIN / IEC 751 is used as measuring sensor.

Article number	Product name
910.060027	SM 860/5M L=400mm
910.060138	SM 8600/5M L=400mm

TR 830

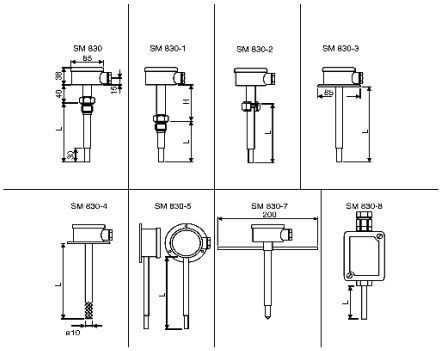
TR 830 range (4-20 mA transmitter built in)

The design and facilities of the TR-830 are similar to those of the SM 830 range, with the difference that a 4-20mA transmitter is built into the connector head of the TR-830.

The TR-830 is available in several temperature ranges, and also with different output signals. Minimum span is 25°C.

The sensors are available with a Pt-100 element or a Pt-1000 element. The model with the Pt-100 element is coded as type TR-830, and with the Pt-1000 as type TR-8300.

For further information please contact the sales department of VDH Products B.V.



Technical Specifications

Type:
TR 830 series
Power supply:
8/35 Vdc
Sensor:
Pt -100 3-wire
Accuracy:
DIN/IEC 751
Housing:
Stainless steel [rvs 316]
Connector head:
Stainless steel [rvs 304]
Connection:
PG9 swivel
Seal:
IP-55
Model:
Various models available

Type:
TR 8300 series
Power supply:
8/35 Vdc
Sensor:
Pt -1000 3-wire, in accordance with DIN 43760
Accuracy:
DIN/IEC 751
Housing:
Stainless steel [rvs 316]
Connector head:
Stainless steel [rvs 304]
Connection:
PG9 swivel
Seal:
IP-55
Model:
several models available

Special models (for both design and temperature sensor) are often available. Please contact our sales department for advice.

Article number	Product name	Description
910.060156	TR 830 1/2"BSP 100mm 0/+100°C Pt-100	Screw sensor
910.060157	TR 830 1/2"BSP 100mm -40/+60°C Pt-100	
910.060189	TR 830 1/2BSP 100mm -40/+160°C Pt-100	
910.060203	TR 830 1/2"BSP 100mm -50/+150° Pt-100	
910.060289	TR 830 1/2"BSP 100mm -50/+50°C Pt-100	
910.060281	TR 830/1 1/2"BSP 100mm -50/+50 Pt-100	High temperature
910.060201	TR 830/5 100mm -30/+60°C 4/20 Pt-100	Surface mounted sensor
910.060202	TR 830/5 100mm -10/+40°C 4/20 Pt-100	
910.060256	TR 830/5 100mm -10/+30°C 4/20 Pt-100	
910.060284	TR 830/5 100mm -40/+40°C 4/20 Pt-100	
910.060317	TR 830/5 100mm 0/+100°C 4/20 Pt-100	

Sensor additional prices

Article number	Product name	Description
	Surcharges temperature sensor cables	
	PVC cable	3-wire (br/wi/gr),0.25 mm2, ø5 mm per meter
	PVC kabel shielded	3-wire (br/wi/gr), 0.25 mm2, ø5 mm per meter
	PVC cable	4-wire (br/wi/gr/ye), 0.25 mm2, ø7 mm per meter
	PVC kabel shielded	4-wire (br/wi/gr/ye), 0.25 mm2, ø7 mm per meter
	Siliconen cable	3-wire (rd/wi/wi), 0.25 mm2 per meter
	Teflon cable	3-wire (wi/rd/rd), 0.25 mm2 per meter
	Surcharges temperature sensors	
	Waterproof version	
	Pt-100 1/2 DIN	Class A
	Pt-100 1/3 DIN	
	2x Pt-100	Dubbel Pt-100 sensor
	Pt-100 4-draads	
	SM 830/8300 series extra price per 100 mm	
	4 - 20 mA transmitter for SM830 series	
910.100003	Stainless steel Immersion Tube 1/2"BSP 60mm ø9	
910.100004	Brass Messing immersion tube 1/2"BSP L=60mm ø9	

PSC 160

Technical Specifications

Type:
PSC160
Housing:
Completely stainless steel 304 with a waterproof bayonet catch
Diameter:
100 mm for the PSC100
160 mm for the PSC160
Range:
-10/+60°C or 0/+100°C, other ranges available on request
Dial:
Aluminium, white with black print
Measuring system:
Organic fluid expansion in a wrapped bourdon tube, without using a transmission system
Sensor:
Stainless steel 304, 1000 x ø12 mm, provided with a sharp point. Other length on request available
Accuracy:
± 2% of the range

The PSC 160 produce thermometers are fully made out of stainless steel and designed for temperature measurement for agriculture products like potatoes, grains, etc.

The construction is very solid and stable. The instrument is provided with two hand grips, which are mounted under the housing to a massive stainless steel block. Due to this construction no forces are transferred to the housing during the piercing of the products.

The sensor has a sharp point, which makes the piercing easier.

As measuring element a direct drive bourdon tube is used, without any parts subject to wear. This construction is well protected against stocks.

Next to the model is a housing of 160 mm, also a PC100 thermometer is available with a housing of 100 mm.

As standard the thermometer is supplied with a sensor length of 1 meter. Other lengths are available upon request.

Finally the dial can be provided with your company logo.

Article number	Product name	Description	
911.000265	PSC100 -10/+60°C. L=1M	Product thermometer, ø100 mm	L=1000 mm
911.000180	PSC100 0/100°C. L=1M		L=1000 mm
	PSC100		L=1500 mm
	PSC100		L=2000 mm
911.000007	PSC160 -10/+60°C. L=1M	Product thermometer, ø160 mm	L=1000 mm
911.000237	PSC160 0/+100°C. L=1M		L=1000 mm
	PSC160		L=1500 mm
	PSC160		L=2000 mm

TK085

Technical Specifications

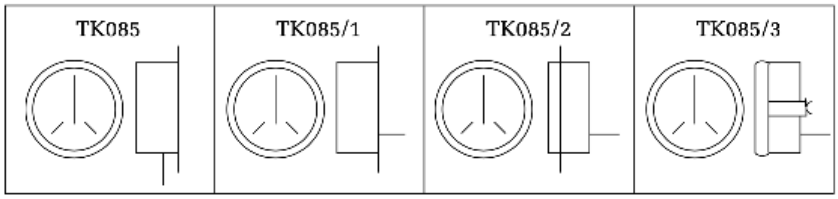
Temperature:
By a screw driver on the back correction of the housing
Capillary:
Flexible black plastic with coper core, standard length 1500 mm (max 15 meter) diameter 3,5 mm
Measuring:
Organic fluid expansion in a wrapped bourdon tube, without using a transmission system.

Also available with temperature comensation
Sensor:
Brass 70 x ø6,6 mm
Range:
-50/+50ºC per 1ºC
-50/0ºC in blue
0/+50ºC in red
Accuracy:
± 2% of the range

This range of thermometers is specially designed for use on cold rooms and other refrigeration installations. The type TK085-1 has a unique timeless housing, of which the visible part is made of seamless polished stainless steel.

This makes it possible for the capillary connection to be mounted universally from the rear or the bottom of the housing. This construction is standard on size 63 and 100 mm.

The measuring element is a direct drive bourdon tube, without any parts subject to wear. The capillary is made of smooth plastic with a standard length of 1500 mm.



TK085:
160 mm - housing of stainless steel, provided with a waterproof bayonet catch ø250 mm - housing of steel, black muffled, with a chrome ring, on request complete stainless steel with waterproof bayonet catch.

TK085-1,2 & 3 :
Housing of stainless steel in one part with back flange, inner housing of aluminium.

Article number	Product name	Description
911.000002	TK085 63 -50/+50°C 1,5M KS	ø63 mm
911.000001	TK085 100 -50/+50°C 1,5M KS	ø100 mm
911.000003	TK085 160 -50/+50°C 1,5M KS	ø160 mm
911.000251	TK085 250 -50/+50°C 1.5M KS	ø250 mm
911.000006	TK085/1 63 -50/+50°C. 1,5M	ø63 mm
911.000005	TK085/1 100 -50/+50°C. 1,5M	ø100 mm
911.000004	TK085/1 160 -50/+50°C. 1,5M	ø160 mm
911.000136	TK085/1 250 -50/+50°C 1.5M KS	ø250 mm

Article number	Product name	Description
911.000054	TK085/2 63 -50/+50°C 3M KS	ø63 mm
911.000140	TK085/2 100 -50/+50°C 1,5M KS	ø100 mm
911.000121	TK085/2 160 -50/+50°C. 1,5M	ø160 mm
911.000590	TK085/2 250 -50/+50°C. 1,5M	ø250 mm
911.000266	TK085/3 63 -50/+50°C.1,5M KS	ø63 mm
911.000188	TK085/3 100 -50/+50°C. 1,5M	ø100 mm
	Surcharges TK085 series	
	Special range	
	Stainless steel sensor	
	Glycerin filling (house with bajonet)	
	Capillary per meter	
	Bi-metal compensation	
	Transport cooling design	

M83

Technical Specifications

Type:
M83
Housing:
Gold coloured epoxy acc. to DIN 18185
Dimensions:
150 mm
Bulb:
Brass, standard 50 x 10 mm
Available length:
40 mm, 63 mm 100 mm, 160 mm, 200 mm and 250mm

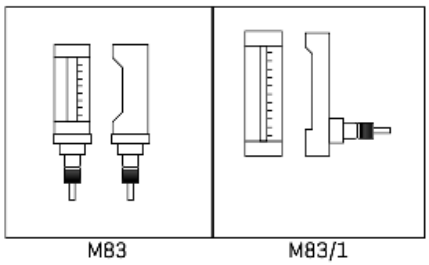
Connection:
1/2 BSP
Liquid charge:
Blue coloured till 160°C, mercury above 160°C
Ranges:
60/+40°C
0/+100°C
0/+200°C
30/+50°C
0/+120°C
-10/+50°C
0/+160°C
Accuracy:
± 2% of the range

Models:
M83 - straight model, brass bulb
M83/1 - square model, brass bulb
M83S - straight model, steel bulb
M83/1S - square model, steel bulb
M83RVS - straight model, stainless steel bulb
M83/1RVS - square model, stainless steel bulb

The machine thermometers of the M83 range have wide applications in industry, on cooling compressors, diesel engines, pipes etc.

Built complete in accordance to DIN 16185. The housing is solid and has an easily read scale.

The M83 is available in the following models:
M83 - straight model, brass bulb
M83/1 - square model, brass bulb
M83S - straight model, steel bulb
M83/1S - square model, steel bulb
M83RVS - straight model, stainless steel bulb
M83/1RVS - square model, stainless steel bulb



Product name	Description	
M83	Bottom connection	Brass
	L=50 mm, 1/2" BSP	Steel
		Rvs
M83/1	Back connection	Messing
	L=50 mm, 1/2" BSP	Steel
		Stainless steel
Loose glass thermometer	M83	
Loose glass thermometer	M83/1	

B84

Technical Specifications

Type	: B84 air channel thermometer
Diameter	: 63 mm, 80 mm, 100 mm
Length	: 100 mm or multiple
Range	: 0/+120°C *)
Type	: B84/1 (back connection)
Diameter	: 63 mm, 80 mm, 100 mm
Length	: 45 mm, 63 mm, 100 mm, 200 mm, 300 mm etc.
Range	: 0/+120°C *)
Type	: B84/2 (Bottom connection)
Diameter	: 63 mm, 80 mm, 100 mm
Lenght	: 45 mm, 63 mm, 100 mm, 200 mm, 300 mm etc.
Range	: 0/+120°C *)
Type	: B84/3 Pipe clamp thermometer
Diameter	: 63 mm, 80 mm
Range	: 0/+120°C *)
Type	: B84/4 meat thermometer
Diameter	: 34 mm, 50 mm, 63 mm, 80 mm
Length	: 100 mm, 200 mm, 300 mm, 400mm,500 mm
Range	: 0/+120°C *)
Type	: B84/5 Meat thermometer with protection bracket
Diameter	: 34 mm, 50 mm, 63 mm, 80 mm
Range	: 100 mm, 200 mm
Length	: 0/+120°C *)

***) Available ranges:**
-20/+60°C 0/ +40°C 0/+200°C
-30/+50°C 0/ +60°C 0/+250°C
-40/+40°C 0/ +100°C 0/+300°C
-15/+45°C 0/ +160°C 0/+400°C

The bi-metal thermometers are used where temperatures are measured on the spot. Due to their simple construction the bi-metal thermometers are low priced.

The accuracy of the B84 thermometers is ± 2,5% of the range. At large series the thermometers can be provided with company logo.

B84 - The B84 is an air channel thermometer with back flange for screw mounting and has a brass bulb.

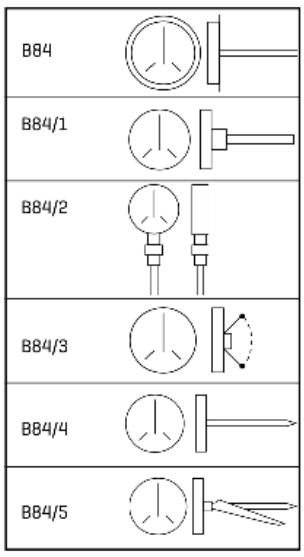
B84/1 - The B84/1 is a bi-metal thermometer for industry. This thermometer is provided with a separate brass pocket with fix screw and has a ½ BSP rear connection.

B84/2 - The B84/2 is a similar to the B84/1, but with a bottom connection.

B84/3 - Due to the pipe clamp, the B84/3 is suitable to measure the temperature on pipes.

B84/4 - The meat thermometer B84/4 is fully made of stainless steel and provided with a sharp point. The diameter of the sensor is 6 mm.

B84/5 - Finally the B84/5 is also made out of stainless steel and is equipped with a protection bracket. The sensor has a diameter of 4 mm and is also provided with a sharp point.



Product name	Description	
B84	Bi-metal channel thermometer	ø63 mm
	L=100 mm, 0/+120°C	ø80 mm
		ø100 mm
B84/1	Bi-metal thermometer for closed systems	ø63 mm
	L=45 mm, 0/+120°C	ø80 mm
		ø100 mm
B84/2	Bi-metal thermometer with brass sleeve	ø63 mm
	L=45 mm, 0/+120°C	ø80 mm
		ø100 mm
B84/3	Bi-metal pipe thermometer	ø63 mm
B84/3	0/+120°C	ø80 mm
B84/4	Bi-metal thermometer ø63 mm	L=100 mm
B84/4	Stainsless steel sensor 0/+120°C	L=200 mm
B84/5	Bi-metal thermometer, L=200 mm	ø33 mm
B84/5	Insert thermometer, 0/+120°C	ø50 mm
Surcharges B84 series		
Other range than 0/+120°C		

84

The stainless steel thermometer, type 84, was developed to measure liquids and gases. It is intended for use in refineries, chemical plants, the food processing industry, water and sewage purification farms and in other applications where the medium does not affect the stainless steel.

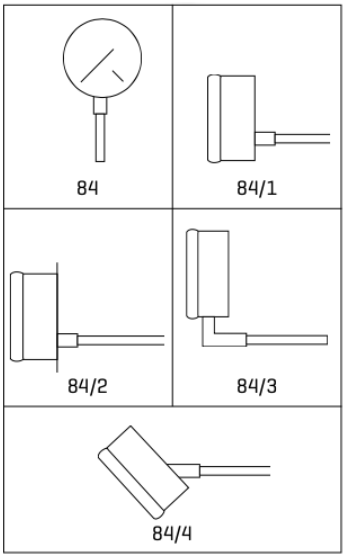
These thermometers work on the basis of dynamic expansion in a closed system with a liquid filling. This measuring system has a direct transmission which means that wear and tear is minimal and the thermometer is guaranteed a long life.

The thermometer has a fixed stainless steel sensor which can be fitted with different couplings, including a sanitary or even an aseptic model. The thermometer type 84 is suitable for use outside.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

In addition to the extensive standard range other models can be supplied to fit the client's wishes.

Your company name and/or logo can be professionally applied to this stainless steel thermometer 84.



Technical Specifications

Type:
84, 84/1, 84/2, 84/3, 84/4

Casing diameter:
63 - 100 - 160 - 250 mm

Housing:
Stainless steel 304

Seal:
Bayonet catch stainless steel 304, Rubber ring on broad sealing rim

Window:
Unbreakable macrolon

Measuring element:
Thermal spring, filled with organic liquid

Connection:
Fixed sensor stainless steel 316 (see summary)

Dial:
white aluminium, pressure scale in black

Pointer:
Black aluminium

Transmission-turning mechan.:
Brass, with nickel silver parts for the turning mechanism, this combination is wear-resistant and runs smoothly

Accuracy:
Casing diameter 63 mm: class 1,6 Casing diameter 100/160/250 mm: class 1,0

Environm. temp.:
-20 tot 60°C

Measuring ranges:
From -50 up to +160°C

Optional

Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact- models

Tag number:
On pointer, on stainless steel plate

Pointer:
Pointer and maximum indicator with zero adjustment

Window:
Safety glass with imprint safety glass

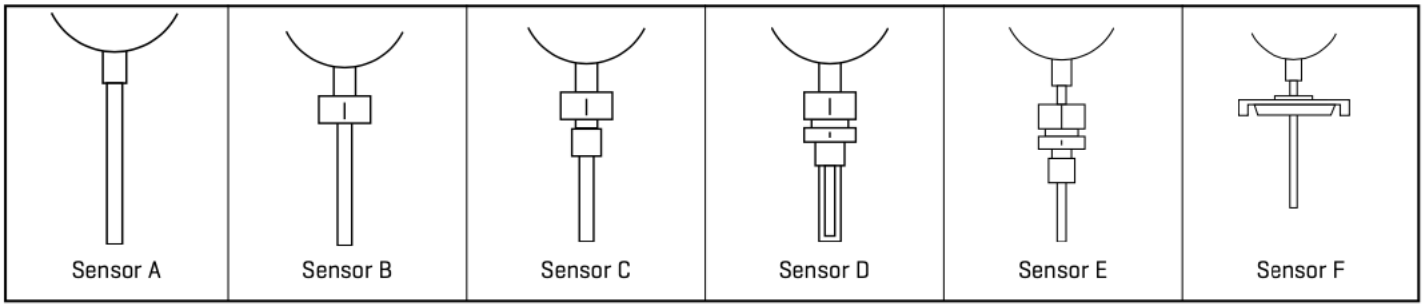
Connection:
Other connections on request

Measuring range:
Dimensions other than "°C"

Logo:
On dial

Product name	Description	
84	Thermometer with bottom connection	ø63 mm
84	Incl. sensor A L=100 mm	ø100 mm
84		ø160 mm
84		ø250 mm
84/1	Thermometer with back connection	ø63 mm
84/1	Incl. sensor A L=100 mm	ø100 mm
84/1		ø160 mm
84/1		ø250 mm
84/2	Thermometer with rear connections	ø63 mm
84/2	Back flange	ø100 mm
84/2	Incl. sensor A L=100 mm	ø160 mm
84/2		ø250 mm
84/3	Thermometer with square bottom connection	ø63 mm
84/3	Incl. sensor A L=100 mm	ø100 mm
84/3		ø160 mm
84/3		ø250 mm
84/4	Thermometer with slanting bottom connection	ø63 mm
84/4	Incl. sensor A L=100 mm	ø100 mm
84/4		ø160 mm
84/4		ø250 mm
Surcharges		
Glycerin filling		ø63 mm
Glycerin filling		ø100 mm
Glycerin filling		ø160 mm
Glycerin filling		ø250 mm
Sensor A	Without connection	per 100 mm extra
Sensor Aansluiting B	Sensor for thermometer 84	1/2” BSP
Sensor Aansluiting B	Swivel	3/4” BSP
Sensor Aansluiting B		1” BSP
Sensor Aansluiting C	Sensor for thermometer 84	1/2” BSP
Sensor Aansluiting C	Fixed connection	3/4” BSP
Sensor Aansluiting C		1” BSP
Sensor Aansluiting C	Movable connection type C	
Sensor Aansluiting D	Sensor for thermometer 84	1/2” BSP

Product name	Description	
Sensor Aansluiting D	Sleeve with connection	3/4” BSP
Sensor Aansluiting D		1” BSP
Sensor Aansluiting E	Sensor for thermometer 84	1/2” BSP
Sensor Aansluiting E	Adjustable clamp connection	3/4” BSP
Sensor Aansluiting E		1” BSP
Sensor Aansluiting F	Sensor for thermometer 84	NW 25
Sensor Aansluiting F	DIN 11851 connection	NW 40
Sensor Aansluiting F		NW 50



85

Technical Specifications

Type:
85, 85/1, 85/2, 85/3, 85/4
Casing diameter:
63 - 100 - 160 - 250 mm
Housing:
Stainless steel 304
Seal:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring elem.:
Thermal spring, filled with compressed nitrogen
Adjustability:
Zero point adjustment by means of screw on the top of the thermometer for corrections from +/-6%
Connection:
Fixed stainless steel 316 sensor (see summary)
Diale:
White aluminium, black pressure scale
Pointer:
Black aluminium
Transmission-turning mechan.:
Brass, with nickel silver parts for the turning mechanism; this combination is wear resistant and runs smoothly
Accuracy:
Casing diameter 63 mm: class 1,6 casing diameter 100/160/250 mm: class 1,0
Environm. temp.:
-20 tot 60°C
Measuring ranges:
From -100 up to +650°C
Optional
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Tag number:
On pointer, stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass with imprint safety glass
Connection:
Several standard models, see outlines of other models on request
Measuring range:
Other dimensions than °C
Logo:
On dial

This nitrogen-filled industrial stainless steel thermometer, type 85, was specially developed to measure liquids and gases in the food processing industry and in other industrial applications where the measuring system must not harm the product. Because of these qualities these thermometers are often used in other industrial processes.

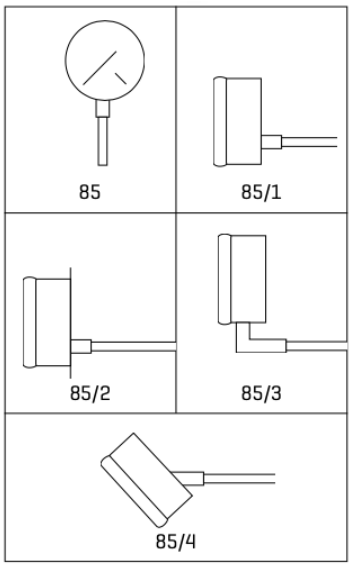
The thermometers work on the basis of dynamic expansion in a closed system with a nitrogen filling. This unique measuring system has a standard compensation for casing temperature, which makes the temperature measurement extremely accurate.

The thermometer has a fixed stainless steel sensor. This sensor can be fitted with a sanitary or even an aseptic coupling. The thermometer type 85 is suitable for use outside.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

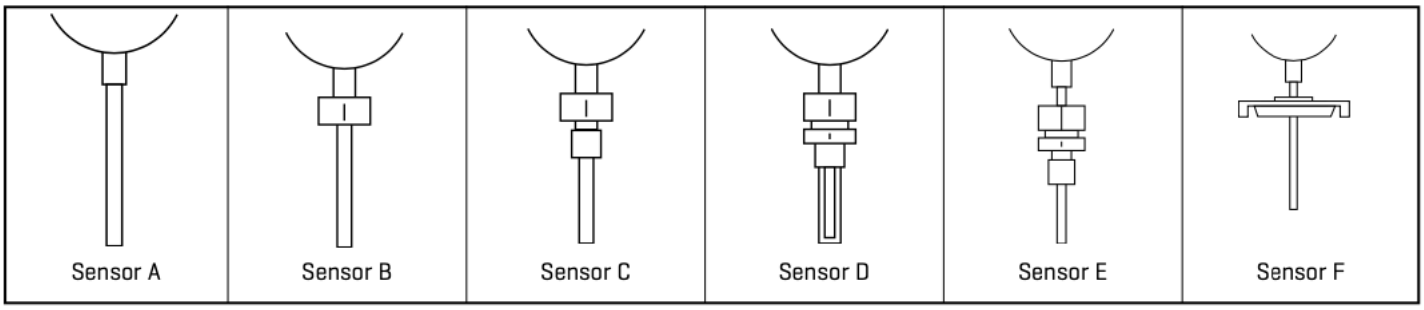
In addition to the extensive standard range other models can be supplied to fit the client's wishes.

Your company name and/or logo can be professionally applied to this



Product name	Description		Price
85	Thermometer with bottom connection	ø63 mm	
85	incl. sensor A L=100 mm	ø100 mm	
85		ø160 mm	
85		ø250 mm	
85/1	Thermometer with back connection	ø63 mm	
85/1	Incl.sensor A L=100 mm	ø100 mm	
85/1		ø160 mm	
85/1		ø250 mm	
85/2	Thermometer with back connection	ø63 mm	
85/2	Back flange	ø100 mm	
85/2	Incl. sensor A L=100 mm	ø160 mm	
85/2		ø250 mm	
85/3	Thermometer with square bottom connection	ø63 mm	
85/3	Bottom connection	ø100 mm	
85/3	Incl. sensor A L=100 mm	ø160 mm	
85/3		ø250 mm	
85/4	thermometer met schuine onder aansluiting	ø63 mm	
85/4	incl. sensor A L=100 mm	ø100 mm	
85/4		ø160 mm	
85/4		ø250 mm	
Sensor A	Without connection	per 100 mm extra	
Sensor Aansluiting B	Sensor for thermometer 85	1/2” BSP	
Sensor Aansluiting B	Swivel	3/4” BSP	
Sensor Aansluiting B		1” BSP	
Sensor Aansluiting C	Sensor for thermometer 85	1/2” BSP	
Sensor Aansluiting C	Fixed connection	3/4” BSP	
Sensor Aansluiting C		1” BSP	
Sensor Aansluiting C	Movable connection type C		
Sensor Aansluiting D	Sensor for thermometer 85	1/2” BSP	
Sensor Aansluiting D	Sleeve with connection	3/4” BSP	
Sensor Aansluiting D		1” BSP	
Sensor Aansluiting E	Sensor for thermometer 85	1/2” BSP	
Sensor Aansluiting E	Adjustable clamp connection	3/4” BSP	
Sensor Aansluiting E		1” BSP	

Product name	Description		Price
Sensor Aansluiting F	Sensor for thermometer 85	NW 25	
Sensor Aansluiting F	Sensor for thermometer 85	NW 25	
Sensor Aansluiting F	Sensor for thermometer 85	NW 50	



184

The stainless steel thermometer, type 184, was developed to measure liquids and gases. It is intended for use in refineries, chemical plants, the food processing industry, water and sewage purification farms and in other applications where the medium does not affect the stainless steel sensor.

These thermometers work on the basis of dynamic expansion in a closed system with a liquid filling. The measuring system has a direct transmission which means that wear and tear is minimal and a long life guaranteed.

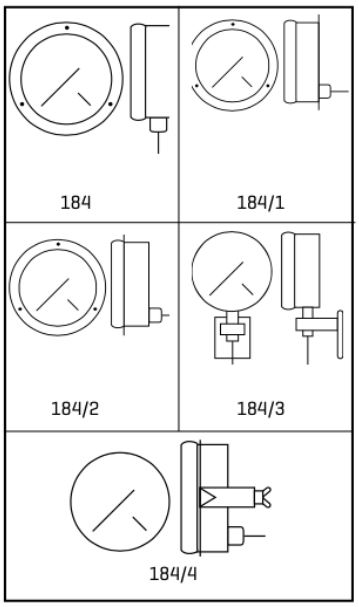
The thermometer 184 has a synthetic capillary as standard. A copper-clad or stainless steel capillary is also possible. The sensor is made of stainless steel and can be fitted with different couplings, including a sanitary or even an aseptic model.

The thermometer type 84 is suitable for use outside.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

In addition to the extensive standard range other models can be supplied to fit the client's wishes.

Your company name and/or logo can be professionally applied to this stainless steel thermometer 184.



Technical Specifications

Type:
184, 184/1, 184/2, 184/3, 184/4

Casing diameter:
63 - 100 - 160 - 250 mm

Housing:
Stainless steel 304

Seal:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim

Window:
Unbreakable macrolon

Measuring elem.:
Thermal spring, filled with organic liquid

Capillary:
Capillary (state required length), Synthetic material, maximum capillary length: 20 metres at envoirment temperature of 20ºC

Connection:
Stainless steel 316 sensor, various alternatives

Dial:
White aluminium, black pressure scale

Pointer:
Black aluminium

Transmission- turning mechanism:
Brass, with nickel silver parts. This combination is wear-resistantand runs smoothly

Accuracy:
ø 63 mm: 1,6%
ø 100/160/250 mm: 1,0%

Environm. temp.:
-20 tot 60ºC

Measuring ranges:
From -50 up to +120ºC
Optional

Capillary:
Coper-clad coper capillary or stainless steel capillary with or without protection tube

Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models

Contacts:
See page "electic contact arrangements"

Tag number:
On pointer, stainless steel plate

Pointer:
Pointer and maximum indicator with zero adjustment

Window:
Safety glass with imprint safety glass

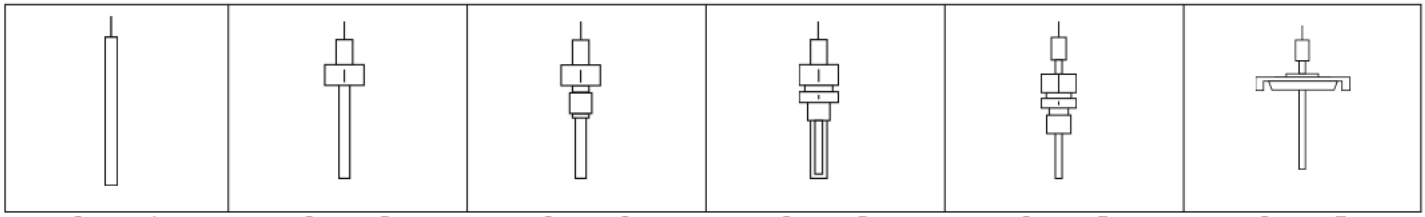
Connection:
Other connections on request

Measuring range:
Dimensions other than ºC

Logo:
On dial

Product name	Description	
184	Thermometer with back connection	ø63 mm
184	Back flange	ø100 mm
184	Incl. sensor A	ø160 mm
184	Excl. capillary	ø250 mm
184/1	Thermometer with back connection	ø63 mm
184/1	Back flange	ø100 mm
184/1	Incl. sensor A	ø160 mm
184/1	Excl. capillary	ø250 mm
184/2	Thermometer with back connection	ø63 mm
184/2	Front flange	ø100 mm
184/2	Incl. sensor A	ø160 mm
184/2	Excl. capillary	ø250 mm
184/3	Thermometer with square back connection	ø63 mm
184/3	Wall mounting plate	ø100 mm
184/3	Incl. sensor A	ø160 mm
184/3	Excl. capillary	ø250 mm
184/4	Thermometer with back connection	ø63 mm
184/4	Panel mounting bracket	ø100 mm
184/4	Incl. sensor A	ø160 mm
184/4	Excl. capillary	ø250 mm
Sensor A	Without connection	per 100 mm extra
Sensor B	Sensor for thermometer 184	1/2” BSP
Sensor B	Swivel	3/4” BSP
Sensor B		1” BSP
Sensor C	Sensor for thermometer 184	1/2” BSP
Sensor C	Fixed connection	3/4” BSP
Sensor C		1” BSP
Sensor C	Movable connection type C	
Sensor D	Sensor for thermometer 184	1/2” BSP
Sensor D	Sleeve with connection	3/4” BSP
Sensor D		1” BSP
Sensor E	Sensor for thermometer 184	1/2” BSP
Sensor E	Adjustable clamp connection	3/4” BSP
Sensor E		1” BSP
Sensor F	Sensor for thermometer 184	NW 25

Product name	Description	
Sensor F	DIN 11851 clutch	NW 40
Sensor F		NW 50
Surcharges		
Stainless steel capillary		2,5 mm per meter
Stainless steel protection tube		Per meter
Flexible plastic capillary		3,5 mm per meter
Flexible copper capillary		Per meter



185

Technical Specifications

Type:
185, 185/1, 185/2, 185/3, 185/4

Casing diameter:
63 - 100 - 160 - 250 mm

Housing:
Stainless steel 304

Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim

Window:
Unbreakable macrolon

Measuring elem.:
Thermal spring, filled with compressed nitrogen

Adjustability:
Zero point adjustment by means of screw on the top of the thermometer for corrections from +/=6%

Capillary:
Stainless steel capillary (state required length). Stainless steel protection tube if desired; maximum capillary length: 20m, at 20ºC environment temperature.

Connection:
Stainless steel sensor 316 (see summary)

Dial:
White aluminium, black pressure scale

Pointer:
Black aluminium

Transmission- turning mechan.:
Brass, with nickel silver parts; this combination is wear-resistant and runs smoothly

Accuracy:
Casing diameter 63 mm: class 1,66, Casing diameter 100/160/250 mm: class 1,0

Environment temperature:
-20 tot 60ºC

Measuring ranges:
From -50 up to +650ºC

Optional

Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models

Tag number:
On pointer, on stainless steel plate

Pointer:
Pointer and maximum indicator with zero adjustment

Window:
Safety glass with imprint safety glass

Connection:
Diverse standard models, see outlines of other models on request

Measuring range:
Dimensions other than ºC

Logo:
On dial

This nitrogen-filled industrial stainless steel thermometer, type 185, was specially developed to measure liquids and gases in the food processing industry and in other industrial applications where the filling of the measuring system must not harm the product. Because of these qualities these thermometers are often used in other industrial processes.

The thermometers work on the basis of dynamic expansion in a closed system with a nitrogen filling. This unique measuring system has a standard compensation for casing temperature, which makes the temperature measurement extremely accurate.

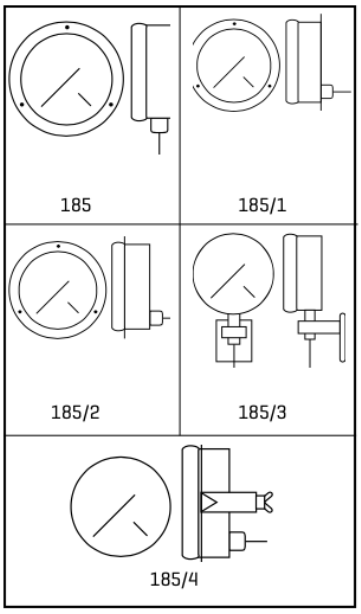
The type 185 thermometer is supplied with a stainless steel capillary and a stainless steel sensor. The sensors can be fitted with a sanitary or even an aseptic coupling.

The thermometer type 185 is suitable for use outside.

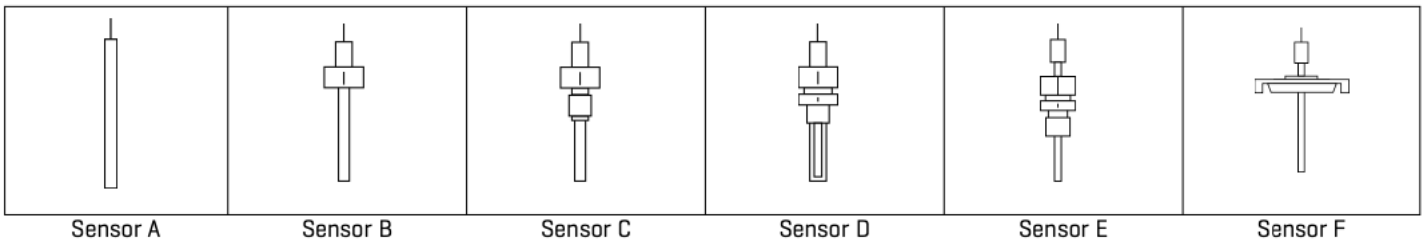
If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

In addition to the extensive standard range other models can be supplied to fit the client's wishes.

Your company name and/or logo can be professionally applied to this stainless steel thermometer 185.



Product name	Description	
185	Thermometer with bottom connection	ø63 mm
185	Rear flange	ø100 mm
185	Incl. sensor A	ø160 mm
185	Excl. capillary	ø250 mm
185/1	Thermometer with back connection	ø63 mm
185/1	Back connection	ø100 mm
185/1	Incl. sensor A	ø160 mm
185/1	Excl. capillary	ø250 mm
185/2	Thermometer with back connection	ø63 mm
185/2	Front flange	ø100 mm
185/2	Incl. sensor A	ø160 mm
185/2	Excl. capillary	ø250 mm
185/3	Thermometer with square bottom	ø63 mm
185/3	Connection moutage flange	ø100 mm
185/3	Incl. sensor A	ø160 mm
185/3	Excl. capillary	ø250 mm
185/4	Thermometer with rear connection	ø63 mm
185/4	Panel mounting bracket	ø100 mm
185/4	Incl. sensor A	ø160 mm
185/4	Excl. capillary	ø250 mm



Pressure

- Pressostats
- Pressure sensors
- Pressure gauges

Alfanet 57

Technical Specifications

Type:
Alfa 57
Housing:
Grey ABS plastic
Dimensions:
71 x 90 x 58 mm (wlh)
Connections:
Screw terminals on the side
Front:
Polyester
Range:
-1/+99 Bar, read-out per 0,1 Bar
Supply:
230 Vac, 50/60 Hz (-10%/+5%)
Function:
Pressure increase/ decrease or 2x increase/ 2x decrease (internal programmable)
Operations:
By push buttons on the front
Input:
0/+1 Vdc for sensors from the PX range
Relay:
Pressure increase SPST contact 250V/5A (NO)
Pressure decrease SPST contact 250V/5A (NO)
Alarm SPDT contact 250V/5A (NO/NC)
(all relays one common, non inductive)
Accuracy:
± 0.5% of the range

The Alfa 57 is a compact three stage pressostat for DIN rail mounting with a neutral zone.

The Alfa 57 has a default program with the function pressure increase/ decrease and a minimum/ maximum alarm. The thermostat can also be programmed with the function: two stage pressure increase or two stage pressure decrease.

The Alfa 57 has a range of -1/+99 Bar with a read-out per 0,1 Bar. To the Alfa 57, pressure sensors from the PX range can be connected.

The Alfa 57 offers the option to show the temperature belonging to the pressure. Therefore a large number of refrigerants can be selected.

All settings are made by the push buttons on the front. The internal settings like differential and sensor offset are sufficiently protected, so that they can't be changed by accident.

The Alfa 57 is supplied with 230 Vac. A clear user manual is enclosed.

Article number	Product name	Sensors
904.000853	Alfanet 57 BAR 4/20mA input	1

Alfanet 77

The Alfa 77 is a compact three stage pressostat for panel mounting with a neutral zone.

The Alfa 77 has a default program with the function pressure increase/ decrease and a minimum/ maximum alarm. The thermostat can also be programmed with the function: two stage pressure increase or two stage pressure decrease.

The Alfa 77 has a range of -1/+99 Bar with a read-out per 0,1 Bar. To the Alfa 77, pressure sensors from the PX range can be connected.

The Alfa 77 offers the option to show the temperature belonging to the pressure. Therefore a large number of refrigerants can be selected.

All settings are made by the push buttons on the front. The internal settings like differential and sensor offset are sufficiently protected, so that they can't be changed by accident.

The Alfa 77 is supplied with 12 Vac. A separate transformer can be supplied. A clear user manual is enclosed.

Technical Specifications

Type:
Alfa 77
Housing:
Black ABS plastic
Dimensions:
35 x 77 x 71,5 mm (hwd)
Panel saving:
28 x 70 mm (hw)
Connections:
Screw terminals on the back
Front:
Polyester IP-54
Range:
-1/+99 Bar, read-out per 0,1 Bar
Supply:
12 Vac, 50/60 Hz (-10%/+5%)
Function:
Pressure increase/ decrease or 2x increase/ 2x decrease (internal programmable)
Operations:
By push buttons on the front
Input:
0/+1 Vdc for sensors from the PX range
Relay:
Pressure increase SPST contact 250V/5A (NO)
Pressure decrease SPST contact 250V/5A (NO)
Alarm SPDT contact 250V/5A (NO/NC)
(all relays one common, non inductive)
Accuracy:
± 0.5% of the range

Article number	Product name	Sensors	0-10V Output
904.000730	Alfa 77-PI MIN/MAX 24VAC/DC	1	●
904.000950	Alfa 77-PI/2 Pa 24Vac/dc	1	●
904.000544	Alfanet 77 BAR 0-5Vdc input	1	
904.000667	Alfanet 77 mmWK tbv PX25	1	●
904.010213	Alfanet 77 PI BAR 24Vac/dc	1	●
904.000842	Alfanet 77 BAR 4/20mA input	1	

PX 25-4

Technical Specifications

Type:
PX 25-4 series
Housing:
Plastic
Dimensions:
138 x 33 x 62 mm
(hwd)
Air conn.:
1/8" tube
Supply:
12 .. 30 Vdc
Elec. conn:
Removable connector
with screw connectors.
(Wire: 0,2..2,5mm2)
Operating temp:
0/+60°C

Pressure range:
Type 1: 0..125 Pa
0..250 Pa
0..500 Pa
Type 2: 0..1250 Pa
0..2500 Pa
0..5000 Pa
0..7500 Pa
Output:
4/20 mA 50 - 350 Ohm
Max. pressure:
100 kPa
Accuracy:
Type 1:
3% of the measuring
+/- 0,5% of the range
Type 2:
< 1,5% of the range
Offset stability:
Type 1: <0,1 Pa / year
Type 2: 8 Pa / year

The PX 25-4 is a very accuarate electronic differential pressure sensor. This sensor can be used to measure low pressure with a high sensitivity and accuracy.

The sensor is equipped with two tube connections from 4 mm. The sensor has no moving parts for a high reliability. The PX 25-4 is equipped with a zero adjustment.

The sensor is build into a small plastic encloser with a low weight. Mounting is very easily.

The PX 25-4 needs a supply voltage between 12-30Vdc.
The sensor can be delivered in two different types. The difference between both types is the range. Both types can be adjusted for different ranges with the means of dipswitches.
Type 1 can de adjusted for the ranges:

- 0 .. 125 Pa
- 0 .. 250 Pa
- 0 .. 500 Pa

Type 2 can be adjusted for the ranges:

- 0 .. 1250 Pa
- 0 .. 2500 Pa
- 0 .. 5000 Pa
- 0 .. 7500 Pa

The PX 25-4 has an output from4-20mA..

Article number	Product name
910.080165	PX 25-4 Type1 0..0,5/1/2"WC
910.080166	PX 25-4 Type2 0..5/10/20/30"WC

PX 77/3

Technical Specifications

Type:
PX 77/3
Housing:
Stainless steel
Measuring elem:
CrNiCuNb 17-4
Dimensions:
22 x 73 mm
Process conn.:
1/4" Flare
Supply:
12 to 32 Vdc
Connection:
4-pin DIN plug
Sealing:
IP 65, RH max. 95%
Temp. range:
-40/+125°C

Standard range:
-1/+9 Bar
-1/+24 Bar
0/+10 Bar
0/+25 Bar
Other ranges can be supplied on request
Output:
4/+20 mA
Overloading:
Twice the sensor range
Cracking pressure:
Three times the sensor range
Total error:
-40..-12°C 3,0% typ. 2,0%
-20..+85°C 1,0% typ. 0,7%
+85..+100°C 2,5% typ. 1,5%
Weight:
90 g

Special models can be supplied on request

The PX77/3 is a robust electronic pressure sensor.

The sensor is resistant against pressure peaks, vibration-proof, shockproof and insensitive to temperature shocks.

Parts and casing with contact to measuring material is made of CrNiCuNb 17-4. This is resistant to most of the cooling gasses used into the refrigerations industries.

The measuring is equipped with a special steel membrane.

Possible uses are:
• refrigeration industry
• pneumatics
• hydraulics
• process control
• water technology

The pressure sensor can be delivered with in a few standard ranges with a 1/4" Flare connection. Other ranges and connections are available on request.

The sensor is electronically calibrated which means that the sensor combines a great accuracy to a long term stability.

Article number	Product name
390.000500	PX 77/3 -1/+9 BAR 1/4FL 4/20mA
390.000501	PX 77/3 0/+10 BAR 1/4FL 4/20mA
390.000502	PX 77/3 0/+25 BAR 1/4FL 4/20mA
390.000503	PX 77/3 -1/+24BAR 1/4FL 4/20mA

74

The gauge is build in a stainless steel housing and is filled with glycerin for reliable operation and long life. The seal between the plastic window and the housing prevents leakage by means of a bayonet catch with a rubber ring.

A connection nipple is fixed to the housing in a unique way making external connection screws unnecessary. This gives an extra protection against leakage caused by vibrations.

Pressure changes that can occur due to temperature differences of the glycerin are automatically compensated by the special bellows.

A safety blow plug is located on top of the unit holding.

As measuring element of phosphor, bronze is encased in an elastic bourdon tube, soldered to a large brass junction.

The measuring element is thermally and mechanically protected. This allows an over pressure of 25% of the range.

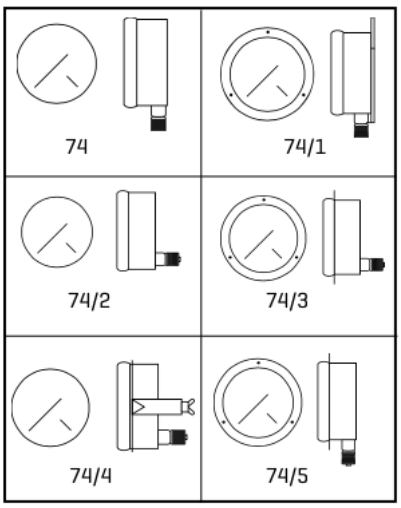
At ranges below 600 mBar a low pressure spring box is used. In that case the pressure gauge is supplied dry (without glycerin).

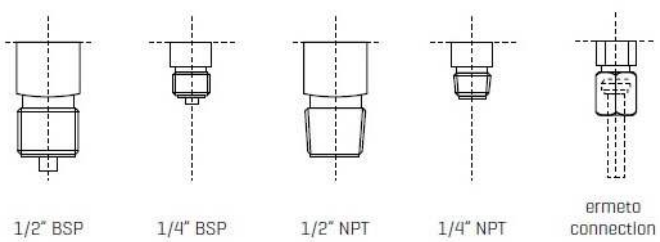
The pressure gauge can be supplied in several sizes and configurations, like ½ BSP or ½ NPT.

As standard a dial according to EN 837 is mounted, but on request other dials are also available like a BAR/PSI dial.

Technical Specifications

Type:
74
Housing:
ANSI 304
Sizes:
According to DIN 16064
Sealing:
Banyonet catch, rubber ring on broad profile
Window:
Unbreakable macrolon
Measuring:
Phosphor bronze soldered element with tin/silver alloy thermally and mechanically protected
Dial:
White aluminium, pressure scale in black according to EN 837
Connection:
Brass, 1/4 BSP or 1/2 BSP, other connections possible
Transmission:
Brass with new silver turn parts. This combination is wear and shock mechanism resistant.
Range:
According to DIN up to 60 Bar
Accuracy:
ø63 mm DIN class 1,6
ø100 mm DIN class 1.0
ø160 mm DIN class 1.0
Options:
Low pressure spring box for ranges <600 mBar stainless steel transmission
System:
Tag number on housing or dial dampening screw





Product name	Description	
74	Brass measuring system, glycerine filled	ø63 mm
74	Stainless steel housing	ø100 mm
74	Rear connection	ø160 mm
74		ø250 mm
74/1	Brass measuring system, glycerine filled	ø63 mm
74/1	Stainless steel housing	ø100 mm
74/1	Bottom connection with back flange	ø160 mm
74/1		ø250 mm
74/2	Brass measuring system, glycerine filled	ø63 mm
74/2	Stainless steel housing	ø100 mm
74/2	Rear connection	ø160 mm
74/2		ø250 mm
74/3	Brass measuring system, glycerine filled	ø63 mm
74/3	Stainless steel housing	ø100 mm
74/3	bottom connection with back flange	ø160 mm
74/3		ø250 mm
74/4	Brass measuring system, glycerine filled	ø63 mm
74/4	Stainless steel housing	ø100 mm
74/4	Rear connection with mounting bracket	ø160 mm
74/5	Brass measuring system, glycerine filled	ø63 mm
74/5	Stainless steel housing	ø100 mm
74/5	Bottom connection with front flange	ø160 mm
74/5		ø250 mm

75

Technical Specifications

Type:
74
Housing:
ANSI 304
Sizes:
DIN 16064
Sealing:
Banyonet catch, rubber ring on broad profile
Window:
Unbreakable macrolon
Measuring:
ANSI 316 argon arc element homogeneous welded alloy thermally and mechanically protected
Dial:
White aluminium, pressure scale in black according to EN 837

Connection:
ANSI 316, 1/2 BSP, other connections possible
Transmission:
Brass with new silver moving parts. This combination is wear and shock mechanism resistant.
Range:
According to DIN up to 1000 Bar
Accuracy:
ø63 mm DIN class 1,6
ø100 mm DIN class 1.0
ø160 mm DIN class 1.0
Options:
Low pressure spring box for ranges <600 mBar stainless steel transmission
System:
Tag number on housing or dial dampening screw

The model is a glycerin filled pressure gauge with stainless steel measuring system, suitable for applications in the process industry.

The gauge has a stainless steel housing and is filled with glycerin for reliable operation and long life. The seal between the plastic window and the housing prevents leakage by means of a bayonet catch with sealing ring.

A connection nipple is fixed to the housing in a unique way making external connection screws unnecessary. This gives extra protection against leakage caused by vibrations.

Surges that can occur due to temperature differences of the glycerin are automatically compensated by the special bellows.

A safety blow plug is fitted on the top of the gauge to guard against explosions.

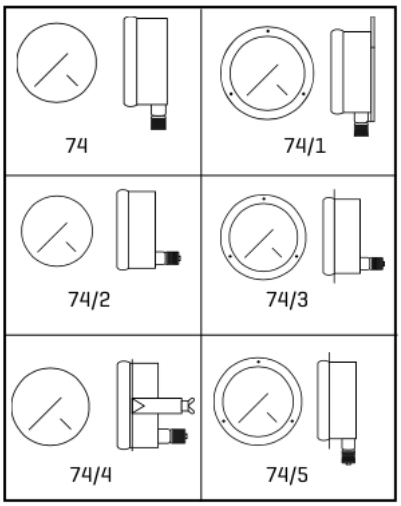
The measuring element is of stainless steel contemned in a bourdon tube argon arc welded to a large stainless steel junction.

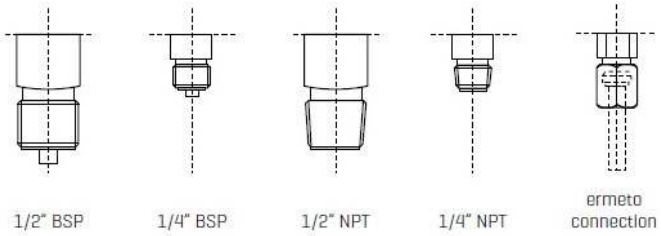
The measuring element is thermally and mechanically underrated allowing 25% out of range safety margin.

At ranges below 600 mBar a low pressure spring box is used. In that case the pressure gauge is supplied dry (without glycerin).

The pressure gauge can be supplied in several sizes and configurations, like ½ BSP or ½ NPT.

As standard a dial according to EN 837 is mounted, but on request other dials are also available like a BAR/PSI dial. Often the dial is provided with your company logo.





Product name	Description	
75	Stainless steel measuring system, glycerine filled	ø63 mm
75	Stainless steel housing	ø100 mm
75	Rear connection	ø160 mm
75		ø250 mm
75/1	Stainless steel measuring system, glycerine filled	ø63 mm
75/1	Stainless steel housing	ø100 mm
75/1	Bottom connection with back flange	ø160 mm
75/1		ø250 mm
75/2	Stainless steel measuring system, glycerine filled	ø63 mm
75/2	Stainless steel housing	ø100 mm
75/2	Rear connection	ø160 mm
75/2		ø250 mm
75/3	Stainless steel measuring system, glycerine filled	ø63 mm
75/3	Stainless steel housing	ø100 mm
75/3	Rear connection with front flange	ø160 mm
75/3		ø250 mm
75/4	Stainless steel measuring system, glycerine filled	ø63 mm
75/4	Stainless steel housing	ø100 mm
75/4	Rear connection with mounting bracket	ø160 mm
75/5	Stainless steel measuring system, glycerine filled	ø63 mm
75/5	Stainless steel housing	ø100 mm
75/5	Bottom connection with front flange	ø160 mm
75/5		ø250 mm

Product name	Description
Surcharges 74 & 75 manometers	
Preparation for rear flange	
Loose back flange	ø63 mm
Loose back flange	ø100 mm
Loose back flange	ø160 mm
Loose back flange	ø250 mm
Safety glass	ø63 mm
Safety glass	ø100 mm
Safety glass	ø160 mm
Safety glass	ø250 mm
Special range	
Special connection	
Center rear connection	
Low pressure system	(ranges < 0.6 Bar)
Stainless steel transmission system	
Damping screw brass	
Capillary damping	
Identification number on dial	
Identification number on stainless steel plate	
Pointer with zero position	
Max pointer with zero counting	
Calibration certificate	
Reduced prices 74 manometers	
Pressure gauge ø63 mm without glycerin	
Pressure gauge ø100 mm without glycerin	
Pressure gauge ø160 mm without glycerin	
Pressure gauge ø250 mm without glycerin	
Surcharges 75 manometers	
Screw spring (reach > 60 Bar)	
Stainless steel welded connection	
Monel screw for ø63 mm and ø100 mm	
Damping screw stainless steel	
DIN class 0.6, ø160 mm, ranges up to 60 Bar	
DIN class 0.6, ø160 mm, ranges above 60 Bar	

A75

Technical Specifications

Type:
A75
Housing:
ANSI 304
Dimensions:
DIN 16064
Sealing:
Bayonet catch, rubber ringon broad profile
Window:
Unbreakable macrolon
Measuring elem.:
ANSI 316 argonarc homogeneous welded Alloy
Dial:
White aluminium, pressure scale in black, standard temerature scale R717 red.

Connection:
ANSI 303, standard 1/2 BSP,
Transmission:
Brass with new silver mechanism moving parts, This combination is wear resistant and moves without shocks.
Range:
Suction -1/+12 Bar
Discharge -1/+30 Bar
Oil -1/+12 Bar
Other ranges available
Accuracy:
Ø63 mm class 1,6
Ø100 mm class 1,0
Ø160 mm class 1,0

The A75 gauge has been developed for pressure measurement of ammonia compressors.

The gauge has a stainless steel housing and is filled with glycerine for reliable operation and long life. The seal between the plastic window and the housing prevents leakage by means of a bayonet catch with sealing ring.

A connection nipple is fixed to the housing in a unique way making external connection screws unnecessary. This gives extra protection against leakage caused by vibration.

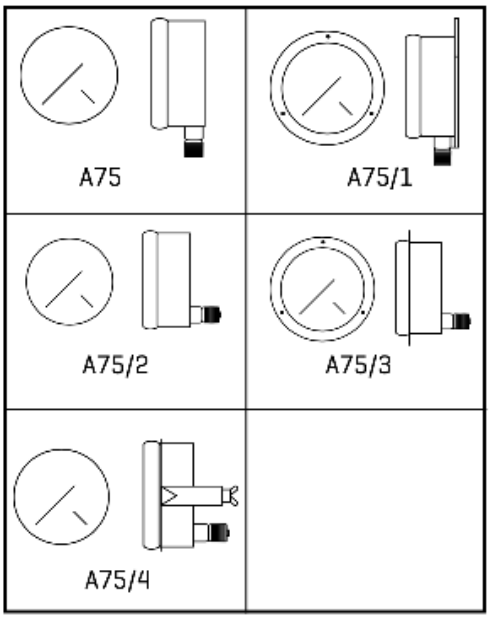
Surges that can occur due to temperature differences of the glycerine are automatically compensated for by the special bellows. A safety blow plug is fitted to the top of the gauge to guard against explosions.

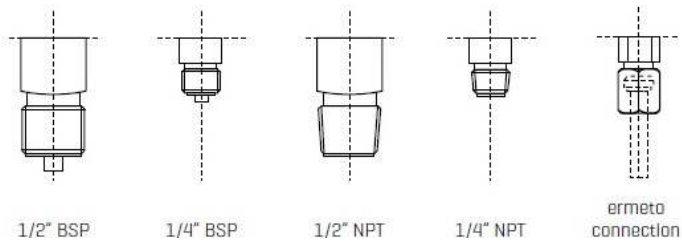
The measuring element is of stainless steel contemned in a bourdon tube argon arc welded to a large stainless steel junction.

The measuring element is thermally and mechanically underrated allowing a 25% out of range safety margin.

The gauge can be delivered in several sizes and formats with a choice of connection sizes and couplings.

The instrument scale is calibrated as standard for R717 temperature scales and the dial can be provided with company logos.





Product name	Description	
A75	Ammonia pressure gauge	ø63 mm
A75	Bottom connection	ø80 mm
A75		ø100 mm
A75		ø160 mm
A75/1	Ammonia pressure gauge	ø63 mm
A75/1	Bottom connection with back flange	ø80 mm
A75/1		ø100 mm
A75/1		ø160 mm
A75/2	Ammonia pressure gauge	ø63 mm
A75/2	Rear connection	ø80 mm
A75/2		ø100 mm
A75/2		ø160 mm
A75/3	Ammonia pressure gauge	ø63 mm
A75/3	Rear connection with front flange	ø80 mm
A75/3		ø100 mm
A75/3		ø160 mm
A75/4	Ammonia pressure gauge	ø63 mm
A75/4	Rear connection with mounting bracket	ø80 mm
A75/4		ø100 mm
A75/4		ø160 mm

R75

Technical Specifications

Type:
R75
Housing:
ANSI 304
Dimensions:
DIN 16064
Sealing:
Bayonet catch, rubber ring on broad profile
Window:
Unbreakable macrolon
Measuring elem.:
Phosphor broze soldered with tin/silver, alloy thermally and mechanically protected
Dial:
White aluminium. Pressure scale in black, standard temperature scale R22 in green. Other temperature scales are available at not extra price.
Connection:
Brass, standard 1/2 BSP or 7/16 SAE of 1/4 solder, other connections possible.
Transmission:
Brass with new silver turn mechanism parts. This combination is wear and shock resistant.
Range:
Suction -1/+12 Bar
Press -1/+30 Bar
Oil -1/+12 Bar
Other ranges available
Accuracy:
Ø63 mm class 1,6
Ø100 mm class 1,0
Ø160 mm class 1,0

The R75 pressure gauge has been developed for pressure measurements on freon compressors.

The gauge is built in a stainless steel housing and filled with glycerine which ensures reliable long lasting instrument. The sealing between the plastic window and the housing prevents leaking by a bayonet catch with a rubber ring.

The connection nipple is fixed in a unique way to the housing, making connection screws unnecessary. This gives an extra protection against leakage caused by vibration.

Pressure changes that can occur with temperature differences of the glycerine are automatically compensated by a special bellows.

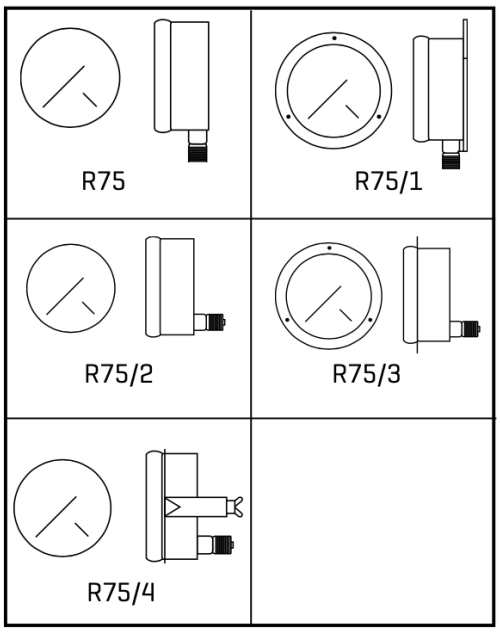
A safety blow plug is located on top of the unit holding.

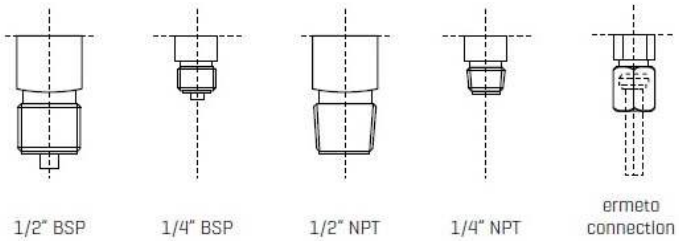
As measuring element of phosphor bronze is encased in an elastic bourdon tube, soldered to a large brass junction.

The measuring element is thermally and mechanically protected.

The gauge can be supplied in several sizes and configurations. The R75 can be supplied with several connections, including solder connections.

Various temperature scales are available, like R404, R134a etc. are also available. The dial can also be provided with company logo.





Product name	Description	
R75	Freon pressure gauge	ø63 mm
R75	Bottom connection	ø80 mm
R75		ø100 mm
R75		ø160 mm
R75/1	Freon pressure gauge	ø63 mm
R75/1	Bottom connection with back flange	ø80 mm
R75/1		ø100 mm
R75/1		ø160 mm
R75/2	Freon pressure gauge	ø63 mm
R75/2	Rear connection	ø80 mm
R75/2		ø100 mm
R75/2		ø160 mm
R75/3	Freon pressure gauge	ø63 mm
R75/3	Rear connection with front flange	ø80 mm
R75/3		ø100 mm
R75/3		ø160 mm
R75/4	Freon pressure gauge	ø63 mm
R75/4	Rear connection with mounting bracket	ø80 mm
R75/4		ø100 mm
R75/4		ø160 mm
Surcharges A75 & R75 manometers		
Prepared for rear flange		
Special temperature scale per range		
Loose rear flange		ø63 mm
Loose back flange		ø100 mm
Loose rear flange		ø160 mm
Special Range		
Solder connection		
Connection other than 1/4” BSP (ø63 mm) 1/2” BSP (ø100 mm) or 7/16 UNF		
Ermeto		ø6 mm steel
Overpressure protection up to 20 Bar (discharge pressure)		
Damping screw		
Reduced prices A75 & R75 pressure gauges		
Pressure gauge ø63 mm & ø80 mm without glycerine		
Pressure gauge ø100 mm without glycerine		
Pressure gauge ø160 mm without glycerine		

DA75

Technical Specifications

Type:
DA75
Housing:
ANSI 304
Dimensions:
DIN 16064
Sealing:
Bayonet catch, rubber ring on broad profile
Window:
Unbreakable macrolon
Measuring:
Stainless steel 316 argon arc homegeny welded. Alloy terminally and mechanically protected
Dial:
White aluminium. Pressure scale in black, temperature scale R717 in red.
Connection:
Stainless steel 303, standard 1/2BSP, other connections possible.
Transmission:
Brass with new silver turn mechanism parts. This combination is wear and shock resistant.
Range:
Suction -1/+12 Bar
discharge -1/+30 Bar
Accuracy:
DIN class 1,6

The DA75 has been developed to measure pressure on ammonia installations. The unit is unique in a way that the suction as well as the pressure can be read-out on the same gauge simultaneously.

The gauge is built in a stainless steel housing and filled with glycerine, which ensures long lasting reliable operation of the pressure gauge. The seal between the plastic window and the housing prevents leakage by a bayonet catch with a rubber ring.

Surges in pressure that can occur with temperature differences of the glycerine are automatically compensated by a special bellows. A safety blow off valve is fitted on top to guard against explosion.

As measuring element an elastic stainless steel bourdon tube is used, welded to a large stainless steel junction.

The DA75 is only available in a size of 100 mm. As an option a back flange can be supplied. The gauge is delivered with 1/2 BSP connections, other connections are available on request.

A R717 temperature scale is standard on the unit and this dial can also be provided with company logos.

Product name	Description	
DA75	Suction/pressure ammonia manometer	ø100 mm
DA75/1	Suction/Pressure Ammonia Manometer with back flange	ø100 mm

DR75

Technical Specifications

Type:
DR75
Housing:
ANSI 304
Dimensions:
DIN 16064
Sealing:
Bayonet catch, rubber ring on broad profile
Window:
Unbreakable macrolon
Measuring elem.:
Phosphor bronze soldered with tin/silver. Alloy thermally and mechanically protected
Dial:
White aluminium, Pressure scale in black, standard temerature scale R22 in green
Connection:
Brass, standard 1/2 BSP or 7/16 SAE or 1/4 solder, other connections possible.
Transmission:
Brass with new silver turn mechanism parts. This combination is wear and shock resistant.
Range:
Suction -1/+12 Bar
Discharge -1/+30 Bar
Accuracy:
DIN class 1,6

The DR75 has been developed to measure pressure on freon installations. The unit is unique in that the suction as well as the pressure can be read-out on the same gauge simultaneously.

The gauge is built in a stainless steel housing and filled with glycerine, which ensures long lasting reliable operation of the pressure gauge. The seal between the plastic window and the housing prevents leakage by a bayonet catch with a rubber ring.

Surges in pressure that can occur with temperature differences of the glycerine are automatically compensated by a special bellows. A safety blow off valve is fitted on top to guard against explosion. A prosper bronze element in an elastic bourdon tube is used, soldered to a large brass junction.

The DR75 is only available in size 100 mm. As an option a back flange can be supplied. The gauge can be delivered with several connections, including solder connections.

A R22 temperature scale is standard on the unit and this dial can also be provided with company logos.

Product name	Description	
DR75	Suction/pressure freon manometer	ø100 mm
DR75/1	Suction/Pressure Freon Manometer with back flange	ø100 mm

A376

Technical Specifications

Type:
A376
Housing:
ANSI 304
Dimensions:
DIN 16064
Sealing:
Bayonet catch, rubber ring on broad profile
Window:
Unbreakable macrolon
Measuring:
ANSI 316 argon arc elements homogeneous welded Alloy
Dial:
White aluminium pressure scale in black, standard temperature scale R717 in red.
Connection:
ANSI 303, standard 1/2BSP, Other connections possible
Transmission:
Brass with new silver turn mechanism parts. This combination is wear and shock resistant
Range:
-1/+12 Bar
differential pressure 0/+6 Bar
Accuracy:
DIN class 1,0

The gauge A376 is developed to measure the differential pressure on ammonia installations. The gauge is provided with a dial, which indicates the static pressure and a rotating dial, on which the differential pressure can be read.

The gauge is build in a stainless steel housing and filled with glycerine which ensures a reliable long lasting instrument. The sealing between the plastic window and the housing prevents leakage by a bayonet catch with a rubber ring.

Pressure changes that can occur with temperature differences of the glycerine are automatically compensated by the special bellows. A safety blow plug is located on top of the unit holding.

The measuring elements are of stainless steel contemned in a bourdon tube argon arc welded to a large stainless steel junction.

The A 376 is only supplied in size ø100 mm. As an option a back flange is available. The gauge is supplied with a ½ BSP connection, other connections available on request.

The A 376 has a range of -1/+12 Bar with a differential pressure of 0/+6 Bar. On request other ranges are available.

As standard a R717 temperature dial is mounted. The dial can be provided with company logo.

Product name	Description	
A376	Ammonia differential pressure manometer	ø100 mm
A376/1	Ammonia differential pressure gauge with back flange	ø100 mm
R376	Freon differential pressure manometer	ø100 mm
R376/1	Freon differential pressure gauge with back flange	ø100 mm

275

Technical Specifications

Type:
275
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
According to EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Depending on the model, the membrane is of stainless steel 316 or with stainless steel 316 protective foil
Flanges:
Stainless steel 316, diameter 100 mm
Connection:
1/2" BSP, stainless steel 316, bore 13 mm
Dial:
White aluminium, pressure scale in black according to EN 837
Pointer:
Black aluminium
Transm. mechan.:
Stainless steel 304
Accuracy:
Class 1,6
Environm. temp.:
-20 to 60ºC
Mediumtemp.:
Dry model: Max, 100ºC
Glycerine filled:
Max. 70ºC
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0,6/1,5/3/5/9 bar
Pressure:
0 to 0,6/1,6/2,5/4/6/10/16/25 bar

Optional:

Liquid filling: glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page "electric contact arrangements"
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Laminated safety glass with imprint safety glass
Coating:
Teflon coating on request
Connection:
Other than 1/2" BSP, on request
Measuring range:
Dimensions other than "bar"
Logo:
Op dial

This industrial stainless steel membrane pressure gauge, type 275, was developed to measure liquids that are viscous, turbid, crystallizing or corrosive, for example. They are for use in refineries, chemical plants, the food processing industry, water and sewage treatment plants and in applications with caustic and corrosive fluids.

The pressure gauge can be liquid-filled making it particularly suitable for applications with continuous pressure fluctuations such as are found in pumping, hydraulic, ship and other similar installations.

The standard stainless steel pressure gauge 275 has stainless steel 316 flanges and membrane. Should the liquid be too corrosive for the stainless steel 316 then the flange and membrane can be coated with Teflon.

The 275 pressure gauge comes with a ½BSP thread as standard. Other thread connections can be supplied, according to the client's specifications.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

The company name and/or logo can be professionally applied to the stainless steel pressure gauge 275.

Product name	Description	
275	Membrane pressure gauge	ø100 mm
275	1/2"BSP, bore ø13 mm	ø160 mm
Surcharges type 275		
Glycerine filling ø100 mm		
Glycerine filling ø160 mm		
Calibration Certificate		

275/1

Technical Specifications

Type:
275/1
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Membrane of stainless steel 316
Flanges:
Stainless steel 316, diameter 100 mm
Connection:
Fixed flange stainless steel 316, bore 50 mm, 6 bolt M8 holes
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Stainless steel 304
Accuracy:
Class 1,6
Environm.temp.:
-20 to 60°C
Mediumtemp.:
Dry model: Max, 100°C
Glycerine filled:
Max. 70°C
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0,6/1,5/3/5/9 bar
Pressure:
0 to 0,6/1,0/ 1,6/2,5/4/6/10/16/ 25 bar
Optional
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page “electric contact arrangements”
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Laminated safety glass with imprint safety glass
Connection:
Other flange models on request
Process conn.:
Teflon coating on request
Measuring range:
Other dimensions than “bar”
Logo:
On pointer

This industrial stainless steel membrane pressure gauge, type 275/1, was developed to measure liquids that are relatively viscous, cloudy, crystallizing or corrosive, for example. It is for use in refineries, chemical plants, the food processing industry, water and sewage treatment plants and in applications with caustic and corrosive fluids.

The pressure gauge can be liquid-filled making it particularly suitable for applications with continuous pressure fluctuations such as are found in pumping, hydraulic, ship and similar installations.

The standard stainless steel 275/1 pressure gauge has a fixed flange connection, 50 mm bore with six M8 bolt holes.

Other flange models can be delivered on request according to the client’s specifications.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

Product name	Description	
275/1	Membrane pressure gauge	ø100 mm
275/1		ø160 mm
Surcharges type 275		
Glycerine filling ø100 mm		
Glycerine filling ø160 mm		
Teflon coating flange type 275/1		
Calibration Certificate		

275/2

Technical Specifications

Type:
275/2
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Membrane of stainless steel 316
Flanges:
Stainless steel 316, diameter 100 mm
Connection:
Removable welded stainless steel 316 flange, bore 50 mm, 6 bolt M8 holes
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Stainless steel 304
Accuracy:
Class 1,6

Environm.temp.:
-20 to 60°C
Mediumtemp.:
Dry model: Max, 100°C
Glycerine filled:
Max. 70°C
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0,6/1,5/3/5/9 bar
Pressure:
0 to 0,6/1,0/ 1,6/2,5/4/6/10/16/ 25 bar
Optional
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page “electric contact arrange- ments”
Tag number:
On pointer, on stain- less steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Laminated safety glass with imprint safety glass
Connection:
Other flange models on request
Logo:
On dial

This industrial stainless steel membrane pressure gauge, type 275/2, was developed to measure liquids that are relatively viscous, turbid, crystallizing or corrosive, for example. It is for use in refineries, chemical plants, the food processing industry, water and sewage treatment plants and in applications with aggressive fluids.

The pressure gauge can be liquid-filled making it particularly suitable for applications with continuous pressure fluctuations such as are found in pumping, hydraulic, ship and similar installations.

The standard stainless steel 275/2 pressure gauge has a well-devised removable stainless steel welded flange connection, 50 mm bore with six M8 bolt holes.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

Product name	Description	
275/2	Membrane pressure gauge	ø100 mm
275/2	Flange for solder connection	ø160 mm
Surcharges type 275		
Glycerine filling ø100 mm		
Glycerine filling ø160 mm		
Calibration Certificate		

275/3

This industrial stainless steel membrane pressure gauge, type 275/3, is developed for measuring of liquids which are per example relative viscous, troubled, crystallized or corrosive. Examples are refineries, chemical industries, food industries, water environment installations (sewer- and water treatment installations) and in application with aggressive liquids.

The pressure gauge can be filled with liquid, which means it is very suitable for applications with continuous pressure fluctuations like pump-, hydraulic-, ships- and other such installations.

This solid pressure gauge is available in three different stainless steel 316 flange models, namely the: NW 25, NW 40 and the NW 50. The used membrane is also made of stainless steel 316. Because of this construction, the medium only makes contact with stainless steel 316.

As an option the inner parts of the flange and the membrane can be equipped with teflon.
If monitoring is required, VDH Products can deliver a wide range of electrical contacts, for example PLC contacts.

Technical Specifications

Type:
275/3
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Membrane of stainless steel 316
Flanges:
Stainless steel 316,
Connection:
NW 25: DIN 2576 (4 bolt holes M12)
NW 40: DIN 2632/2633/2634 (4 bolt holes M16)
NW 50: DIN 2527 (4 bolt holes M16)
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Stainless steel 304
Accuracy:
Class 1,6
Environm.temp.:
-20 to 60°C
Mediumtemp.:
Dry model: Max, 100°C
Glycerine filled:
Max. 70°C
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0,6/1,5/3/5/9 bar
Pressure:
0 to 0,6/1,0/ 1,6/2,5/4/6/10/16/ 25 bar
Optional
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page “electric contact arrangements”
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Laminated safety glass with imprint safety glass
Connection:
Other flange models on request
Process conn.:
Teflon coating on request
Measuring range:
Other dimensions than “bar”
Logo:
On pointer

Product name	Description	
275/3	Membrane pressure gauge	ø100 mm
275/3	NW50 pitch 125 of NW40 pitch 110	ø160 mm
Surcharges type 275		
Glycerine filling ø100 mm		
Glycerine filling ø160 mm		
Teflon coating flange type 275/3		
Calibration Certificate		
Hydraulic system type 275/3		

275/4

Technical Specifications

Type:
275/3
Casing diameter:
100 - 160 mm (250 mm on request)
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Membrane of stainless steel 316
Flanges:
Stainless steel 316,
Connection:
1",1,5".2,0" or 2,5" coupling according DIN 11851, swivel and point piece stainless steel 316
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Brass with new silver
Accuracy:
Class 1,0
Environm.temp.:
-20 to 60°C
Mediumtemp.:
0 to 40°C
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0,6/1,5/3/5/9 bar
Pressure:
0 to 0,6/1,0/ 1,6/2,5/4/6/10/16/ 25 bar. Range depends on connections.
Optional
Coupling according to DIN 11864
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page "electric contact arrangements"
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Laminated safety glass with imprint safety glass
Connection:
Other flange models on request
Process conn.:
Teflon coating on request
Measuring range:
Other dimensions than "bar"
Logo:
On pointer

The sanitary stainless steel membrane pressure gauge, type 275/4, has been developed for measuring pressure in sanitary processes. Examples are the dairy industry, food and beverage industry, pharmacy and the like.

Standard the pressure gauge is supplied with a dairy coupling according to DIN 11851. A diaphragm is placed in the tip in a professional way.

Optionally the sanitary pressure gauge is also available with DIN 11864 couplings.

During the development of the pressure gauge the strict requirements for sanitary applications have been fully taken into account. For example, the tip and swivel are made of stainless steel 316.

The pressure gauge can be filled with liquid, making it extremely suitable for applications with constant pressure fluctuations, such as pump, CIP and all other similar installations.

The 275/4 stainless steel pressure gauge is available in various DIN 11851/11864 couplings and different connection types (e.g. 9 h).

Product name	Description	
275/4	Sanitary membrane pressure gauge	ø100/1,5
275/4		ø100/2,0
275/4		ø160/1,5
275/4		ø160/2,0
Surcharges type 275		
Glycerine filling ø100 mm		
Glycerine filling ø160 mm		
Calibration Certificate		

275/5

The sanitary stainless steel membrane pressure gauge, type 275/5, was specially developed to measure high pressures in homogenisers.

The standard pressure gauge is supplied with a coupling for homogenisers. A basic concept in the development of this sanitary pressure gauge was that it must be suitable for pressures as high as 0+400 bar. The membrane is professionally placed in the coupling.

Other homogeniser couplings can be supplied on request.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

Technical Specifications

Type:
275/3
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Sanitary memebrane stainless steel 316
Connection:
Seal connection, with flange connection
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Brass with nickel silver, a highly durable combination
Accuracy:
Class 1,0
Environm.temp.:
-20 to 60°C
Mediumtemp.:
0 to 40°C
Pressure:
0 to 250, 400, 600, 1000 bar.
Optional
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page “electric contact arrange-ments”
Tag number:
On pointer, on stain-less steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass with imprint safety glass
Connection:
Other models on request
Measuring range:
Other dimensions than “bar”
Logo:
On dial

Product name	Description
275/5	ø100 mm
275/5	ø160 mm
Surcharges type 275	
Glycerine filling ø100 mm	
Glycerine filling ø160 mm	
Calibration Certificate	

275/6

The stainless steel membrane pressure gauge, type 275/6, was developed to measure liquids that are relatively viscous, cloudy, crystallising or corrosive, for example, and that have a high medium temperature. Practical examples are refineries, chemical plants (thermal oil) and in applications where aggressive liquids are involved.

The standard pressure gauge 275/6 is suitable for a maximum continuous medium temperature of 200°C. It has an open hydraulic cooling coil so that maximum heat is released. The advantage of this is that it keeps to a minimum the influence of the medium temperature on the measuring accuracy.

In spite of the high medium temperature the pressure gauge can be liquid-filled, which makes it extremely suitable for applications with continuous pressure fluctuations, such as pump, hydraulic, ship and similar installations

The standard stainless steel pressure gauge 275/6 is delivered with stainless steel flanges and a stainless steel 316 membrane. If the liquid is too aggressive for 316 stainless steel then the flange and membrane that come in contact with the liquid can be coated with Teflon.

The stainless steel pressure gauge 275/6 is supplied with a flange connection, NW 25, as standard. Other flange models can be supplied, according to the client's specifications.

Technical Specifications

Type:
275/3
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Memebrane stainless steel 316
Under-frange:
Stainless steel 316
Connections:
Flange stainless steel 316, NW 25 DIN 2527 (4 M12 bolt holes)
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Stainless steel 304
Accuracy:
Class 1,6
Environm.temp.:
-20 to 60°C
Mediumtemp.:
0 to 200°C
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0.6/1.5 bar
Pressure:
0 to 0.6/1.0/1.6/2.5/4/6/10/16/25 bar
Optional
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page "electric contact arrange-ments"
Tag number:
On pointer, on stain-less steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass with imprint safety glass
Connection:
Other flange models on request
Process conn.:
Teflon coating on request
Measuring range:
Other dimensions than "bar"
Logo:
On dial

Product name	Description	
275/6	Membrane pressure gauge	ø100 mm
275/6	till +200°C	ø160 mm
Surcharges type 275		
Glycerine filling ø100 mm		
Glycerine filling ø160 mm		
Calibration Certificate		

275/7

This industrial stainless steel membrane pressure gauge, type 275/7, was specially developed to measure gases and liquids with a low pressure range.

It could be used in refineries, chemical plants, the processing industry and other similar applications.

The standard stainless steel pressure gauge 275/7 is delivered with stainless steel 316 flanges and a stainless steel 316 membrane. It has a ½BSP connection. Other thread connections can be supplied on request.

The pressure gauges are available in diverse pressure ranges.

Technical Specifications

Type:
275/3
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Memebrane stainless steel 316
Connection:
1/2 BSP, stainless steel 316

Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Stainless steel 304
Accuracy:
Class 1,6
Environm.temp.:
-20 to 60°C
Mediumtemp.:
Dry model: max. 100°C
Pressure:
0 to 40/60/100/160/250/400 mbar
Optional
Tag number:
On pointer, on stainless steel plate
Window:
Safety glass with imprint safety glass
Connection:
special thread connection on request

Product name	Description	
275/7		ø100 mm
275/7	1/2"BSP	ø160 mm
Surcharges type 275		
Glycerine filling ø100 mm		
Glycerine filling ø160 mm		
Calibration Certificate		

275/8

The sanitary stainless steel membrane pressure gauge, type 275/8, was developed to measure pressure in sanitary processes. Practical examples are the pharmaceutical industry, the dairy industry, the food and drink industry and similar applications.

The pressure gauge is delivered with a clamp-on coupling in accordance with ISO 2852 as standard. A membrane is professionally placed in the coupling.

The pressure gauge can be liquid-filled, which makes it extremely suitable for applications with continuous pressure fluctuations, such as pump, CIP and similar installations

The stainless steel pressure gauge 275/8 is available with different ISO 2852 couplings and connection forms (9 hour, for example).

Different neck lengths are available for higher medium temperatures.

Technical Specifications

Type:
275/3
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Memebrane stainless steel 316
Connections:
1.5 or 2 clamp on, in accordance with ISO 2852, of stainless steel
Construction form:
Connection underneath (6 hour)
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Brass with nickel silver, a durable combination
Accuracy:
Class 1,0
Environm.temp.:
-20 to 60°C
Mediumtemp.:
0 to 40°C

Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0.6/1.5/3/5/9 bar
Pressure:
0 to 0.6/1.0/1.6/2.5/4/6/10/16/25 bar. Pressure ranges depend on the connections
Optional
Construction form:
3 and 9 hours, rear connection or capillary connection
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page “electric contact arrangements”
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass with imprint safety glass
Connection:
On request
Measuring range:
Other dimensions than “bar”
Logo:
On dial

Product name	Description
275/8	ø100 mm
275/8	ø160 mm
Surcharges type 275	
Glycerine filling ø100 mm	
Glycerine filling ø160 mm	
Calibration Certificate	

275/9

The stainless steel pressure gauge, type 275/9, was developed to measure pressure in a number of processes in which a seal is necessary. Relatively high pressures can be measured since the system is hydraulic.

This pressure gauge could be used in refineries, chemical plants, food and pharmaceutical industries, water treatment plants, pump and ship installations and in applications where aggressive liquids occur.

It was specially designed for applications where small building-in spaces are demanded. Because of these small spaces, other construction forms can also be delivered.

Technical Specifications

Type:
275/9
Casing diameter:
63-100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Seal stainless steel 316, hydraulic
Connections:
Casing diameter 63 mm: 1/2 BSP, stainless steel 316
Casing ø100 mm: 1/2 BSP, stainless steel 316
Casing ø160 mm: 1/2 BSP, stainless steel 316
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Brass with nickel silver, a durable combination
Accuracy:
Class 1,0
Environm.temp.:
-20 to 60°C
Mediumtemp.:
0 to 70°C
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0.6/1.5/3/5/9 bar
Pressure:
0 to 1000 bar
Optional
Construction form:
Rear connection
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page “electric contact arrangements”
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Laminated safety glass with imprint safety glass
Connection:
Special thread connection on request
Measuring range:
Other dimensions than “bar”
Logo:
On dial

Product name	Description
275/9	ø63 mm
275/9	ø100 mm
275/9	ø160 mm
Surcharges type 275	
Glycerine filling ø100 mm	
Glycerine filling ø160 mm	
Calibration Certificate	

275/10

Technical Specifications

Type:
275/10
Casing diameter:
100 - 160 mm (250 mm on request)
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Membrane of stainless steel 316
Connections:
1,1.5,2.0 or 2.5 coupling in accordance with SMS 1145, swivel and tip made of stainless steel 316
Construction form:
Connection underneath
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Brass with nickel silver
Accuracy:
Class 1,0
Environm.temp.:
-20 to 60°C
Mediumtemp.:
0 to 40°C
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0.6/1.5/3/5/9 bar
Pressure:
0 to 0.6/1.0/1.6/2.5/4/6/10/16/25 bar. Pressure ranges are dependent on the connections
Optional
Construction form:
3 and 9 hours,rear connection or capillary connection
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page “electric contact arrange-ments”
Tag number:
On pointer, on stain-less steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass
Connection:
On request

The stainless steel sanitary pressure gauge, type 275/10, was developed to measure pressure in sanitary processes. It is intended for use in the dairy industry, food, drink and pharmaceutical and other similar industries.

The pressure gauge comes with a coupling in accordance with SMS 1145 as standard.

The strict requirements for hygienic applications were fully taken into account in the development of this pressure gauge. The tip and swivel, for example, are made of stainless steel 316.

The pressure gauge can be liquid-filled making it particularly suitable for applications with continuous pressure fluctuations such as are found in pumping, CIP and other similar applications.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras

Product name	Description
275/10	ø100 mm
275/10	ø160 mm
Surcharges type 275	
Glycerine filling ø100 mm	
Glycerine filling ø160 mm	
Calibration Certificate	

275/11

Technical Specifications

Type:
275/11
Casing diameter:
100 - 160 mm (250 mm on request)
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Membrane of stainless steel 316
Connection:
31, 50 and 68 mm round couplings in accordance with Varivent
Construction form:
Connection underneath (6 hour)
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Brass with nickel silver, a durable combination
Accuracy:
Class 1,0
Environm.temp.:
-20 to 60°C
Mediumtemp.:
0 to 40°C
Measuring ranges:
Vacuum: -1 to 0 bar
Compound:
-1 to 0.6/1.5/3/5/9 bar
Pressure:
0 to 0.6/1.0/1.6/2.5/4/6/10/16/25 bar. Pressure ranges depend on the connections
Optional
Construction form:
3 and 9 o'clock, rear connection or capillary connection
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page "electric contact arrangements"
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass with imprint safety glass
Connection:
On request
Measuring range:
Other dimensions than "bar"
Logo:
On dial

The stainless steel sanitary pressure gauge, type 275/11, has been developed to measure pressure in sanitary processes. It is intended for use in the dairy industry, food, drink and pharmaceutical and other similar industries.

The pressure gauge comes with a Varivent coupling as standard. A membrane is placed in the tip in a professional manner. The material is stainless steel 316.

The pressure gauge can be liquid-filled making it particularly suitable for applications with continuous pressure fluctuations such as are found in pumping, CIP and other similar applications.

If signals are required VDH Products can deliver a wide range of electric contacts (PLC contacts, for example) as extras.

Product name	Description	
275/11	Varivent coupling	ø100 mm
275/11		ø160 mm
275/12	flange coupling	ø100 mm
275/12		ø160 mm
Surcharges type 275		
Glycerine filling ø100 mm		
Glycerine filling ø160 mm		
Calibration Certificate		

375 and 375/1

The pressure gauge types 375 and 375/1 are differential pressure gauges based on the Bourdon tube measuring system. Both pressures (+ and -) have their own Bourdon tube. The difference in result between both measuring systems is the differential pressure, which is indicated by one pointer.

For a good calibration a ratio of maximum 1:5 of the static pressure should be observed.

On request the pressure gauges can be provided with a relatively high overload capacity, depending on the differential pressure range.

The pressure gauges 375 and 375/1 can be liquid-filled, making them suitable for continual pressure fluctuations.

These pressure gauges are delivered with stainless steel 316 measuring elements and ½BSP thread connections as standard. Model 375 has a connection underneath and 375/1 has a rear connection.

In addition to the extensive standard range other models are available at the client's request.

Technical Specifications

Type:
375 and 373/1
Casing diameter:
63 - 100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Stainless steel 316, argon arc homogenously welded, spring is thermally and mechanically aged
Connection:
63 mm: 1/4 BSP, stainless steel 316
375: connection underneath
375/1: connection at rear
Max. ratio:
1:5 with regard to the static ratio
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan.:
Brass with nickel silver, a durable combination
Accuracy:
Class 1,6
Environm.temp.:
-20 to 60ºC
Mediumtemp.:
0 to 70ºC
Measuring:
Ratio 1:5 between ranges (static) differential pressure and static pressure, max.
Static pressure:
100 bar
Optional
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page "electric contact arrangements"
Mounting flanges:
Front and back flange, flush mount kit
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass with imprint safety glass
Connection:
Special thread connection on request
Measuring range:
Other dimensions than "bar"
Logo:
On dial

Product name	Description
375	ø63 mm
375	ø100 mm
375	ø160 mm
375/1	ø63 mm
375/1	ø100 mm
375/1	ø160 mm

375/3

Technical Specifications

Type:
375/3
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
375/3S stainless steel 316, argon arc homogenously welded, spring is thermally and mechanically aged. 375/3B phosphor bronze soldered with tin/ silver, alloy is thermally and mechanically aged
Connection:
375/3S: 1/2 BSP, stainless steel 316. 375/3B: 1/2 BSP, brass
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. turning.:
Brass with nickel silver mechanism parts, a durable combination

Accuracy:
Class 1,0
Environm.temp.:
-20 to 60°C
Mediumtemp.:
0 to 70°C
Measuring ranges:
All pressures from 0.6 up to and including (static) 100 bar
Optional
Liquid filling:
Glycerine (only possible without contacts), isolating oil for contact models
Contacts:
See page “electric contact arrange-ments”
Transm. mechan.:
Stainless steel 304
Mounting flanges:
Front and rear flange, flush mount kit
Tag number:
On pointer, on stain-less steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass with imprint safety glass
Connection:
Special thread connec-tion on request
Measuring range:
Other dimensions than “bar”
Logo:
On dial

The pressure gauge type 375/3 is a differential pressure gauge based on the Bourdon tube measuring system. Both pressures (+ and -) have their own Bourdon tube. Each Bourdon tube (pressure) has its own pointer. The difference between both pointers is the differential pressure. The + side has a red pointer and the - side a black. The advantage of this is that you can read the pressure of both the + and the - sides.

The pressure gauge 375/3 can be liquid-filled, making it suitable for continual pressure fluctuations.

This differential pressure gauge is available in two models. Type 375/3S has a stain-less steel Bourdon tube measuring element and a ½BSP stainless steel connection. In type 375/3B the measuring element is of phosphor bronze and the connection is ½BSP brass.

Product name	Description	
375/3	2 pointers, stainless steel measuring system	ø100 mm
375/3		ø160 mm
375/3	2 hands, brass measuring system	ø100 mm
375/3		ø160 mm

375/4 and 375/5

The pressure gauges, types 375/4 and 375/5, are differential pressure gauges for measuring low pressure differentials, and developed for clean gases that are not explosive. Both pressure gauges are based on the low pressure measuring system.

Both types of differential pressure gauges have a membrane measuring element and a tube connection of stainless steel 316.

In addition to the extensive standard range other models can be supplied to fit the client's wishes.

Your company name and/or logo can be professionally applied to the differential pressure gauge.

Technical Specifications

Type:
375/4 and 375/5
Casing diameter:
100 - 160 mm
Housing:
Stainless steel 304
Dimensions:
In accordance with EN 837
Sealing:
Bayonet catch stainless steel 304, rubber ring on broad sealing rim
Window:
Unbreakable macrolon
Measuring element:
Stainless steel 316
Connection:
Tube conection, stainless steel 316, 7 x 20 mm
375/4: connection undern.
375/5: connection at rear
Dial:
White aluminium, pressure scale in black in accordance with EN 837
Pointer:
Black aluminium
Transm. mechan:
Brass, with nickel silver parts for the turning mechanism, a durable combination
Accuracy:
Class 1,6

Environm.temp.:
-20 to 60°C
Medium temp.:
0 to 70°C
Measuring ranges:
Differential pressure ranges: 0-40/60/100/160/250/400 mbar. Max.stat. press. (-): 500 mbar
Optional
Transmission mechanism:
Stainless steel 304
Contacts:
See page "electric contact arrangements"
Transm. mechan.:
Stainless steel 304
Tag number:
On pointer, on stainless steel plate
Pointer:
Pointer and maximum indicator with zero adjustment
Window:
Safety glass with imprint safety glass
Connection:
Special thread connection on request
Measuring range:
Other dimensions than "bar"
Logo:
On dial
Mounting flanges:
Front and rear flange, flush mount kit

Product name	Description
375/4	ø100 mm
375/4	ø160 mm
375/5	ø100 mm
375/5	ø160 mm
Surcharges type 375	
Front flange	ø100 mm
Front flange	ø160 mm
Back flange	ø100 mm
Back flange	ø160 mm
Built-in set	

Humidity

Alfanet 29

The Alfa 29 is a compact hygrostat for wall mounting or panel mounting.
The clear display indicates the actual humdity and the status of the humidifying and dehumidfying.

The range from the Alfa 29 is 0/+100 %RH with a read-out per percent.

All settings can be done by internal parameters.

The Alfanet 29 has a network connection for read-out and data logging on the Alfanet PC software. The Alfa 29 does not have this network connection.

The Alfa 29 is supplied directly with 230Vac. Other supply voltages are possible on request.

Humidity sensors from the LC 95, RH 95 or RH 980 series can be connected.

Technical Specifications

Type:
Alfa 29
Housing:
Black ABS plastic
Dimensions:
144 x 67 x 50 mm (hwd)
Connection:
By means of swivels on screw terminals
Front:
Polyester IP-54
Range:
0/+100% RH, read-out per 1% RH
Supply:
230 Vac, 50/60 Hz (-10%/+5%)
Function:
Humidify or dehumidify
Operations:
By push buttons on the front
Input:
0/+1 Vdc for sensors from the RH range
Relay:
SPDT contact 250V/16A (C-NO), 8A (C-NC) (non inductive)
Accuracy:
± 0.5% of the range

Article number	Product name	Sensors	Control functions	
904.010091	Alfa 29 0/100%RH	1	•	•
904.010204	Alfa 29 24Vac/dc 0/100%RH	1	•	•
904.010108	Alfanet 29 0/100%RH	1	•	•
	Surcharges			
904.000057	Stainless steel wall plate			
904.000076	Mounting brackets			

Alfanet 39

The Alfa 39 is a compact hygrostat for panel mounting.
The clear display indicates the actual humdity and the status of the humidifying and dehumidfying.

The range from the Alfa 39 is 0/+100 %RH with a read-out per percent.

All settings can be done by internal parameters.

The Alfanet 39 has a network connection for read-out and data logging on the Alfanet PC software. The Alfa 39 does not have this network connection.

The Alfa 39 is supplied directly with 230Vac. Other supply voltages are possible on request.

Humidity sensors from the LC 95, RH 95 or RH 980 series can be connected. The humidity sensors need to be supplied by an external supply.

Technical Specifications

Type:
Alfa 39
Housing:
Black ABS plastic
Dimensions:
35 x 77 x 71,5 mm (hwd)
Connection:
Screw terminals on the side
Front:
Polyester IP-54
Range:
0/+100% RH, read-out per 1% RH
Supply:
12 Vac, 50/60 Hz (-10%/+5%)
Function:
Humidify or dehumidify
Operations:
By push buttons on the front
Input:
0/+1 Vdc for sensors from the RH range
Relay:
SPDT contact 250V/16A (C-NO), 8A (C-NC) (non inductive)
Accuracy:
± 0.5% of the range

Article number	Product name	Sensors	Control functions	
904.010065	Alfa 39 0/100%RH	1	•	•

Alfanet 59

Technical Specifications

Type:
Alfa 59
Housing:
Grey ABS plastic
Dimensions:
71 x 90 x 58 mm (wlh)
Connection:
Screw terminals on the side
Front:
Polyester
Range:
0/+100% RH, read-out per 1% RH
Supply:
230 Vac, 50/60 Hz (-10%/+5%)
Function:
Humidify/dehumidify or 3x humidify/3x dehumidify (internal programmable)
Minimum/maximum alarm
Operations:
By push buttons on the front
Input:
0/+1 Vdc for sensors from the RH range
Relay:
Dehumidify SPST contact 250V/5A (NO)
Humidify SPST contact 250V/5A (NO)
Alarm SPDT contact 250V/5A (NO/NC) (all relays one common, non inductive)
Accuracy:
± 0.5% of the range

The Alfa 59 is a compact three stage hygrostat for rail mounting with a neutral zone.

The Alfa 59 has a default program with the function humidify/dehumidify and a minimum/ maximum alarm. The thermostat can also be programmed with the function: two stage humidify increase or two stage dehumidify.

The Alfa 59 has a range of 0/+100% RH with a read-out per 1% RH. Humidity sensors from the LC 95, RH 95 or RH 980 series can be connected.

All settings can be done by the push buttons on the front. The internal settings like differential and sensor offset are sufficiently protected, so that they can't be changed by accident.

The Alfa 59 is supplied with 230 Vac. A clear user manual is enclosed.

Article number	Product name	Sensors	Control functions		Alarm relay
904.000548	Alfanet 59	1	•	•	•

Alfanet 79

The Alfa 79 is a compact three stage hygrostat for panel mounting with a neutral zone.

The Alfa 79 has a default program with the function humidify/ dehumidify and a minimum/ maximum alarm. The thermostat can also be programmed with the function: two stage humidify increase or two stage dehumidify.

The Alfa 79 has a range of 0/+100% RH with a read-out per 1% RH. Humidity sensors from the LC 95, RH 95 or RH 980 series can be connected.

All settings can be done by the push buttons on the front. The internal settings like differential and sensor offset are sufficiently protected, so that they can't be changed by accident.

The Alfa 79 is supplied with 12 Vac. A separate transformer can be supplied. A clear user manual is enclosed.

Technical Specifications

Type:
Alfa 79
Housing:
Black ABS plastic
Dimensions:
35 x 77 x 71,5 mm (hwd)
Connection:
Screw terminals on the side
Front:
Polyester IP-54
Range:
0/+100% RH, read-out per 1% RH
Supply:
12 Vac, 50/60 Hz (-10%/+5%)
Function:
Humidify/dehumidify or 3x humidify/3x dehumidify (internal programmable)
Minimum/maximum alarm
Operations:
By push buttons on the front
Input:
0/+1 Vdc for sensors from the RH range
Relay:
Dehumidify SPST contact 250V/5A (NO)
Humidify SPST contact 250V/5A (NO)
Alarm SPDT contact 250V/5A (NO/NC) (all relays one common, non inductive)
Accuracy:
± 0.5% of the range

Article number	Product name	Sensors	Control functions		0-10V	Alarm relay
904.000731	Alfanet 79 PI	1	•	•	1	•
904.010246	Alfanet 79	1	•	•		•

LC 95/3

The LC 95 is a electronic relative humidity sensor mounted in a universal plastic housing with a fixed connection cable of 4 metres in length. Perforations in the housing ensure sufficient air flow. The working range of the sensor is between 15 and 95% RH at temperatures between 0/+50°C. The electronic components are protected by a special lacquer to prevent damage by moisture.

Technical Specifications

Type:
LC 95/3
Housing:
Grey plastic housing with vent holes
Dimensions:
50 x 42 x 38 mm (hwd) mounting holes Y 4 mm, at 60 mm
Connection:
Via 4 meter fixed cable, 3x 0,25 mm2
Supply:
10-24 Vdc (0/+10%)
Sensor element:
Capacitive humidity sensor
Output:
0/+1 Vdc (0/+100% RH), Rb min 1 MΩ
Range:
15-95% RH at 0/+50°C
Accuracy:
30 - 80% RH ± 3%
20 - 90% RH ± 5%
Temp. coëfficiënt:
± 0,5% /°C
Store temp.:
-25/+85°C

Article number	Product name
910.050189	LC 95-3/2M 10/24Vdc, 0/1Vdc
910.050180	LC 95-3/4M 10/24Vdc, 0/1Vdc

RH 95

Technical Specifications

Type:
RH 95
Housing:
Stainless steel housing 35 x Y 80 mm, mounting flange Y 110 mm
Connection:
Via grommet on side or back
Supply:
10-24 Vdc (0/+10%)
Range:
10-95% RH at 0/+60°C
Temp. sensor:
2-wire Pt-100 according to DIN 43760
Output:
0/+1 Vdc (0/+100% RH), Rb min 1 MΩ
Accuracy:
30 - 80% RH ± 3%
20 - 90% RH ± 5%
Temp. coëfficiënt:
± 0,5% /°C for the RH 95 and RH 95/T
RH 95T:
RH sensor with Pt-100
RH 95T-2 PTC:
RH sensor with PTC-1K

The RH 95-2 is an electronic relative humidity sensor for many applications in the cooling and climate control industry.

The sensor is mounted in a stainless steel housing with a grommet for the cable input on the bottom as well as the back side. The housing is perforated to ensure sufficient air flow for ventilation.

The operational range of the sensor is between 15 and 95% RH at temperatures between 0/+60°C. The sensor is equipped with temperature compensation. The RH sensor is also available with a built in temperature sensor as the RH 95T-2.

The electronic components are protected with a special varnish to prevent damage by moisture.

Article number	Product name
910.050067	RH 95-2 10/24Vdc 0/+1Vdc UIT
910.050044	RH 95/T-2 PT1000
910.050068	RH 95/T-2
910.050103	RH 95/T-2 PTC (PTC-ELEMENT)

RH 980

Technical Specifications

Type:
RH 980
Housing:
Black ABS plastic
Dimensions:
144 x 72 x 50 mm (hwd)
Connection:
By means of cable glands on screw terminals
Front:
Polycarbonate IP-54
Supply:
230 Vac, 50/60 Hz (-10/+5%)
115 Vac, 50/60 Hz (-10/+5%)
48 Vac, 50/60 Hz (-10/+5%)
24 Vac, 50/60 Hz (-10/+5%)
15-35 Vdc
Max. power:
3VA humidity sensor
Range:
0-100% RH at -20/+60°C (Not condensing)
Output:
0-1 Vdc, 0-5 Vdc, 0-10 Vdc (Rb min 10k Ohm)
0-20 mA, 4-20 mA (Rb max 500 Ohm)
Accuracy:
0 - 100% RH ± 5%
20 - 90% RH ± 3%
Temperature sensor
Sensor:
3-Wire Pt-100
Range:
-20/+60°C
Output:
0-1 Vdc, 0-5 Vdc, 0-10 Vdc (Rb min. 10k Ohm)
Pt-100 direct (3-wire system)
Accuracy:
± 5% of the range
Model variations:
RH 980:
RH sensor for wall mounting
RH 980/T:
RH sensor for wall mounting with temperature sensor

The RH 980 is a modern electronic relative humidity sensor for different applications in cooling and climate technology. With the use of an advanced sensor it can be used up to 100% rh (not condensing).

The sensor has a watertight housing (IP-54) of a modern industrial design. Cable input is on the topside by means of cable glands.

The sensor works in areas between 0 and 100%rh (not condensing) at temperatures between -20/+60°C.

The RH 980 sensor can also be supplied with a built-in Pt-100 temperature sensor (model number RH 980/T).

The sensor can be supplied for different supply voltages. The RH 980 is available with different current and voltage outputs for the RH and temperature signals.

In case of failure the sensor element can be replaced in a very easy way without disassembling the complete sensor.

Article number	Product name
910.050161	RH 980 12/35Vdc 0/1Vdc
910.050163	RH 980 15/35Vdc 4/20mA
910.050167	RH 980 230Vac 0/1Vdc
910.050169	RH 980 230Vac 0/10Vdc
910.050170	RH 980 15/35Vdc 0/10Vdc
910.050173	RH 980 230Vac 4/20mA
910.050188	RH 980 HDPE 0/1Vdc
910.050153	RH 980T 230Vac 2x4/20mA
910.050155	RH 980T 15/35Vdc 2x4/20mA
910.050162	RH 980T 12/35Vdc 0/1Vdc, Pt100
910.050164	RH 980T 12/35Vdc 2x0/1Vdc
910.050166	RH 980T 12/35Vdc 0/1Vdc Pt1000
910.050174	RH 980T 230Vac 0/1Vdc, Pt100
910.050176	RH 980T HDPE 0/1Vdc Pt100
910.050181	RH 980T 12/35Vdc 2x0/10Vdc
910.050172	RH 980TK 15/35Vdc 0-10V Pt100
910.050179	RH 980TK 15/35V 2x4/20mA
910.050168	RH 980K 15/35Vdc 4/20mA L=100
910.050171	RH 980K 12/35Vdc 0/1Vdc L=100
910.050182	RH 980K 15/35Vdc 0/10Vdc L=100
910.050183	RH 980K 230Vac 0/+10Vdc L=100

Combinations

- Climate controller
- Compressor condensor controller
- Expansion valves controller
- Spray booth controller

Klima 500 Topline

The Klima 500 is a combination of a thermostat (Alfa 21 DP) and a hygrostat (Alfa 29) complete in one aluminum housing with plastic side panels.

The housing is suitable for wall mount (mounting bracket included).
The SM 811 temperature sensor and LC 95, RH 95 and RH 980 series humidity sensors can be connected to the Klima 500.

The temperature section contains a 1-stage thermostat with the function cooling or heating.
The humidity section contains 1-stage hygrostat with the function dehumidifying or humidifying.

Technical Specifications

Type:
Klima 500 Topline
Housing:
Aluminium housing with plastic side panels
Mounting:
Wall mount
Dimensions:
244 x 185 x 74 mm (whd)
Front:
Polycarbonate
Supply:
230 Vac 50/60 Hz (Max. 5VA)
Switch 0/1:
On/off switch (if present) with light indication.
Communication:
RS485 (only with ALFA-NET) (2x Twisted-pair cable: A,B,Gnd,+12Vdc)
Working temp:
-20/+50°C
Store temp.:
-20/+60°C
Working RH:
10/90% RH non condensing

1.2 thermostat section (left side):
Range:
-10,0/+90,0°C read out per 0,1°C
Temp. sensor:
SM811 2-wired, temperature sensor (1K PTC) 1K@25°C
Relay:
1xSPDT relais Max. 250Vac/10A (cos phi = 1)
Function:
Cooling or heating (Parm. 15)
1.3 Hygrostat section (right side):
Range:
0/+100% RH read out per 1% RH
Humidity sensor:
RH 95/2 3-wired, humidity sensor (1:0V,2:0-1V=0-100%RH, 3+12Vdc)
Relay:
1xSPDT relay Max. 250Vac/10A (cos phi = 1)
Function:
Dehumidifying or humidifying (Parm. 15)

Article number	Product name	Sensors	Control functions
905.000097	Klima 500 Topline	1	• • • •

MC3-SC

Technical Specifications

Type:
MC3-SC
Housing:
Monting plate with anodized aluminium housing
Dimensions:
308 x 191 x 100 mm
Front:
Anodized aluminium
Connections:
Connectors on pcb inside enclosure.

Supply:
12-15 Vdc (2A max)
Range:
-1/+50 bar
Inputs:
5x Pt 1000 tem. sensor
2x analogue input
16x digital input
Outputs:
8x analogue output
24x relays output
(12 for MC3-SC2)
RS485 output
Network:
1x ethernet for pc

The MC3-SC controller is based on the new MC3 hardware platform. The MC3-SC is a stepcontroller for controlling a maximum 8 compressors and 8 condensing fans, on base of the measured suction and discharge pressure and the adjusted setpoints.

There are two standard types available: The MC3-SC and the MC3-SC2 (for smaller installations). The choice between both types can be made by the required amound of in- and outputs.
The MC3-SC will be mounted on a DIN rail in a switch panel, from where all stages and variables of the cooling installation will be controlled.
Versatility and extensive control options are the unique points of the new MC3-SC.
Of course this stepcontroller also has the well know reliability of the VDH controllers.
The control comfort of the new MC3-SC is familiar and approved. This stepcontroller has a flexible interface which makes installation easy.
Configuring of the avaiable in- and outputs is done by it's own web page and a short parameter list.
The MC3-SC is developed with the experience of many years in the cooling industry.
Like all VDH control equipment this new stepcontrol is tested extensive with the TÜV certificate as result

The MC3-SC is developed in coöperation with compressor maunfactures and end users. Because of this the controller is suitable for many different compressor types, including screw compressors with capacity slider.

For increasing or decreasing from capacity can be done by:
Suction control:
• On/off control
• With or without valve lifting (multi stage compressor)
•Frequenty controlled or stepless controlled capacity slider
Discharge control:
• On/off control
•Frequenty controlled (EC fans)

The MC3-SC2DC is special developped for a very efficient control of a monoflow installation just to reach an optimal efficienty.

The MC3-SC offers the following possibilities for controlling and adjusting the user parameters:
•External via VASP software for Windows
•Locally via a touchscreen control panel

Touchscreen control panel
Via a 7" touch screen control panel the pressure values of the suction and discharge sensors can be read out very easely.
Besides that the screen also shows actual status of the connected compressors and the condensing fans. Via a hidden menu the language and parameters settings can be changed. An error or alarm message is shown and can be confirmed if the error or alarm is solved.
The control panel can be mounted in the door of the switch panel and is connected to the MC3-SC with a network cable.

Article number	Product name
907.100002	MC3-SC Step Control-3
907.100007	MC3-SC Step Control-2
907.100013	MC3-SC Step Control-2 DC
907.100020	MC3-SC Step Control-3
907.100022	MC3-SC Step Control-3 DC
907.100036	MC3-SC Step Control-3 DC
907.100049	MC3-SC Step Control-3 VC, Ammonia (NH3) pump
907.100057	MC3-SC Step Control-3 VC, Cascade 2-stage Propane/CO2
907.100071	MC3-SC touchscreen 7”

Alfanet 88

Technical Specifications

Type:
ALFANET 88
Housing:
Grey plastic
Dimensions:
106 x 90 x 58 mm (whd)
Supply:
12Vac/dc (Max. 45 mA)
Range:
-40,0 / +50,0°C per 0,1°C -1,0/+50,0 Bar per 0.1 Bar
Sensors:
SM 811 temperature-sensor PX 77/3 pressure sonsor
Communication:
ALFANET RS485-Network
Work temp.:
-20 / +50°C
Store temp.:
-20 / +60°C
Air humidity:
10 / 90% RH not condensing
Accuracy:
± 0.5% of range

The ALFANET 88 is a control to operate electronic expansion valves.

Emission takes place by means of a modulating pulse/pause control or a 0/10 Vdc P(1) signal. Valves of various makes and types can be used for this.

Measured pressure, calculated temperature, measured temperature, temperature difference or emission percentage can be read in the display. The mode key enables you to select the readout you want to view.

This controller is also available with a solid state output.

Article number	Product name
904.000963	Alfanet 88 EVR SSR -40/+50°C
904.000966	Alfanet 88 PID SSR -40/+50°C

Spraytronic

Technical Specifications

Type:
Spraytronic II
Housing:
Sheet steel painted silver gray
Dimentions:
217 x 155 x 85 mm (brackets), panel cutout 208 x 146 mm (-0/+1mm)
Connections:
On the back of plug-in bar
screw terminals
Front:
Polycarbonate with printing, IP-44
Control:
Via push buttons on the front
Display:
4-digit temp. display
4-digit setpoint display
4-digit dry time display
4-digit operating hours display IP-44
LEDs for relay and input status
Range:
0/+150°C, readout per 0.5°C

Supply:
230 Vac, 50/60 Hz (-10/+5%)
Inputs:
2x Pt-100 3-conductor according to DIN/IEC 751
Spray air detector
Potential free input contact for External On/Off
Potential free input contact for after-cooling thermostat
Relais:
SPST relay contact burner on/off
SPST relay contact supply fan
tor
SPST relay contact exhaust fan
(these relays 250V/10A not inductive, with common)
SPDT relay contact burner high
low (250V/10A not inductive)
analogue from 0/+10 Vdc (Rb min 10 KOhm)

The Spraytronic II is a complete control for a spray booth and consists of a combination of a control panel (Spraytronic II BP) for wall mounting and a main circuit board (Spraytronic II HP) for DIN-rail mounting, connected by a 4-wire connecting cable. The Spraytronic II main board has inputs for two Pt1000 temperature sensors, a spray air detector and three digital inputs for external on/off, fire detection and emergency stop. Various LMS input and output modules can be connected to the main board for additional functionality. The following LMS

modules are available:

LMS 4x Analogue out 0-10Vdc
LMS 6x Digital in
LMS 7x Relay

The control panel is equipped with two readout displays, where, among other things, the temperature,
setpoints, times and alarms can be read. Various push buttons and status LEDs provide clear operating status indication and easy operation. During production, the adjustable parameters are provided with standard settings. These settings are programmed by the the installer in a programming mode to adapt the Spraytronic II to local conditions. adapted to the local conditions. A clear manual is supplied.

Article number	Product name	Description
909.000002	DS10 IRS SENSOR 3/8"BSPDS10	
904.010009	Alfa 1-IRS	Spray detector for rail mounting
904.010081	Alfa 3-IRS	Spray detector for panel mounting
901.000461	Spraytronic II control panel	
901.000460	LMS control module Spraytronic II	
901.000214	LMS analogue output	
901.000451	LMS 6x Digital in I2C Module	
901.000443	LMS 7x Relais I2C-BUS	

Article number	Product name	Description
904.000699	Alfa 72 SP/DR -50+150°C	
904.010195	Alfanet 72 SP/DR PI	
903.000776	MC 885 SDHL -50/300°C 24Vac	
903.000777	MC 885 SDHL -50/300°C 100-260V	

Other

- Timers
- Interfaces
- Extension modules
- Power supplies

Alfa 800

Technical Specifications

Type:
ALfa 800
Housing:
Black ABS plastic
Dimensions:
35 x 77 x 71,5 mm (whd)
Front:
Polyester
Connections:
Screw terminals
Supply:
230 Vac 50/60 Hz (-10/+5%)
Function:
Timer functions
Settings:
By three program keys
Outputs:
SPDT relay contact 250V/16A (C-NO), 8A (C-NC) not inductive
Input:
Digital input

The Alfanet 800 series consists of various timers for panel mount.

The timer has a range from 0-999 seconds, minutes or hours.

Through the digital input contact the timer can be influenced external. Per example the timer can be started or stopped by closing the digital input.

The Alfa 800 series is supplied directly with 230Vac. Other supply voltages are available on request.

Article number	Product name	Description
904.010047	Alfanet 801	Pulse/pause controller
904.010048	Alfanet 802	Expiration timer
904.010044	Alfanet 803	Delayed rising timer
904.010059	Alfanet 804	ADS timer

MC3-IP Interface

The MC3 IP-Interface is developed as an intelligent portal between the VASP system or Alfanet and the company network. The interface converts all data from the connected controllers to the VASP or Alfanet monitoring software.

The interface offers you the possibility to send an e-mail message in case an error occurs on one of the controllers in the network. The e-mail will be sent to all e-mail addresses which the customer has programmed into the interface.

The e-mail shows the notification which is generated by the connected controller.

The log data will be stored on a SD card and will be available for a long period of time.
Be aware that controllers which have their own memory should be connected to the pc on a regular base to avoid loss of data.

The pc program for read out the controllers is only available for computers with Microsoft Windows®.
The versions Windows 7, 8 and 10 are supported.

Technical Specifications

Type:
MC3 IP Interface
Housing:
Plastic wall mounting house
Material:
ABS
Dimensions:
213 x 185 x 94 mm (whd)
Connections:
Screw terminals
Front:
Polycarbonate
Supply:
100-240 Vac; 50/60 Hz
Power cons.:
5 VA
Operation temp.:
-20 / +50°C
Store temp.:
-20 / +60°C
Humidity:
10 / +90% RH not condensing inputs and outputs
Communication:
RS 485 (9600 Baud) for the ALFANET (2x Twisted- pair shielded)
Enternet (10/100Mb) for communication to the network PC Software
PC Software:
Minimaal V3.0.0 of hoger
PC Software:
At least V3.0.0 Or higher

Article number	Product name
907.100006	MC3-IP Interface, Din-rail mounting
907.100024	MC3-IP Interface, Wall mounting

MC3-EM module

MC3-EM module
Certain MC2 and MC3 controllers can be equipped with an extension module (DIN mounting)
For example, a controller can be equipped with extra temperature sensor inputs or relay contacts.
For further information about the use of these extension modules, please contact the sales department of VDH Products BV.

Article number	Product name
907.100032	MC3-EM [1Do12]
907.100040	MC3-EM [1Di8Do6,1Di16]
907.100044	MC3-EM [1Ao16]
907.100054	MC3-EM [1Do12, 1Rth16]
907.100060	MC3-EM [1Di8Do6]
907.100061	MC3-EM [4Di2+4Ui2+8Uiout]
907.100062	MC3-EM [16xRth2]
907.100064	MC3-EM [1Dio, 1U2+2I3+4Rth+8o]
907.100070	MC3-EM [6Do8Di,3Ii2Ui7Rth]

LMS modules

Technical Specifications

Type:
LMS TRIAC 0-10V IN

Dimensions:
71 x 90 x 58 mm (whd)

Housing:
Grey plastic

Article number	Product name
901.000214	LMS analoge output
901.000236	LMS D230-6 module
901.000245	LMS triac module
901.000272	LMS PT100 module
901.000309	LMS 8x digital-in Alfanet
901.000315	LMS RH/PT-100 module
901.000399	LMS triac 0/10V in
901.000416	LMS Module 6x0/20mA RS485
901.000421	LMS Module 4x10K 2x0-10V
901.000443	LMS 7x Relais I2C-BUS
901.000446	LMS 4x 0/+10Vdc output Module
901.000451	LMS 6x Digital in I2C Module
901.000454	LMS PT-100 module
901.000463	LMS MAT module 22,5mm
901.000466	LMS RS485 Modbus Interf.2(8N2)
901.000471	LMS 7X Relais-785-SC Module
901.000477	LMS 4x Relais Module
901.000478	LMS 7x Relais RS485 Module
904.000947	LMS RS485 ModBus Interf.1(8N1)
904.000965	LMS RS485 ModBus Interf.1(8E1)

Power supplies

There are several VDH controllers which require power supplies, such as a 12v or 24v power supply.
Below is a small selection from our range of power supplies we can supply.
If the desired power supply is not listed, please contact VDH Products.

Article number	Product name
599.000040	Power supply Meanwell MDR 20-24
599.000032	Power supply Meanwell MDR 20-12
599.000060	Power supply Meanwell DR 15-24
599.000092	Power supply Meanwell HDR 15-12

APPENDIX

APPENDIX 1 Return form

1. Your data

Company name:

Contact person:

Address:

PC + Place:

Phone number:

E-mail:

Reference:

2. Article Retour

Article code	Quantity	Description

3. Reason of return (tick as applicable)

	Defect, transport damage
	Defect, guarantee request
	Calibration
	New, wrongly ordered customer
	New, wrongly delivered VDH
	Repair: Description:

Complete the form as completely as possible, save the file and mail it to support@vdhproducts.com

APPENDIX 1 Return form

Shipment:

Please enclose a copy of this form with your return on the outside of the package.

If the article does not meet the return conditions, VDH Products BV can refuse the return shipment. In that case, the return shipment will be returned. Return shipments must always take place in consultation with the Service & Support department of VDH Products BV.

Pack the return items in an outer box to prevent damage during transport.
Problems with the shipment at or by the company that takes care of the shipment to us are at the risk of the customer. Always keep your shipping receipt!

For questions you can contact our service & support department via e-mail support@vdhproducts.com

Return shipments must be sent carriage paid to:

VDH Products BV
Return Department
Produktieweg 1
9301 ZS RODEN
The Netherlands

APPENDIX 2 General conditions

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GENERAL CONDITIONS
for the
SUPPLY OF MECHANICAL, ELECTRICAL AND ELECTRONIC PRODUCTS
Brussels, March 2012

PREAMBLE

1. These General Conditions shall apply when the parties agree In Writing or otherwise thereto. Any modifications of or deviations from them must be agreed In Writing.

DEFINITIONS

2. In these General Conditions the following terms shall have the meanings hereunder assigned to them:
   - "Contract": the agreement In Writing between the parties concerning supply of the Product and all appendices, including agreed amendments and additions In Writing to the said documents;
   - "Gross Negligence": an act or omission implying either a failure to pay due regard to serious consequences, which a conscientious contracting party would normally foresee as likely to ensue, or a deliberate disregard of the consequences of such an act or omission;
   - "In Writing": communication by document signed by both parties or by letter, fax, electronic mail and by such other means as are agreed by the parties;
   - "the Product": the object(s) to be supplied under the Contract, including software and documentation.

PRODUCT INFORMATION

3. All information and data contained in general product documentation and price lists shall be binding only to the extent that they are by reference In Writing expressly included in the Contract.

DRAWINGS AND TECHNICAL INFORMATION

4. All drawings and technical! documents relating to the Product or Its manufacture submitted by one party to the other, prior or subsequent to the formation of the Contract, shall remain the property of the submitting party.
Drawings, technical documents or other technical information received by one party shall not, without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to a third party.

5. The Supplier shall, not later than at the date of delivery, provide free of charge information and drawings which are necessary to permit the Purchaser to install, commission, operate and maintain the Product. Such Information and drawings shall be supplied in the number of copies agreed upon or at least one copy of each. The Supplier shall not be obliged to provide manufacturing drawings for the Product or for spare parts.

ACCEPTANCE TESTS

6. Acceptance tests provided for in the Contract shall, unless otherwise agreed, be carried out at the place of manufacture during normal working hours.
If the Contract does not specify the technical! requirements, the tests shall be carried out in accordance with general practice in the appropriate branch of industry concerned in the country of manufacture.

7. The Supplier shall notify the Purchaser In Writing of the acceptance tests in sufficient time to permit the Purchaser to be represented at the tests. If the Purchaser is not represented, the test report shall be sent to the Purchaser and shall be accepted as accurate.

8. If the acceptance tests show the Product not to be in accordance with the Contract, the Supplier shall without delay remedy any deficiencies in order to ensure that the Product complies with the Contract. New tests shall then be carried out at the Purchaser's request, unless the deficiency was insignificant.

9. The Supplier shall bear all costs for acceptance tests carried out at the place of manufacture. The Purchaser shall, however, bear all travelling and living expenses for his representatives in connection with such tests.

DELIVERY. PASSING OF RISK

10. Any agreed trade term shall be construed in accordance with the INCOTERMS@ in force at the formation of the contract. If no trade term has been specifically agreed, the delivery shall be Free Carrier (FCA) at the place named by the Supplier.

If, in the case of delivery Free Carrier, the Supplier, at the request of the Purchaser, undertakes to send the Product to its destination, the risk will pass not later than when the Product is handed over to the first carrier.
Partial delivery shall not be permitted, unless otherwise agreed.

TIME FOR DELIVERY. DELAY

11. If the parties, instead of specifying the date for delivery, have specified a period of time within which delivery shall take place, such period shall start to run as soon as the Contract is entered into and all agreed pre-conditions to be fulfilled by the Purchaser have been satisfied, such as official formalities, payments due at the formation of the Contract and securities.

12. If the Supplier anticipates that he will not be able to deliver the Product at the time for delivery, he shall forth with notify the Purchaser thereof In Writing, stating the reason and, if possible, the time when delivery can be expected.

If the Supplier fails to give such notice, the Purchaser shall be entitled to compensation for any additional casts
which he incurs and which he could have avoided had he received such notice.

13. If delay in delivery is caused by any of the circumstances mentioned in Clause 41, by an act or omission on the part of the Purchaser, including suspension under Clauses 21 and 44, or any other circumstances attributable to the Purchaser, the Supplier shall be entitled to extend the time for delivery by a period which is necessary having regard to all the circumstances of the case. This provision shall apply regardless of whether the reason for the delay occurs before or after the agreed time for delivery.

14. If the Product is not delivered at the time for delivery the Purchaser shall be entitled to liquidated damages from the date on which delivery should have taken place. The liquidated damages shall be payable at a rate of 0.5 per cent of the purchase price for each commenced week of delay.

The liquidated damages shall not exceed 7.5 per cent of the purchase price. If only part of the Product is delayed, the liquidated damages shall be calculated on that part of the purchase price which is attributable to such pad of the Product as cannot in consequence of the delay be used as intended by the parties. The liquidated damages shall become due at the Purchaser's demand In Writing but not before delivery has been completed or the Contract is terminated under Clause 15. The Purchaser shall forfeit his right to liquidated damages if he has not lodged a claim In Writing for such damages within six months after the time when delivery should have taken place.

15. If the delay in delivery is such that the Purchaser is entitled to maximum liquidated damages under Clause 14 and if the Product is still not delivered, the Purchaser may In Writing demand delivery within a final reasonable period which shall not be less than one week. If the Supplier does not deliver within such final period and this is not due to any circumstances which are attributable to the Purchaser, then the Purchaser may by notice In Writing to the Supplier terminate the Contract in respect of such part of the Product as cannot in consequence of the Supplier's failure to deliver be used as intended by the parties. If the Purchaser terminates the Contract he shall be entitled to compensation for the loss he suffers as a result of the Supplier's delay, including any consequential and indirect loss. The total compensation, including the liquidated damages which are payable under Clause 14, shall not exceed 15 per cent of that part of the purchase price which is attributable to the pad of the Product in respect of which the Contract is terminated. The Purchaser shall also have the right to terminate the Contract by notice In Writing to the Supplier if it is clear from the circumstances that there will occur a delay in delivery which, under Clause 14, would entitle the Purchaser to maximum liquidated damages. In case of termination for this reason, the Purchaser shall be entitled to maximum liquidated damages and compensation under the third paragraph of this Clause 15.

16. Liquidated damages under Clause 14 and termination of the Contract with limited compensation under Clause 15 shall be the only remedies available to the Purchaser in case of delay on the part of the Supplier. All ether claims against the Supplier based on such delay shall be excluded, except where the Supplier has been guilty of Gross Negligence.

17. If the Purchaser anticipates that he will be unable to accept delivery of the Product at the time for delivery, he shall forthwith notify the Supplier in Writing thereof, stating the reason and, if possible, the time when he will be able to accept delivery. If the Purchaser fails to accept delivery at the time for delivery, he shall nevertheless pay any part of the purchase price which becomes due at the time for delivery, as if delivery had taken place at the time for delivery. The Supplier shall arrange for storage of the Product at the risk and expense of the Purchaser. The Supplier shall also, if the Purchaser so requires, insure the Product at the Purchaser's expense.

18. Unless the Purchaser's failure to accept delivery is due to any such circumstance as mentioned in Clause 41, the Supplier may by notice In Writing require the Purchaser to accept delivery within a final reasonable period.

If, for any reason which is not attributable to the Supplier, the Purchaser fails to accept delivery within such period, the Supplier may by notice In Writing terminate the Contract in whole or in pad. The Supplier shall then be entitled to compensation for the loss he suffers by reason of the Purchaser's default, including any consequential and indirect loss. The compensation shall not exceed that part of the purchase price which is attributable to that part of the Product in respect of which the Contract is terminated.

PAYMENT

19. Payment shall be made within 30 days after the date of invoice.
Unless otherwise agreed, the purchase price shall be paid with one third at the formation of the Contract and one third when the Supplier notifies the Purchaser that the Product, or the essential part of it, is ready for delivery. The remaining part of the purchase price shall be paid when the entire Product is delivered.

20. Whatever the means of payment used, payment shall not be deemed to have been effected before the Supplier's account has been irrevocably credited for the amount due.

21. If the Purchaser fails to pay by the stipulated date, the Supplier shall be entitled to interest from the day on which payment was due and to compensation for recovery costs. The rate of interest shall be as agreed between the parties or otherwise 8 percentage points above the rate of the main refinancing facility of the European Central Bank. The compensation for recovery costs shall be 1 per cent of the amount for which interest for late payment becomes due. In case of late payment and in case the Purchaser fails to give an agreed security by the stipulated date the Supplier may, after having notified the Purchaser In Writing, suspend his performance of the Contract until he receives payment or, where appropriate, until the Purchaser gives the agreed security.

If the Purchaser has not paid the amount due within three months the Supplier shall be entitled to terminate the Contract by notice In Writing to the Purchaser and, in addition to the interest and compensation for recovery costs according to this Clause, to claim compensation for the loss he incurs. Such compensation shall not exceed the agreed purchase price.

RETENTION OF TITLE

22. The Product shall remain the property of the Supplier until paid for in full to the extent that such retention of title is valid under the relevant law. The Purchaser shall at the request of the Supplier assist him in taking any measures necessary to protect the Supplier's title to the Product. The retention of title shall not affect the passing of risk under Clause 10.

LIABILITY FOR DEFECTS

23. Pursuant to the provisions of Clauses 24-39, the Supplier shall remedy any defect or nonconformity (hereinafter termed defect(s)) resulting from faulty design, materials or workmanship.

24. The Supplier shall not be liable for defects arising out of materials provided or a design stipulated or specified by the Purchaser.

25. The Supplier shall only be liable for defects which appear under the conditions of operation provided for in the Contract and under proper use of the Product.

26. The Supplier shall not be liable for defects caused by circumstances, which arise after the risk has passed to the Purchaser, e.g. defects due to faulty maintenance, incorrect installation or faulty repair by the Purchaser or to alterations carried out without the Supplier's consent In Writing. The Supplier shall neither be liable for normal wear and tear nor for deterioration.

27. The Supplier's liability shall be limited to defects which appear within a period of one year from delivery. If the use of the Product exceeds that which is agreed, this period shall be reduced proportionately.

28. When a defect in a part of the Product has been remedied, the Supplier shall be liable for defects in the repaired or replaced part under the same terms and conditions as those applicable to the original Product fora period of one year. For the remaining parts of the Product the period mentioned in Clause 27 shall be extended only by a period equal to the period during which and to the extent that the Product could not be used as a result of the defect.

29. The Purchaser shall without undue delay notify the Supplier In Writing of any defect which appears. Such notice shall under no circumstances be given later than two weeks after the expiry of the period given in Clause

27 or the extended period(s) under Clause 28, where applicable. The notice shall contain a description of the defect. If the Purchaser fails to notify the Supplier In Writing of a defect within the time limits set forth in the first paragraph of this Clause, he shall lose his right to have the defect remedied. Where the defect is such that it may cause damage, the Purchaser shall immediately inform the Supplier in Writing. The Purchaser shall bear the risk of damage to the Product resulting from his failure so to notify. The Purchaser shall take reasonable measures to minimize damage and shall in that respect comply with instructions of the Supplier.

30. On receipt of the notice under Clause 29 the Supplier shall at his own cost remedy the defect without undue delay, as stipulated in Clauses 23-39. The time for remedial work shall be chosen in order not to interfere unnecessarily with the Purchaser's activities. Repair shall be carried out at the place where the Product is located unless the Supplier deems it more appropriate that the Product is sent to him or a destination specified by him.

If the defect can be remedied by replacement or repair of a detective part and if dismantling and re-installation of the part do not require special knowledge, the Supplier may demand that the detective part is sent to him or a destination specified by him. In such case the Supplier shall have fulfilled his obligations in respect of the defect when he delivers a duly repaired pad or a part in replacement to the Purchaser.

31. The Purchaser shall at his own expense provide access to the Product and arrange for any intervention in equipment other than the Product, to the extent that this is necessary to remedy the defect.

32. Unless otherwise agreed, necessary transport of the Product or parts thereof to and from the Supplier in connection with the remedying of defects for which the Supplier is liable shall be at the risk and expense of the Supplier. The Purchaser shall follow the Supplier’s instructions regarding such transport.

33. Unless otherwise agreed, the Purchaser shall bear any additional costs which the Supplier incurs for remedying the defect caused by the Product being located in a place other than the destination stated at the formation of the Contract for the Supplier’s delivery to the Purchaser or - if no destination has been stated - the place of delivery.

34. Detective parts which have been replaced shall be made available to the Supplier and shall be his property.
35. If the Purchaser has given such notice as mentioned in Clause 29 and no defect is found for which the Supplier is liable, the Supplier shall be entitled to compensation for the costs he incurs as a result of the notice.

36. If the Supplier does not fulfill his obligations under Clause 30, the Purchaser may by notice In Writing fix a final reasonable period for completion of the Supplier’s obligations, which shall not be less than one week.

If the Supplier fails to fulfill his obligations within such final period, the Purchaser may himself undertake or employ a third party to undertake necessary repair work at the risk and expense of the Supplier. Where successful repair work has been undertaken by the Purchaser or a third party, reimbursement by the Supplier of reasonable costs incurred by the Purchaser shall be in full settlement of the Supplier's liabilities for the said defect.

37. Where the Product has not been successfully repaired, as stipulated under Clause (36,a) the Purchaser shall be entitled to a reduction of the purchase price in proportion to the reduced value of the Product, provided that under no circumstances shall such reduction exceed 15 per cent of the purchase price, or b) where the defect is so substantial as to significantly deprive the Purchaser of the benefit of the Contract as regards the Product or a substantial part of it, the Purchaser may terminate the Contract by notice In Writing to the Supplier in respect of such part of the Product as cannot in consequence of the defect be used as intended by the parties. The Purchaser shall then be entitled to compensation for his loss, costs and damages up to a maximum of 15 percent of that part of the purchase price which is attributable to the part of the Product in respect of which the Contract is terminated.

38. Notwithstanding the provisions of Clauses 23-37 the Supplier shall not be liable for defects in any part of the Product for more than one year from the end of the liability period referred to in Clause 27 or from the end of any other liability period agreed upon by the parties.

39. Save as stipulated in Clauses 23-38, the Supplier shall not be liable for defects. This applies to any loss the defect may cause including loss of production, loss of profit and other indirect loss' This limitation of the Supplier's liability shall not apply if he has been guilty of Gross Negligence.

ALLOCATION OF UABIUTY FOR DAMAGE CAUSED BY THE PRODUCT

40. The Supplier shall not be liable for any damage to property caused by the Product after it has been delivered and whilst it is in the possession of the Purchaser. Nor shall the Supplier be liable for any damage to products manufactured by the Purchaser or to products of which the Purchaser’s products form a pad.

If the Supplier incurs liability towards any third party for such damage to property as described in the preceding paragraph, the Purchaser shall indemnify, defend and hold the Supplier harmless.
If a claim for damage as described in this Clause is lodged by a third party against one of the parties, the latter party shall forthwith inform the other party thereof In Writing. The Supplier and the Purchaser shall be mutually obliged to let themselves be summoned to the court or arbitral tribunal examining claims for damages lodged against one of them on the basis of damage allegedly caused by the Product. The liability between the Supplier and the Purchaser shall however be settled in accordance with Clause 46. The limitation of the Supplier's liability in the first paragraph of this Clause shall not apply where the Supplier has been guilty of Gross Negligence.

FORCE MAJEURE

41. Either party shall be entitled to suspend performance of his obligations under the Contract to the extent that such performance is impeded or made unreasonably onerous by Force Majeure, meaning any of the following circumstances: industrial disputes and any other circumstance beyond the control of the parties such as fire, war, extensive military mobilization, insurrection, requisition, seizure, embargo, restrictions in the use of power, currency and export restrictions, epidemics, natural disasters, extreme natural events, terrorist acts and defects or delays in deliveries by sub-contractors caused by any such circumstance referred to in this Clause. A circumstance referred to in this Clause whether occurring prior to or after the formation of the Contract shall give a right to suspension only if its effect on the performance of the Contract could not be foreseen at the time of the formation of the Contract.

42. The party claiming to be affected by Force Majeure shall notify the other party In Writing without delay on the intervention and on the cessation of such circumstance. If a party fails to give such notice, the other party shall be entitled to compensation for any additional costs which he incurs and which he could have avoided had he received such notice. If Force Majeure prevents the Purchaser from fulfilling his obligations, he shall compensate the Supplier for expenses incurred in securing and protecting the Product.

43. Regardless of what might otherwise follow from these Genera! Conditions, either party shall be entitled to terminate the Contract by notice In Writing to the other party if performance of the Contract is suspended under Clause 41 for more than six months.

ANTICIPATED NON-PERFORMANCE

44. Notwithstanding other provisions in these General Conditions regarding suspension, each party shall be entitled to suspend the performance of his obligations under the Contract, where it is clear from the circumstances that the other party is not going to perform his obligations. A party suspending his performance of the Contract shall forthwith notify the ether party thereof In Writing.

CONSEQUENTIAL LOSSES

45. Save as otherwise stated in these General Conditions there shall be no liability for either party towards the other party for loss of production, loss of profit, loss of use, loss of contracts or for any other consequential or indirect loss whatsoever.

DISPUTES AND APPLICABLE LAW

46. All disputes arising out of or in connection with the Contract shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules.

47. The Contract shall be governed by the substantive law of the Supplier's country.

This is an Orgalime publication. Orgalime represents the mechanical, electrical, electronic and metalworking industries in Europe.

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