OUMAN BUILDING AUTOMATION Price list

2024

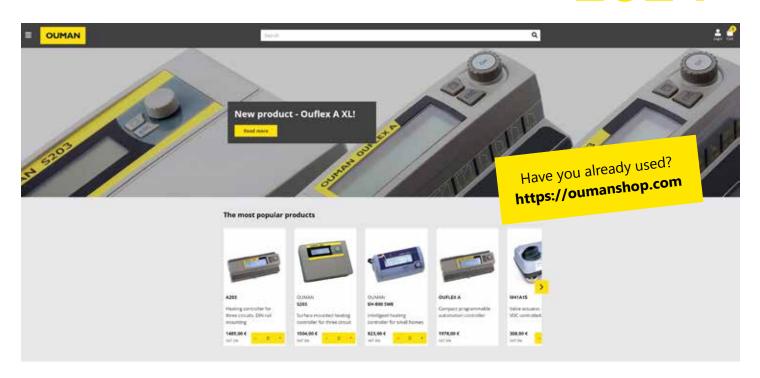




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PRODUCT CATEGORIES:









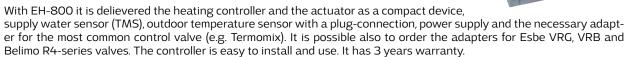




Heating and air handling unit controllers

EH-800 AND EH-800B HEATING CONTROLLER FOR SMALL HOMES

A new heating controller with one heating circuit, which is also possible to expand to have two heating circuits or alternatively to control two heating sources simultaneously. The controller can be used either with a home network or an internet web browser (not EH-800B). It is also possible to connect it to GSM.



EH-800 OMA0559	Heating controller	B1	823
EH-800B 0MA0558	Heating controller without Internet option	B1	722
SOV-ESBE2 OMA0266	Adapter for Esbe VRG and VRB valves	B1	31

EXP-800 EXPANSION PACKAGE FOR THE EH-800 CONTROLLERS

Another heating circuit / for parallel control of another source of heat

Product package content: Pre-connected expansion unit, connecting cable, Belimo HTC24-SR valve engine, adapter for the most common mixing valve, TMS-3M surface temperature sensor and the introduction of the necessary instructions.



EXP-800 0MA0160	Expansion package for the EH-800 controllers	B1	389
ONACIOO			005

EXU-800 EXTERNAL UNIT FOR EH-800 AND EH-800B

External unit for EH-800 and EH-800B

EXU-800

OMA0161

OMA0598

External unit EXU-800 makes it possible to control a second valve actuator, another relay and also add two measurement information to the EH-800 heating controller.

EXU-800 product packaging containing the encapsulated control card, RJ45 cord and the coupling guide.



B1

85

290

OPTIONAL E	QUIPMENT		
TMR OMA0011	Room sensor (NTC10)	A1	48
TMR/SP OMAO310	Room sensor with fine-tuning knob	A1	55
TMS-4M 0MA0321	Surface sensor (NTC10), connection cable 4 m	A1	31
CO1A 0MA0043	Thermostat, surface mounting, 20 90 °C, differential range 7 °C	A2	74
GSMMOD11	OUMAN GSM/GPRS -modem for EH-800	C1	290

Heating and air handling unit controllers

OUMAN S203 HEATING CONTROLLER FOR THREE CIRCUITS

Ouman S203 is a new generation wall-mounted heating controller. Its versatility, intelligence and openness make it an ideal heating controller for all water circulation heating systems. Ouman S203 is really easy to use - informative display panel and GSM Control - feature enable reliable use anytime, anywhere. S203 can be connected to Ounet-service via Oulink-ETH-adapter (TCP/IP, optional) or other monitoring systems using a Modbus RTU.



- Operating voltage: 230 VAC, 50 Hz
- The internal 24 V power source, total load capacity of max. 1 A/23 VA
- Dimensions W230 x H160 x D60

S203 OMA0253	Heating controller for three circuits (2 heating circuits, 1 domestic hot water circuit)	A1	1504
RB-40 0MA0249	External relay unit in casing, 4 pcs changeover relays (24V, 250VAC/16A), IP66	A1	120

OUMAN C203 HEATING CONTROLLER FOR THREE CIRCUITS

Ouman C203 is a new generation DIN-rail mounted heating controller. Its versatility, intelligence and openness make it an ideal heating controller for all water circulation heating systems. Ouman C203 is really easy to use - informative display panel and GSM Control - feature enable reliable use anytime, anywhere! C203 can be connected to Ounet-service via Oulink-ETH-adapter (TCP/IP, optional) or other monitoring systems using a Modbus RTU.



- Operating voltage: 230 VAC, 50 Hz
- The internal 24 V power source, total load capacity of max. 0.4A/10VA
- Dimensions W214 (13M) x H90 x D94

C203 OMA0044	Heating controller for three circuits (2 heating circuits, 1 domestic hot water circuit)	A1	1167
A203 OMA0650	Heating controller for three circuits (2 heating circuits, 1 domestic hot water circuit Built in ethernet and WEB-UI	A1	1485

OUMAN H23 HEATING CONTROLLER FOR THREE CIRCUITS

Ouman H23 is suitable for every house with central water heating. H23 is open to different types of remote monitoring solutions. House heating can now be monitored and controlled from the display of a GSM-phone, PC, and from the controller. Alarm messages can be received as text messages into a GSM-phone. H23 can be connected to Ounet-service via Oulink-ETH-adapter (TCP/IP, optional) or other monitoring systems using a Modbus RTU.



- Operating voltage: 230 VAC, 50 Hz
- The internal 24 V power source, total load capacity of max. 1A/23VA
- Dimensions W230 x H160 x D60
- Three switches on the cover for circulation pumps

H23 0MA0180	Heating controller for three circuits (2 heating circuits, 1 domestic hot water circuit)	1379
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RU23 SCREEN UNIT FOR ROOM CONTROLLER

The Ouman RU23 room controller screen unit works with the programmable Ouflex product family. Not in direct sunlight. The device is intended for indoor installation.



- Capacitive 2.3" TFT touch screen
- Built-in 10K NTC sensor, external NTC sensor option
- IP20
- Dimensions 88x88x35. Mechanically designed to fit the common 55x55 frames (Schneider Exxact, Merten, Gira, Elko...)
- Operating voltage 12-40 VDC, power needs 0,5W
- Modbus RTU master/slave
- Operating temperature +5...+40°C

RU23	Screen unit for room controller	۸1	140
OMA0560	Screen unit for room controller	Δ I	140

GSM modems

OUMAN GSM MODEMS

Delivery includes GSM modem, DIN bracket, AC adapter, a separate power cable, data cable, and accessory bag attachment.



GSMMOD10 OMA0597	OUMAN GSM/GPRS modem for EH-105 and EH-200 series controllers	C1	290
GSMMOD11 OMA0598	OUMAN GSM/GPRS modem for EH-800, Ouflex M and Ouflex C controllers	C1	290
GSMMOD12 OMAO599	OUMAN GSM/GPRS modem for Ouman Plus and Ouman Ouflex	C1	309

ANT1 EXTERNAL ANTENNA

- Magnet antenna
- Antenna cable 2,5 m, interface FME
- Antenna extension cable ANT-C-10M, see page 9.

ANT1 0MA0035	External antenna for Ouman GSM-modeem	C1	41	
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Casing packages

K118 CASING PACKAGE, 18 MODULES

Contents:

- casing (enclosure rating IP 54), 1 x 18 modules, size: 403 x 333 x 129 [mm]
- transformer (230/24 VAC, capacity 10 VA)
- master switch

K118 OMA189	Casing package 18 modules (one DIN rail)	C2	150
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K212 CASING PACKAGE, 24 MODULES

Contents:

- casing (enclosure rating IP54); 12 + 3 modules, size: 295 x 457 x 129 [mm]
- transformer (230 / 24 VAC, capacity 40 VA)
- master switch

K212	Casing package 24 modules (two DIN rails)	C2	153
OMA0190	casing package 24 modules (two bit rails)	OZ	133

K218 CASING PACKAGE, 36 MODULES

Contents:

- casing (enclosure rating IP 54), 2 x 18 modules, size: 403 x 483 x 129 [mm]
- transformer (230/24 VAC, capacity 40 VA)
- · master switch

K218 OMA0192	Casing package 36 modules (two DIN rails)	C2	224

K312 CASING PACKAGE, 36 MODULES

Contents:

- casing (enclosure rating IP54); 12 + 12 + 2 modules, size: 295 x 457 x 129 [mm]
- transformer (230 / 24 VAC, capacity 63 VA)
- · master switch

\sim	202
U2	202
	C2

K318 CASING PACKAGE, 54 MODULES

Contents:

- casing (enclosure rating IP54); 18 + 12 + 11 modules, size: 403 x 630 x 129 [mm]
- transformer 24 VAC, capacity 63 VA, 12 VDC 24W
- master switch

K318 0MA0194	Casing package 54 modules (three DIN rails)	C2	295	

K412 CASING PACKAGE, 48 MODULES

Contents:

- casing (enclosure rating IP54); 12 + 12 + 12 + 2 modules, size: 665 x 295 x 129 [mm]
- transformer 230 / 24 VAC, capacity 63 VA
- · master switch

K412 OMA0553 Casing package 48 modules (three DIN rails) C2	275

Freely programmable automation units

OUMAN OUFLEX A FREELY PROGRAMMABLE AUTOMATION UNIT

Ouflex A is a freely programmable and DIN-rail-attachable building automation system for control and monitoring. Ouflex A includes 34 I/O-points, and also versatile data transfer and field bus connections. In addition, the device contains 24 VAC and 15 VDC outputs. Display unit is detachable, and can be relocated. It is possible to increase the number of I/O-points with external I/O-modules via bus connections. The DIN-standard-compatible structure of the Ouflex A device enables installation to most common cabinets. Detachable strip connectors make installation easier.



Ouflex A I/O-points

- 16 pcs universal measurements (UI)
- 2 pcs digital inputs (DI)
- 6 pcs 0...10V analog outputs (A0)

Data transfer connections

- 3 pcs RS-485 bus connections
- USB-host-connection
- Ethernet

- 2 pcs change-over contact relays (DO)
- 4 pcs normally open contact relays (DO)
- 4 pcs 24 VAC Triac-outputs (TR)

Operating voltage

24 VAC, 50 Hz

Access-functionality option is built-in to the all Ouflex-devices. Activation as an option.

Ouman Access is flexible way to get remote connection to the automation device. Access can use internet connection that already exists in the building. That's why internet connection is immediately ready to use. Access remote connection is device-specific and the service is available the whole life cycle of the automation device.

OUFLEX A OMA0518	Freely programmable automation unit	A1	1978
OUFLEX A XL OMA0634	A more efficient and faster version compared to. Ouflex A. Program capacity +50%. Same I/O points.	A1	2334

OPTIONS

GSMMOD12 OMAO599	OUMAN GSM/GPRS -modem for Ouflex.	C1	309
OUMAN LCD FRAME GREY OMAO519	Wall installation frame for Ouflex	C1	33
OUMAN LCD GREY OMA0658	Display for Ouflex	A1	135

OUMAN OUFLEX M BA FREELY PROGRAMMABLE AUTOMATION UNIT

Operating voltage 24 VAC or 24 VDC, local display 132 x 64 px.

Ouflex M BA I/O points

- 15 pcs. universal inputs (UI)
- 4 pcs. 0...10 V analog outputs (AO)
- 6 pcs. relay outputs NO, 230V 5A
- 1 PWM output (heating control)

Data transfer connections

- 2 pcs. RS-485 bus
- 2 pcs. RS-232 bus
- 1 USB device
- Ethernet with M-LINK

OUFLEX M BA OMAO496	Freely programmable automation unit	A1	978
OUFLEX M LCD KIT GREY OMA0527	Ouflex M LCD with cable and frame	A1	184

I/O-EXTENSION UNITS

I/O-extension units are used to increase I/O capacity of the Ouflex device. Units are DIN-rail attachable and possible to connect to bus. They are easy to decentralize as needed. I/O-extension units have the necessary 24 VAC power supply connectors for field devices.

Operating voltage

24 VAC, 50 Hz



Measurements: width 213,5 mm (13M), height 90 mm, depth 93,3 mm

FLEX COMBI 32 OMA0526	16 pcs universal inputs (UI) 6 pcs 010V analog outputs (AO)	2 pcs change-over contact relays (DO) 4 pcs normally open contact relays (DO) 4 pcs 24 VAC Triac-outputs (TR)	A1	782
FLEX COMBI 21 OMA0524	9 pcs universal inputs (UI) 2 pcs 010V analog outputs (AO)	2 pcs change-over contact relays (DO) 4 pcs normally open contact relays (DO) 4 pcs 24 VAC Triac-outputs (TR)	A1	519
FLEX UI 16 OMA0523	16 pcs universal inputs (UI)		A1	343







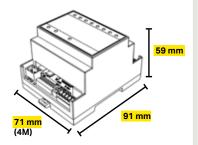


FLEX UI8 is a DIN-rail-attachable Modbus RTU input module which can be connected to RS-485 bus. It has 8 configurable universal inputs.

Supported signals and sensor types are:

- Transmitters 0-10 V or 0/4-20 mA
- Supported passive sensors: NTC10, NTC1.8, NTC2.2 ja NTC20 Ni 1000 LG, Ni 1000 DIN 43760, Pt 1000
- Potential free digital contact
- Potential free pulse counter (min 30ms)

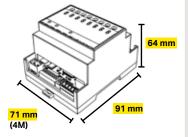
Operating voltage: 24 VAC/VDC (-10%...+20%), 50/60 Hz



FLEX A08 is a DIN-rail-attachable Modbus RTU output module which can be connected to RS-485 bus. It has 8 analog outputs.

- Output voltage range 0...10V
- Output current max. 7mA/output
- · Each output has AUTO-MANUAL switch.
- Manual position is controlled via potentiometer in each channel separately

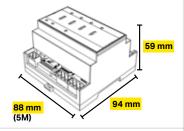
Operating voltage: 24 VAC/VDC (-10%...+20%), 50/60 Hz



FLEX D04-R is a DIN-rail-attachable Modbus RTU relay unit which can be connected to RS-485 bus. It has 4 relay controls.

- In each relay control it is possible to choose either the automatic control or foced ON or OFF control (ON - AUTO- OFF).
- Change-over contact relay 230 VAC/ 4A or 24 VDC/4A
- Easy to install in electrical cabinet

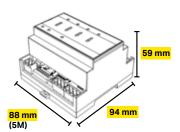
Operating voltage: 24 VAC/VDC (-10%...+20%), 50/60 Hz



FLEX DO4-TRS is a DIN-rail-attachable Modbus RTU triac module which can be connected to RS-485 bus. It has 4 AC triac switches.

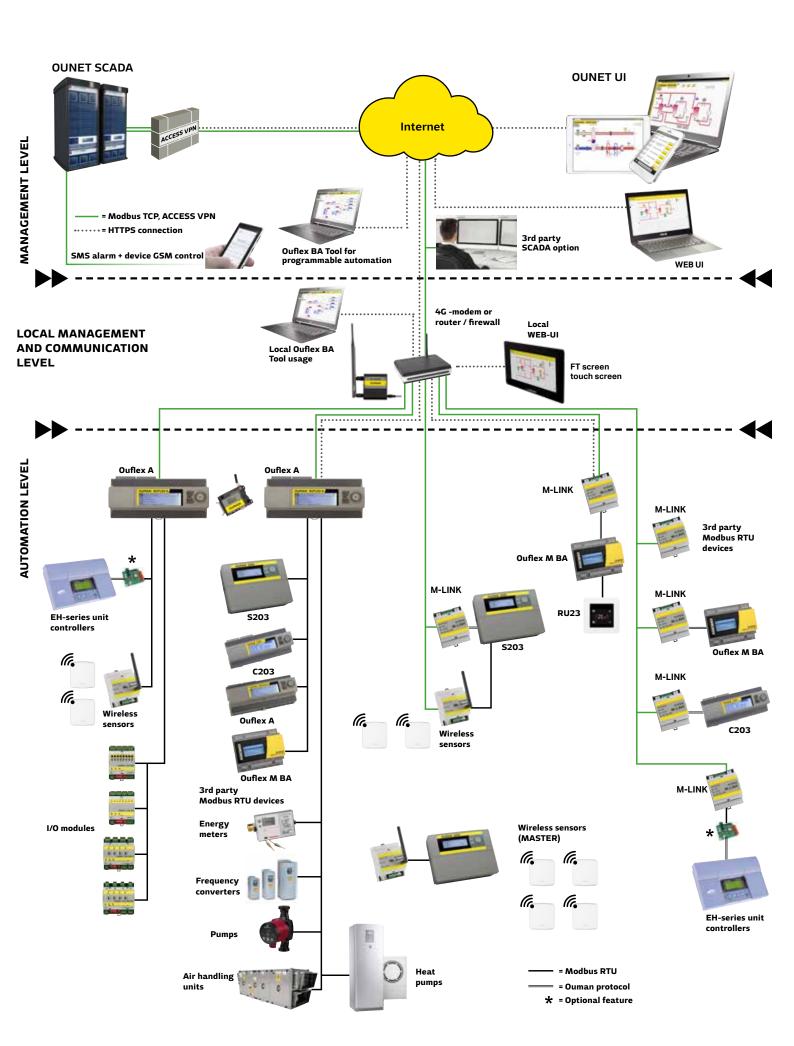
- Each triac control has 3 stage switch for selection between automatic control, forced ON or OFF (ON - AUTO - OFF).
- 24...230VAC, max 1A/output
- Potential-free AC switch
- DC controls require a supplementary relay in installation

Operating voltage: 24 VAC/VDC (-10%...+20%), 50/60 Hz



FLEX UI8 OMAO471	Universal input module	A1	315
FLEX AO8 OMAO472	Universal output module	A1	277
FLEX DO4-R OMA0473	Universal relay module	A1	227
FLEX DO4-TRS OMA0474	Universal triac module	A1	214

Building automation system topology



ACCESS V

Ouman system components

Ouman Access server

- Secure VPN connection
- Plug & play connectivity
- Including name server (DHCP)
- Creating easy access and secure connection to devices.
- Customer register functionality for OEMs offers capability to connect devices securely to internet and gives possibility to create own solution based web interface for specific



Ouflex BA Tool

- Uses secure VPN connection to devices in the field
- Remote plug & play connection to devices
- Upload/download of applications
- Online process monitoring
- Automatic updates
- Free trial for 14 days
- Software license available on demand for certified



OUNET browser UI (HTML5)

OUNET in mobile or tablet (HTML5)

OUNET SCADA solution in cloud service

- Cloud solution offers maintenance free usage
- Use your OUNET from any location by using web browser
- Only one login is needed to access all your facilities/targets
- Enables easy process management and system fine tuning
- Alarm routing by using email and SMS. Also alarm groups avail-
- Target calendar with diary function for easy follow up of tasks
- Trend data is stored to cloud for further analysis and reports
- Flexible report generation for all stored trend data
- Automated report sending to selected receivers



4G-MOD2

- Compact and meets industry level requirements
- Easy installation
- Optional external antenna available
- Suitable for any operator SIM card which supports mobile data



2G GSM SMS Modem

- Compact and meets industry level requirements
- Easy installation
- Optional external antenna available
- SMS alarm and device GSM control via SMS



FT screen touch screen

- Can be used for ounet.fi or local WEB UI browsing
- Capacitive touch screen
- Available in size 7",10" and 15"

Ouflex A



Programmable controller platforms

- Three device platforms available (A,C and M)
- Platform specific template available in Ouflex
- Easy and fast forward programming with ready made library components
- Built-in Access and TCP/IP modbus -with C and M platforms M-LINK device is required
- Remote device management
- Read/Write functions trough controller gateway
- Easy to connect new Modbus devices (TCP/IP and RTU)
- External display available for C & M platforms
 - A platform comes with detachable display



Ouman Wireless

- Easy and fast installation
- Any browser can be used to access base station data
- Good radio coverage with 868Mhz mesh network
- Built-in secure Access VPN functionality in WL-base

Sensors are providing temperature, humidity and ad-

Sensors can be used as routers with external power supply



- ditional auxiliary measurement
- Sensors are povered with standard AA batteries



- Modbus TCP/IP and RTU communication
- Intelligent calculation of collected data in base sta-
- Automated average calculation of measurements e.g. for heating curve optimization



M-LINK - new model with more functions



- Can be used similarly like previous Oulink model
- Provides remote tool management for C & M plat-
- Modbus TCP/IP to Modbus RTU gateway converter for any 3th party RTU slave device
- **OPC UA communication protocol**



Ouflex M BA



Ouflex I/O modules

- These I/O modules can be used to expand controller 10 capabilities
- Modules are compatible with any systems supporting Modbus RTU
- UI8 is configurable input module with resistive sensors, digital contacts, pulse counters and transmitters with voltage and mA outputs
- A08 is analog output module with 8 pcs of 0-10V outputs. Selection between automatic and manual state with switches.
- DO4-R module includes four bistable relays.
- DO4-TRS is module with four triac switches from 24VAC up to 240VAC





OUMAN unit controllers

- New generation controllers based on Ouflex platform
- **Built-in Modbus RTU bus**
- Easy conficuration with setup wizard
- Software version can be updated by using SD
- With OULINK device optional Modbus TCP/IP connection and Access VPN functionality for secure connection and easy integration to OUNET SCADA svstem.





Energy



Pumps



Air handling units



Frequency converters

Ouman Ounet

OUNET WEB BASED SCADA FOR BUILDING AUTOMATION

Ounet is a modern web-based SCADA for building automation. It enables fluent control of technical building services from any location and whenever needed. Ounet provides effective, easy-to-use tools for property management and maintains the appropriate conditions.

OUNET Web based SCADA for building automation

222/year/target/1500 points



Technical details

Languages: Finnish, English, Swedish, Estonian

Technology: HTML5

Browsers: Internet Explorer/Edge, Chrome, Firefox, Safari

Alarm forwarding: SMS and email Address: www.ounet.fi

Customer devices

Operating systems: Windows, Android, IOS, Linux

Recommended screen size: 3,2" and larger

Screen technology: Passive screens or touchscreens

Display modes: Mobile and desktop

FT-Screen touch screen panels

- Cutout installation, fits to covers and doors, IP65
- · Capacitive Android touch screen
- · Can be used for browsing ounet.fi or local WEB UI



FT-SCREEN 7 OMB0523	iSMA-D-PA7C-B1-EU 7" capacitive touch screen	C2	590**
FT-SCREEN 10 OMB0517	iSMA-D-PA10C-B1-EU 10.1" capacitive touch screen	C2	962**
FT-SCREEN 15 OMB0519	iSMA-D-PA15C-B1-EU 15.6" capacitive touch screen	C2	1166**
FT-SCREEN 10 FRAME OMA0640	Surface mounting frame for 10" touch screen	C2	30

M-LINK interface converter

The M-LINK interface converter can be used to connect Ouman controllers and 3rd party equipment via the RTU interface to the Ounet SCADA solution. Device can be also used to convert Modbus RTU protocol to Modbus TCP/IP protocol. This enables connectivity to other SCADA systems by using Modbus TCP/IP protocol. Maximum quantity of connected RTU devices is 10 units.

By connecting device to internet connection, secure VPN connection is established between M-LINK device and Ounet SCADA solution. VPN connection is built up by using OUMAN Access solution, which is secure M2M connection, which is provided for all OUMAN devices using internet connection.

If local area network connection does not exist, device can be connected to internet by using the 4G-MOD1 Modem.

Internal WEB-server enables easy connectivity to OUMAN unit controllers. For example S203, C203, H23, EH-203 and EH-105 controllers can be configured by using ready made templates which can be selected from M-LINK WEB-server interface. Server can also provide point transfer between devices within same IP network and buffering of trend data. With OUFLEX TOOL server can be programmed to use Modbus description files to be used for 3rd party devices.

M-LINK can be connected to one OUMAN controller through C-serial RJ45 connector and this enables updating of applications for example to OUFLEX M BA unit.

Communication protocols:

- Modbus RTU
- · Modbus TCP / IP



M-LINK OMAO443	Interface converter with ACCESS-function	<mark>A1</mark>	683

Ouman 4G-internet product

WIRELESS 4G-COMMUNICATION

4G-MOD1 is a wireless connection to Access -devices or for their verification. You can buy the subscription from your preferred operator.

ADDITIONAL PRODUCTS

ANT2 0MB0009	Omnidirectional 3G-antena with 8 meter cable	C1	210
ANT-C-10M OMB0012	10 meter extension cable for GSM- and 3G-antenna	C1	54

Channel adapter cards and converters

MODBUS AND EH-485 CHANNEL ADAPTER CARDS

Modbus- and EH-485 cards are channel adapter cards with which controllers traffic route are made to be compatible with an Modbus or RS-485 field channel.



MODBUS-100 0MA0208	Modbus adapter card for EH-105 controller	A1	182
MODBUS-200	Modbus adapter card for EH-200 controller	A1	182

M-BUS/MODBUS converters

MBUS-MODBUS-2 OMB0509	M-Bus/Modbus converter (max. 2 devices)	C2	213
MBUS-MODBUS-8 OMB0510	M-Bus/Modbus converter (max. 8 devices)	C2	266
MBUS-MODBUS-80 OMB0511	M-Bus/Modbus converter (max. 80 devices)	C2	550

Casing solutions

LM1-HC 4G Remote monitoring solution for unit controllers (Ouman C203, S203 and EH-203)

Content:

- M-LINK interface converter pre programmed for Ounet remote control and monitoring, room compensation also included
- Space reservation for WL-Base gateway unit
- 4G modem
- · Casing package with power supply
- Ounet SCADA setup



NOTE!

- · WL-Base and wireless sensors are sold separately
- Ounet contract is not included
- 4G-L3 subscription isnot included

LM1-HC 4G	Remote monitoring solution for unit controllers	۸1	1/01
OMA0540	Remote mornioning solution for unit controllers	ΑI	1401

Temperature sensors and room units

TMO OUTDOOR SENSOR

Outdoor sensor measures the outside air temperature. The sensor color is white-gray, so the measuring difference caused by solar radiation is as small as possible. The sensor comes with a cable gland.



NTC10: For Ouman controllers

Pt1000: For Danfoss and Honeywell controllers

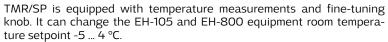
Ni1000LG: For Siemens controllers

NTC10 P+1000 Ni10001 G

			NICIO	Ptiooo	MIIOOOLG
TMO OMA0015	Outdoor sensor	A1	33	35	41

ROOM SENSORS

The room sensor can be used with Ouman air handling unit controller EH-105 as well as the EH-200 and EH-800 series heating controllers. Position the room sensor so that it measures the facility's average temperature.





TMR OMAO011	Room sensor	A1	48	55	67
TMR/SP OMAO310	Huonelämpötila-anturi kaukoasetuspotentiometrillä	A1	55		

TMS SURFACE SENSOR

The surface sensor is used to measure the temperature of the liquid flowing in the pipe. The sensor is installed on the surface of the pipe with a fastening strap. Suitable for pipe sizes DN 20...80.



			NICIO	Pt 1000	NIIUUULG
TMS OMA0312	Surface sensor	A1	27	-	-
TMS-C/NTC10 OMAO497	Surface sensor with connector, NTC10	A1	25	-	-
TMS-2M 0MA0016	Surface sensor, connection cable 2 m	A1	28	45	52
TMS-3M 0MA0318	Surface sensor, connection cable 3 m	A1	29	-	-
TMS-4M 0MA0321	Surface sensor, connection cable 4 m	A1	31	46	55

TMW-C CONNECTION CABLES

TMW-C KYTKENTÄ KAAPELI 2 M OMAO516	2m connection cable for temperature sensors with connector	A1	14
TMW-C KYTKENTÄ KAAPELI 3 M OMA0626	3m connection cable for temperature sensors with connector	A1	17

Temperature sensors

TMW WATER SENSOR

The water sensors installed on the water pipes are suitable for heating and domestic hot water control. Sensors are made of stainless steel (AISI 304), but the TMW-300 sensors thread nipple is made of brass. Sensors come with immersion tube of different lenghts as follows (Ø 4 mm). TMW-50, -100 and -210 are suitable for pressure class PN16 and TMW-300 for PN10.



NTC10: For Ouman controllers

Pt1000: For Danfoss and Honeywell controllers

Ni1000LG: For Siemens controllers

			NICIO	Pt 1000	NIIUUULG
TMW-50 0MA0012	Water sensor, 50 mm, thread R1/2"	A1	57	67	74
TMW-100 OMA0013	Water sensor, 100 mm, thread R1/2"	A1	58	75	75
TMW-210 0MA0340	Water sensor, 210 mm, thread R1/2"	A1	61	71	77
TMW-300 0MA0343	Water sensor, 300 mm (adjustable), thread R1/2"	A1	64	83	92



TMW-50-C/NTC10 OMAO499	Water sensor with connector, 50 mm, thread R1/2"	A1	46
TMW-100-C/NTC10 OMA0500	Water sensor with connector, 100 mm, thread R1/2"	A1	48
TMW-210-C/NTC10 OMA0501	Water sensor with connector, 210 mm, thread R1/2"	A1	50

TMW-ST WATER SENSOR WITH PROTECTIVE POCKET

The water sensors installed on the water pipes are suitable for heating and domestic hot water control (also with aggressive water). Immersion tubes are made of stainless steel (AISI 304) and the thread nipple is made of same material. Sensor's tube is a diameter of 4 mm and protection tube 5 mm. Sensors are suitable for pressure class PN16.



tion tube 5 mm. Sensors are suitable for pressure class PN16.			NTC10	Pt1000	Ni1000LG
TMW-81ST OMA0352	Water sensor and protection pocket 80 mm, thread R1/2"	A1	107	128	112
TMW-121ST OMA0330	Water sensor and protection pocket 120 mm, thread R1/2"	A1	88	108	112
TMW-201ST OMA0337	Water sensor and protection pocket 200 mm, thread R1/2"	A1	96	106	110

TMI ICE FROST SENSOR

Ice frost sensors are used to measure the air conditioning ice frost function and return water regulation temperature. The sensor is made of stainless steel (AISI 304). A sensor has 2 m long immersion pipe, which



nas a diameter of 4 mm.			NTC10	Pt1000	Ni1000LG
TMI 0MA0293	Ice frost sensor, R 1/4"	A1	58	76	80

TMD DUCT SENSOR

Duct sensor is used for air conditioning duct temperature measurements. Brassy protection tube has a diameter of 8 mm and a length of 250 mm.



		_		NICIO	Ptiooo	MIIOOOLG
TMD OMAQQ14	Duct sensor		A1	46	55	65

PTL-10 WATER PRESSURE SENSOR

- Operating voltage 15-24 VDC / 24 VAC (+-10%)
- Output 0-10V
- Thread G1/4, includes adapter G1/4-G1/2
- IP 65

	103		
PTL-10-V 0MB0470	Water pressure sensor	A2	188

Ouman wireless sensor system

The wireless Ouman sensor system enables quick and easy collection of precise room temperature data in a building without laborious laying of cables and drilling of walls. The sensor system comprises a gateway unit, wireless sensors in router mode that are connected to the mains, and battery-operated wireless sensors. A predefined description file makes it easy to connect the wireless sensors to a SCADA system. In the event of failure, a damaged sensor can be replaced without changing the template file. This makes the installation of the replacement sensor quicker and easier.

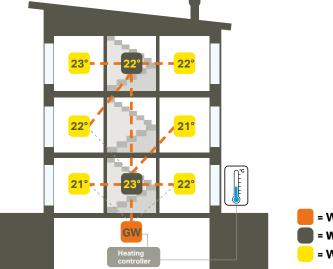
WL-BASE GATEWAY UNIT

- Linux based
- Access feature
- Built-in Web server to facilitate installation
- Separate installation mode with a short 10 s. measurement interval
- Measurement interval freely adjustable (1-240 min)
- · Ethernet, Modbus TCP/IP
- · RS-485, Modbus

WL-TEMP-RH 2.1 WIRELESS TEMPERATURE AND HUMIDITY SENSOR

- Built-in antenna
- 2 x AA batteries (does not include)
- In addition to serving as a measuring sensor, the same antenna also serves a router if con mains (5–12V DC, 20 mA)
- Measuring accuracy ±0.2 °C (the same as Ouman controllers)
- Operating temperature: 0–50 °C
- Thanks to advanced system circuit the covering range of the sensors is not impaired when the battery is low.
- 868 MHz Mesh technology
- Connector for outdoor temperature sensor (with a fixed cable connection to outside)

WL-BASE 2.1 0MA0489	Gateway unit	A1	437
WL-TEMP-RH 2.1 OMA0579	Wireless temperature and humidity sensor	A1	130
WL-SOCKET-ROUTER 2.1	Fixed mounting router in staircase (on top of the present electric socket)	A1	224
WL-TEMP-RH-WHIP 2.1 OMA0583	Wireless temperature and humidity sensor with 1.8m whip sensor	A1	239
WL-TEMP-RH-CO2 2.1 0MA0584	Wireless temperature and humidity sensor with CO2 measuring. Needs outer power source.	A1	324
WL-TEMP-RH-VOC 2.1 OMA0585	Wireless temperature and humidity sensor with VOC measuring. Needs outer power source.	A1	317
WL-TEMP-RH-PD OMA0587	Wireless temperature and humidity sensor with pressure difference measuring.	A1	281
WL-ROUTER POWER OMA0430	Power unit for temperature sensor 5 VDC (needed when operating as a router)	A1	24
WL-BASE-POWER OMA0448	Power unit for WL-Base, 24 VDC plug	C 1	35
WL-ANT OMB0473	Antenna for WL-Base, 4m cable, magnetic fixing	C 1	41
WL-BATTERY-AA-LIT OMB0472	Battery package for wireless temperature sensors. Includes 10 pcs. AA lithium		24



= WL-Base

= WL-temp (router)

= WL-temp

Energy meter and transmitters

DPT DIFFERENTIAL PRESSURE TRANSMITTER

The DPT is an electronic differential pressure transmitter used for measuring low pressures of air and non-aggressive gasses in order to monitor and control pressures in building automation, HVAC and clean room systems. Measuring range can be selected from



-100 Pa and 2500 Pa between. Transmitter has an automatic reset.

DPT 0MB0033	Differential pressure transmitter	A1	210
DPT/D OMB0035	Differential pressure transmitter with display	A1	243

PDI PRESSURE DIFFERENCE MANOMETER, IP 54

- Measuring range 0 600 Pa
- Operating temperature -40°C...+60°C

PDI OMB0298	Pressure difference manometer MM 200600	A2	119

PDS PRESSURE DIFFERENCE SWITCH, IP 54

- Different measuring ranges
- Connection difference 30 Pa

PDS-300

OMB0310 PDS-600

• Operating temperature -20°C...+60°C

. 9			
	A2	37	

PRESSURE TRANSMITTER FOR WATER



MLH+KYTKENTÄKAAPELI OMAO618	Pressure transmitter for water, O-10bar, O-10V, Thread G1/4	A1	164	

5-CDPT 5-CHANNEL DIFFERENTIAL PRESSURE TRANSMITTER

The 5-CDPT is a differential pressure transmitter with 5 measurement channel and communicates via the Modbus RTU bus.

Pressure difference switch, 40 - 600 Pa, PS600

Pressure difference switch, 40 - 600 Pa, PS600



5-CDPT	5-channel differential pressure transmitter	Δ1	594	
OMA0635	5 charmer differential pressure transmitter	Α.	004	

OTHER TRANSMITTERS

Transmitters input voltage 24 AC/DC, measuring message 0-10 VDC.

HDH OMB0055	CO2 and temperature sensor in room	A2	485
HDH-N OMB0060	CO2 and temperature sensor in room with display	A2	573
HDK OMB0061	CO2 and temperature sensor in duct	A2	650
HDK-N OMB0062	CO2 and temperature sensor in duct with display	A2	739
IVL 10 OMB0082	Air flow transmitter 0-10 m/s	A2	196
KLH 100 OMB0113	Room moisture and temperature transmitter	A2	204
KLH 100-N OMB0114	Room moisture and temperature transmitter with display	A2	274
VPL 16 OMB0428	Pressure transmitter for water network, below 16 bar	A2	294
VPL 16-N OMB0429	Pressure transmitter for water network with display, below 16 bar	A2	352
LUX 34 OMB0132	Lux sensor for outrdoot use	A2	294
TUNA 20 OMB0411	Wind speed (020 m/s) and temperature transmitter	A2	372
KLK 100 OMB0115	Duct moisture and temperature transmitter	A2	294
KLK 100-N OMB0116	Duct moisture and temperature transmitter with display	A2	352

2-way valves for district heating

VD 2-WAY VALVES FOR DISTRICT HEATING

These valves are designed especially for flow control in hydraulic systems with high temperatures and pressures, such as district heating systems. Can be used in combination with actuators M31C150 (heating) and M41A15 (domestic hot water)

Note. Connections set must be ordered separately. Is not included in the price.

CONNECTION SETS:

*

VD215-0.25 OMA0386	DN 15	Kv 0.25	External thread R 3/4", flush surface with seal	L15UK-1/2" or L15HI	A3	204
VD215-0.4 OMA0387	DN 15	Kv 0.4	External thread R ¾", flush surface with seal	L15UK-1/2" or L15HI	A3	204
VD215-0.63 0MA0388	DN 15	Kv 0.63	External thread R ¾", flush surface with seal	L15UK-1/2" or L15HI	A3	204
VD215-1.0 OMA0389	DN 15	Kv 1.0	External thread R ¾", flush surface with seal	L15UK-1/2" or L15HI	A3	204
VD215-1.6 OMA0390	DN 15	Kv 1.6	External thread R ¾", flush surface with seal	L15UK-1/2" or L15HI	A3	204
VD220-2.5 OMA0391	DN 20	Kv 2.5	External thread R 1", flush surface with seal	L20UK-3/4", L20SK-1/2", L20HI	A3	285
VD220-4.0 OMA0392	DN 20	Kv 4.0	External thread R 1", flush surface with seal	L20UK-3/4", L20SK-1/2", L20HI	A3	285
VD225-6.3 OMA0393	DN 25	Kv 6.3	External thread R 11/4", flush surface with seal	L25UK-1", L25SK, L25HI	A3	375
VD232-10 OMA0394	DN 32	Kv 10	External thread R 11/2", flush surface with seal	L25SK-1" or L32HI	A3	508

V5016A... 2-WAY VALVES FOR DISTRICT HEATING

Cast iron, T max 150 °C, stroke length 20 mm, PN 16,

Pressure balanced district heating valve.

Can be used in combination with actuators: ML6420..., ML6425..., ML7420..., ML7425...



V5016A1010 HON258	DN 15	Kv 0,4	Flanged (length 130 mm)	A3	816
V5016A1028 HON259	DN 15	Kv 0,63	Flanged (length 130 mm)	A3	686
V5016A1036 HON260	DN 15	Kv 1,0	Flanged (length 130 mm)	АЗ	840
V5016A1044 HON261	DN 15	Kv 1,6	Flanged (length 130 mm)	A3	840
V5016A1051 HON262	DN 15	Kv 2,5	Flanged (length 130 mm)	АЗ	763
V5016A1069 HON263	DN 15	Kv 4,0	Flanged (length 130 mm)	АЗ	763
V5016A1077 HON264	DN 20	Kv 6,3	Flanged (length 150 mm)	A3	803
V5016A1085 HON265	DN 25	Kv 10	Flanged (length 160 mm)	A3	998
V5016A1093 HON266	DN 32	Kv 16	Flanged (length 180 mm)	АЗ	1158
V5016A1101 HON267	DN 40	Kv 25	Flanged (length 200 mm)	АЗ	1353
V5016A1119 HON268	DN 50	Kv 40	Flanged (length 230 mm)	A3	1713
V5016A1127 HON269	DN 65	Kv 63	Flanged (length 290 mm)	A3	2265
V5016A1135 HON270	DN 80	Kv 100	Flanged (length 310 mm)	A3	2734
V5016A1143 HONO76	DN 100	Kv 160	Flanged (length 350 mm)	A3	4225
V5016A1150 HONO77	DN 125	Kv 250	Flanged (length 400 mm)	АЗ	6252
V5016A1168 HONO78	DN 150	Kv 360	Flanged (length 480 mm)	A3	6820

2-way valves for district heating

V5025A... 2-WAY VALVES FOR DISTRICT HEATING

Cast iron, Pressure balanced district heating valve., PN25, T max 200 $^{\circ}$ C

Suitable actuators: ML6420..., ML6421..., ML6425..., ML7420..., ML7421..., ML7425



V5025A1027	DN 15	Kv 0.63	Flanged (L=130 mm)	Stroke 20 mm	A3	1174
V5025A1035	DN 15	Kv 1.0	Flanged (L=130 mm)	Stroke 20 mm	АЗ	1174
V5025A1050	DN 15	Kv 2.5	Flanged (L=130 mm)	Stroke 20 mm	A3	1174
V5025A1068	DN 15	Kv 4.0	Flanged (L=130 mm)	Stroke 20 mm	A3	1174
V5025A1076	DN 20	Kv 6.3	Flanged (L=150 mm)	Stroke 20 mm	АЗ	1193
V5025A1084	DN 25	Kv 10	Flanged (L=160 mm)	Stroke 20 mm	A3	1212
V5025A1092 HONO87	DN 32	Kv 16	Flanged (L=180 mm)	Stroke 20 mm	АЗ	1326
V5025A1100	DN 40	Kv 25	Flanged (L=200 mm)	Stroke 20 mm	A3	1667
V5025A1118	DN 50	Kv 40	Flanged (L=230 mm)	Stroke 20 mm	A3	1932
V5025A1126 HONO91	DN 65	Kv 63	Flanged (L=290 mm)	Stroke 20 mm	АЗ	2141
V5025A1134	DN 80	Kv 100	Flanged (L=310 mm)	Stroke 20 mm	АЗ	3126
V5025A1142	DN 100	Kv 160	Flanged (L=350 mm)	Stroke 38 mm	АЗ	4642
V5025A1159	DN 125	Kv 250	Flanged (L=400 mm)	Stroke 38 mm	АЗ	8184

V5049A... 2-WAY VALVES FOR DISTRICT HEATING

Cast iron, Pressure balanced district heating valve.,, PN40, T max 220 °C

 $Suitable\ actuators:\ ML6420...,\ ML6425...,\ ML7420...,\ ML7421...,\ ML7425$



							,
!	V5049A2043 HON110	DN 15	Kv 0.63	Flanged (L=130 mm)	Stroke 20 mm	АЗ	2842
!	V5049A1433 HONO97	DN 15	Kv 1.6	Flanged (L=130 mm)	Stroke 20 mm	АЗ	2368
!	V5049A1441 HON098	DN 15	Kv 2.5	Flanged (L=130 mm)	Stroke 20 mm	АЗ	2368
!	V5049A1458 HONO99	DN 15	Kv 4.0	Flanged (L=130 mm)	Stroke 20 mm	АЗ	2368
!	V5049A1508 HON100	DN 20	Kv 6.3	Flanged (L=150 mm)	Stroke 20 mm	АЗ	2463
!	V5049A1565 HON101	DN 25	Kv 10	Flanged (L=160 mm)	Stroke 20 mm	АЗ	2469
!	V5049A1573 HON102	DN 32	Kv 16	Flanged (L=180 mm)	Stroke 20 mm	АЗ	2804
!	V5049A1581 HON103	DN 40	Kv 25	Flanged (L=200 mm)	Stroke 20 mm	АЗ	2993
!	V5049A1599 HON104	DN 50	Kv 40	Flanged (L=230 mm)	Stroke 20 mm	АЗ	5001
!	V5049A1607 HON105	DN 65	Kv 63	Flanged (L=290 mm)	Stroke 20 mm	АЗ	6252

2-way valves for heating and ventilation

VSMF-2... 2-WAY VALVE

Red metal, T max 120 °C, stroke 6,5 mm, PN16

Applications: Heating and ventilation Suitable for motors: M31C150 ja M41A15

 $\textbf{Note}. \ \ \text{Connections sets must be ordered separately.} \ \ \text{Do not include in the price}.$

CONNECTION SETS:



CONNECTION SETS:						
SMF-215-0.25 DN 15 Kv 0.25 Externa		External thread R ½"	L15UK3/8"		A3	57
DN 15	Kv 0.4	External thread R ½"	L15UK3/8"		A3	57
DN 15	Kv 0.63	External thread R ½"	L15UK3/8"		A3	57
DN 15	Kv 1.0	External thread R ½"	L15UK3/8"		A3	57
DN 15	Kv 1.6	External thread R ½"	L15UK3/8"		A3	57
DN 15	Kv 2.5	External thread R ½"	L15UK3/8"		A3	57
DN 20	Kv 2.5	External thread R ¾"	L15UK-1/2", L15HI		A3	89
DN 20	Kv 4.0	External thread R ¾"	L15UK-1/2", L15HI		АЗ	89
DN 25	Kv 6.3	External thread R 1 1/4"	L25UK-1", L25SK-3/4", L25HI	Pressure balanced	A3	227
DN 25	Kv 8.0	External thread R 1 1/4"	L25UK-1", L25SK-3/4", L25HI	Pressure balanced	A3	227
	DN 15 DN 15 DN 15 DN 15 DN 15 DN 20 DN 20 DN 25	DN 15 KV 0.4 DN 15 KV 0.63 DN 15 KV 1.0 DN 15 KV 1.6 DN 15 KV 2.5 DN 20 KV 2.5 DN 20 KV 4.0 DN 25 KV 6.3	DN 15 Kv 0.4 External thread R ½" DN 15 Kv 0.63 External thread R ½" DN 15 Kv 1.0 External thread R ½" DN 15 Kv 1.6 External thread R ½" DN 15 Kv 2.5 External thread R ½" DN 20 Kv 2.5 External thread R ¾" DN 20 Kv 4.0 External thread R ¾" DN 25 Kv 6.3 External thread R 1¼"	DN 15 Kv 0.25 External thread R ½" L15UK3/8" DN 15 Kv 0.4 External thread R ½" L15UK3/8" DN 15 Kv 0.63 External thread R ½" L15UK3/8" DN 15 Kv 1.0 External thread R ½" L15UK3/8" DN 15 Kv 1.6 External thread R ½" L15UK3/8" DN 15 Kv 2.5 External thread R ½" L15UK3/8" DN 20 Kv 2.5 External thread R ¾" L15UK-1/2", L15HI DN 20 Kv 4.0 External thread R ¾" L15UK-1/2", L15HI DN 25 Kv 6.3 External thread R 1 ¼" L25UK-1", L25SK-3/4", L25HI	DN 15 Kv 0.25 External thread R ½" L15UK3/8" DN 15 Kv 0.4 External thread R ½" L15UK3/8" DN 15 Kv 0.63 External thread R ½" L15UK3/8" DN 15 Kv 1.0 External thread R ½" L15UK3/8" DN 15 Kv 1.6 External thread R ½" L15UK3/8" DN 15 Kv 2.5 External thread R ½" L15UK3/8" DN 20 Kv 2.5 External thread R ¾" L15UK-1/2", L15HI DN 20 Kv 4.0 External thread R ¾" L15UK-1/2", L15HI DN 25 Kv 6.3 External thread R 1 ¼" L25UK-1", L25SK-3/4", L25HI Pressure balanced	DN 15 Kv 0.25 External thread R ½" L15UK3/8" A3 DN 15 Kv 0.4 External thread R ½" L15UK3/8" A3 DN 15 Kv 0.63 External thread R ½" L15UK3/8" A3 DN 15 Kv 1.0 External thread R ½" L15UK3/8" A3 DN 15 Kv 1.6 External thread R ½" L15UK3/8" A3 DN 15 Kv 2.5 External thread R ½" L15UK3/8" A3 DN 20 Kv 2.5 External thread R ¾" L15UK-1/2", L15HI A3 DN 20 Kv 4.0 External thread R ¾" L15UK-1/2", L15HI A3 DN 25 Kv 6.3 External thread R 1 ¼" L25UK-1", L25SK-3/4", L25HI Pressure balanced A3

V5822A... 2-WAY VALVE

Brass, PN16, T max 120 $^{\circ}$ C, actuators HW 6.5 or 2.5 mm stroke



				CONNECTION SETS:		*)
V5822A1006 HON130	DN 15	Kv 0.16	external thread R1/2" , stroke 6,5 mm	ACN-15C/S/T	АЗ	123
V5822A1014 HON131	DN 15	Kv 0.25	external thread R1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	123
V5822A1022 HON132	DN 15	Kv 0.40	external thread R1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	123
V5822A1030 HON133	DN 15	Kv 0.63	external thread R1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	115
V5822A1048 HON134	DN 15	Kv 1.0	external thread R1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	115
V5822A1055 HON135	DN 15	Kv 1.6	external thread R1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	115
V5822A1063 HON136	DN 20	Kv 2.5	external thread R3/4", stroke 6,5 mm	ACN-20C/S/T	АЗ	145
V5822A1071 HON137	DN 20	Kv 4.0	external thread R3/4", stroke 6,5 mm	ACN-20C/S/T	АЗ	145
V5822A4000 HON138	DN 15	Kv 1.6	external thread R1/2" , stroke 2,5 mm, On/Off -control	ACN-15C/S/T	АЗ	93
V5822A4018 HON139	DN 20	Kv 2.5	external thread R3/4", stroke 2,5 mm, On/Off -control	ACN-20C/S/T	АЗ	115

[!] no stock product

^{*)} We reserve the right to change the prices according to Honeywell.

2-way valves for heating and ventilation

V5832A... 2-WAY VALVE

Brass, PN16, T max 120 °C, stroke 6,5 mm



*)

CONNECTION SETS:

	V5832A1004 HON162	DN 15	Kv 0.16	external thread R1/2"	L15UK-3/8"	A3	88
ı	V5832A1012 HON163	DN 15	Kv 0.25	external thread R1/2"	L15UK-3/8"	A3	88
	V5832A1020	DN 15	Kv 0.40	external thread R1/2"	L15UK-3/8"	A3	88
	V5832A1038	DN 15	Kv 0.63	external thread R1/2"	L15UK-3/8"	A3	88
1	V5832A1046	DN 15	Kv 1.0	external thread R1/2"	L15UK-3/8"	A3	88
ı	V5832A1053 HON167	DN 15	Kv 1.6	external thread R1/2"	L15UK-3/8"	АЗ	88
ı	V5832A1061 HON168	DN 20	Kv 2.5	external thread R3/4"	L15UK-1/2", L15HI	АЗ	121
	V5832A1079	DN 20	Kv 4.0	external thread R3/4"	L15UK-1/2", L15HI	АЗ	121
ı	V5832A4008 HON170	DN 15	Kv 1.6	external thread R1/2" On/Off -control	L15UK-3/8"	АЗ	74
ı	V5832A4016 HON171	DN 20	Kv 2.5	external thread R3/4", On/Off -control	L15UK-1/2", L15HI	АЗ	99

V5328A... 2-WAY VALVE, FLANGED

Cast iron, PN16 For heating and ventilation



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!	V5328A1146 HON124	DN 15	Kv 0,4	Flanged (L=130mm)	Stroke 20 mm	Tmax 170°C	A3	784
1	V5328A1153 HON125	DN 15	Kv 0,63	Flanged (L=130mm)	Stroke 20 mm	Tmax 170°C	АЗ	784
!	V5328A1005 HON114	DN 15	Kv 1,0	Flanged (L=130mm)	Stroke 20 mm	Tmax 170°C	АЗ	713
!	V5328A1013 HON115	DN 15	Kv 1,6	Flanged (L=130mm)	Stroke 20 mm	Tmax 170°C	АЗ	784
!	V5328A1021 HON116	DN 15	Kv 2,5	Flanged (L=130mm)	Stroke 20 mm	Tmax 170°C	A3	713
!	V5328A1039 HON117	DN 15	Kv 4,0	Flanged (L=130mm)	Stroke 20 mm	Tmax 170°C	A3	713
!	V5328A1047 HON118	DN 20	Kv 4,0	Flanged (L=150mm)	Stroke 20 mm	Tmax 170°C	A3	806
!	V5328A1054 HON119	DN 20	Kv 6,3	Flanged (L=150mm)	Stroke 20 mm	Tmax 170°C	A3	682
!	V5328A1062 HON120	DN 25	Kv 10	Flanged (L=160mm)	Stroke 20 mm	Tmax 170°C	A3	709
!	V5328A1070 HON121	DN 32	Kv 16	Flanged (L=180mm)	Stroke 20 mm	Tmax 170°C	АЗ	872
!	V5328A1088 HON122	DN 40	Kv 25	Flanged (L=200mm)	Stroke 20 mm	Tmax 170°C	A3	1091
!	V5328A1096 HON271	DN 50	Kv 40	Flanged (L=230mm)	Stroke 20 mm	Tmax 170°C	A3	1273
!	V5328A1104 HON272	DN 65	Kv 63	Flanged (L=290mm)	Stroke 20 mm	Tmax 170°C	A3	1582
!	V5328A1112 HON273	DN 80	Kv 100	Flanged (L=310mm)	Stroke 20 mm	Tmax 170°C	A3	2000
!	V5328A1195 HON126	DN 100	Kv 160	Flanged (L=350mm)	Stroke 38 mm	Tmax 200°C	АЗ	2818
!	V5328A1203 HON127	DN 125	Kv 250	Flanged (L=400mm)	Stroke 38 mm	Tmax 200°C	A3	5176
!	V5328A1211 HON128	DN 150	Kv 360	Flanged (L=480mm)	Stroke 38 mm	Tmax 200°C	АЗ	5703

VBG2... 2-WAY CONTROL BALL VALVE

Brass, PN25, T max 120 °C, Angle of rotation 90°, Suitable actuators MNV... Valve serie available on request. See datasheet from our website.



2-way valves for heating and ventilation

V5832B... 2-WAY VALVE

For the control of hot or chilled water for fan coil units, small reheaters/recoolers in electric/electronic temperature control systems. Can be used in combination with actuators M31C150 and M41A15.

Note. Connections sets must be ordered separately. Do not include in the price.



CONNECTION SETS:

V5832B2075 H0N286	DN 25	Kv 4.0	External thread R 1½″, flush surface with seal	L25SK-1"	АЗ	378
V5832B2083 HON287	DN 25	Kv 6.3	External thread R 1½″, flush surface with seal	L25SK-1"	АЗ	382
V5832B2091 HON288	DN 25	Kv 10	External thread R 1½″, flush surface with seal	L25SK-1"	АЗ	315
V5832B2109 HON289	DN 32	Kv 16	External thread R 2″, flush surface with seal	L32SK-1 1/4"	АЗ	349
V5832B2117 HON290	DN 40	Kv 25	External thread R 21/4", flush surface with seal	L40SK-1 1/2"	АЗ	498

V5011R 2-WAY VALVE

For heating, ventilation and domestic hot water. Can be used in combination with actuators ML6420..., ML6425..., ML7420... and ML7425...



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					•
V5011R1000 HON241	DN 15	Kv 0.63	Internal thread, R 1/2"	A3	370
V5011R1018 H0N242	DN 15	Kv 1.0	Internal thread, R 1/2"	A3	370
V5011R1026 HON243	DN 15	Kv 1,6	Internal thread, R 1/2"	АЗ	305
V5011R1034 HON244	DN 15	Kv 2,5	Internal thread, R 1/2"	A3	305
V5011R1042 H0N245	DN 15	Kv 4	Internal thread, R 1/2"	A3	376
V5011R1059 HON246	DN 20	Kv 6,3	Internal thread, R 3/4"	АЗ	369
V5011R1067 HON247	DN 25	Kv 10	Internal thread, R 1"	АЗ	436
V5011R1075 HON248	DN 32	Kv 16	Internal thread, R 1 1/4"	АЗ	484
V5011R1083 HON249	DN 40	Kv 25	Internal thread, R 1 1/2"	АЗ	570
V5011R1091 HON250	DN 50	Kv 40	Internal thread, R 2"	АЗ	686

R20... 2-WAY BALL VALVES

For ventilation, heating systems and for the control of hot or chilled water for fan coil units. Can be used in combination with actuators HRYD24-SR, HRYD24-3 and HRC24-3.



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R2015-1-S1 0MB0325	DN 15	Kv 1,0	Internal thread 1/2", replace the valve R210		90
R2015-1P6-S1 OMB0324	DN 15	Kv 1,6	Internal thread 1/2", replace the valve R211	A2	90
R2015-2P5-S1 OMB0326	DN 15	Kv 2,5	Internal thread 1/2", replace the valve R212	A2	90
R2020-4-S2 OMB0328	DN 20	Kv 4,0	Internal thread 3/4", replace the valve R217	A2	103
R2020-6P3-S2 OMB0329	DN 20	Kv 6,3	Internal thread 3/4", replace the valve R218	A2	103
R2020-8P6-S2 OMB0330	DN 20	Kv 8,6	Internal thread 3/4", replace the valve R219	A2	103
R2025-10-S2 OMB0331	DN 25	Kv 10	Internal thread 1", replace the valve R223	A2	126
R2025-16-S2 0MB0332	DN 25	Kv 16	Internal thread 1", replace the valve R224	A2	126

! no stock product

VSMF-3... 3-WAY VALVE

Red metal, T max 120 °C, stroke length 6,5 mm PN 16

Applications: For heating and ventilation

Suitable for actuators: M31C150, M31A150 and M41A15

Note. Connections sets must be ordered separately. Do not include in the price.



	Note . Connections sets must be ordered separately. Do not include in the price.				CONNECTION SETS:		*)
!	VSMF-315-0.25 DN 15 Kv 0.25 External thread R 1/2", flush surface wit		External thread R 1/2", flush surface with seal	L15UK-3/8"	A3	77	
	VSMF-315-0.4 HON304	DN 15	Kv 0,4	External thread R 1/2", flush surface with seal	L15UK-3/8"	A3	102
	VSMF-315-0.63 H0N305	DN 15	Kv 0,63	External thread R 1/2", flush surface with seal	L15UK-3/8"	A3	102
	VSMF-315-1.0 HON306	DN 15	Kv 1,0	External thread R 1/2", flush surface with seal	L15UK-3/8"	A3	102
	VSMF-315-1.6 HON307	DN 15	Kv 1,6	External thread R 1/2", flush surface with seal	L15UK-3/8"	A3	102
!	VSMF-315-2.5 HON224	DN 15	Kv 2.5	External thread R 1/2", flush surface with seal	L15UK-3/8"	A3	84
	VSMF-320-2.5 HON308	DN 20	Kv 2.5	External thread R 3/4", flush surface with seal	L15UK-1/2", L15HI	A3	93
	VSMF-320-4.0 HON309	DN 20	Kv 4	External thread R 3/4", flush surface with seal	L15UK-1/2", L15HI	A3	93
	VSMF-325-6.3P HON310	DN 25	Kv 6.3	External thread R 1 1/4", flush surface with seal	L25UK-1", L25SK-3/4", L25HI	АЗ	250
	VSMF-325-8.0P HON311	DN 25	Kv 8.0	External thread R 1 1/4", flush surface with seal	L25UK-1", L25SK-3/4", L25HI	АЗ	250

V5833A... 3-WAY VALVE

Red metal, PN16

Applications: For heating, ventilation and domestic hot water

Suitable for motors: M31C150 and M41A15

Note. Connections sets must be ordered separately. Do not include in the price.



CONNECTION SETS:

V5833A1003 HON172	DN 15	Kv A-AB 0.25 B-AB 0.16	External thread R1/2", Tmax 120°C, stroke 6,5 mm	L15UK-3/8"	АЗ	118
V5833A1011 HON173	DN 15	Kv A-AB 0.4 B-AB 0.25	External thread R1/2", Tmax 120°C, stroke 6,5 mm	L15UK-3/8"	A3	118
V5833A1029 HON174	DN 15	Kv A-AB 0.63 B-AB 0.4	External thread R1/2", Tmax 120°C, stroke 6,5 mm	L15UK-3/8"	АЗ	118
V5833A1037 HON175	DN 15	Kv A-AB 1.0 B-AB 0.63	External thread R1/2" , Tmax 120°C, stroke 6,5 mm	L15UK-3/8"	АЗ	118
V5833A1045 HON176	DN 15	Kv A-AB 1.6 B-AB 1.0	External thread R1/2", Tmax 120°C, stroke 6,5 mm	L15UK-3/8"	A3	118
V5833A4007	DN 15	Kv A-AB 1.6 B-AB 1.6	External thread R1/2" , Tmax 120°C, stroke 2,5 mm, On/Off -control	L15UK-3/8"	A3	113
V5833A3009	DN 20	Kv A-AB 2.5 B-AB 2.5	External thread R3/4", Tmax 120°C, stroke 6,5 mm	L15UK-1/2", L15HI	A3	185
V5833A4015 HON181	DN 20	Kv A-AB 2.5 B-AB 2.5	External thread R3/4", Tmax 120°C, stroke 2,5 mm, On/Off -control	L15UK-1/2", L15HI	АЗ	113
V5833A3017 HON179	DN 20	Kv A-AB 4.0 B-AB 4.0	External thread R3/4", Tmax 120°C, stroke 6,5 mm	L15UK-1/2", L15HI	АЗ	187
V5833A2076 HON177	DN 25	Kv 4.0	External thread R1 1/2", Tmax 130°C, stroke 6,5 mm, Pressure balanced	L25SK-1", L32HI	АЗ	300
V5833A2084 HON291	DN 25	Kv 6.3	External thread R1 1/2", Tmax 130°C, stroke 6,5 mm, Pressure balanced	25SK-1", L32HI	АЗ	322
V5833A2092 HON292	DN 25	Kv 10	External thread R1 1/2", Tmax 130°C, stroke 6,5 mm, Pressure balanced	25SK-1", L32HI	АЗ	322
V5833A2100 HON293	DN 32	Kv 16	External thread R2", Tmax 130°C, stroke 6,5 mm, Pressure balanced	L32SK-1 1/4"	АЗ	342
V5833A2118 HON294	DN 40	Kv 25	External thread R2 1/4", Tmax 130°C, stroke 6,5 mm, Pressure balanced	L40UK-1 1/2", L40SK-1 1/2"	АЗ	456
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[!] no stock product

^{*)} We reserve the right to change the prices according to Honeywell.

V5013R... 3-WAY VALVE

Red metal, T max 170 °C, stroke length 20 mm, PN 16 Applications: For heating, domestic hot water and ventilation Suitable for actuators: ML6420... , ML6425..., ML7420... and ML7425...



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V5013R1032 H0N251	DN 15	Kv 2.5	Internal thread, R 1/2"	A3	286
V5013R1040 H0N252	DN 15	Kv 4	Internal thread, R 1/2"	АЗ	286
V5013R1057 H0N253	DN 20	Kv 6.3	Internal thread, R 3/4"	A3	315
V5013R1065 HON254	DN 25	Kv 10	Internal thread, R 1"	A3	316
V5013R1073 H0N255	DN 32	Kv 16	Internal thread, R 1 1/4"	АЗ	379
V5013R1081 H0N256	DN 40	Kv 25	Internal thread, R 1 1/2"	A3	462
V5013R1099 HON257	DN 50	Kv 40	Internal thread, R 2"	АЗ	582

V5013E... 3-WAY VALVE

Red metal, PN16, T max 170 °C, stroke length 20 mm

Note. Connections sets must be ordered separately. Do not include in the price.

Suitable for actuators: ML6420..., ML6425..., ML7420..., ML7425...

CONNECTION SETS:

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!	V5013E1063 HON069	DN 15	Kv 2.5	External thread, R 1/2"	L15UK-3/8"	A3	397
Ī	V5013E1071 HONO70	DN 15	Kv 4	External thread, R 1/2"	L15UK-3/8"	A3	397
Ī	V5013E1089 HONO71	DN 20	Kv 6.3	External thread,, R 3/4"	L15UK-1/2", L15HI	A3	421
Ī	V5013E1097 H0N072	DN 25	Kv 10	External thread, R 1"	L20UK-3/4", L20SK-1/2", L20HI	A3	440
Ī	V5013E1105 HON073	DN 32	Kv 16	External thread,, R 1 1/4"	L25UK-1", L25SK-3/4", L25HI	A3	523
!	V5013E1113 HON074	DN 40	Kv 25	External thread,, R 1 1/2"	L25SK-1", L32HI	A3	604
!	V5013E1121 HONO75	DN 50	Kv 40	External thread,, R 2"	L32SK-1 1/4"	A3	780

V5329... 3-WAY VALVE

Cast iron, T max 170 $^{\circ}$ C, stroke length 20 mm, PN 16 Applications: For heating, domestic hot water and ventilation Suitable for actuators: ML6420..., ML6425..., ML7420... and ML7425...



V5329A1004 H0N312	DN 15	Kv 2.5	Flanged	A3	872
V5329A1012 HON129	DN 15	Kv 4.0	Flanged	A3	872
V5329A1020 H0N313	DN 20	Kv 6.3	Flanged	АЗ	891
V5329A1038 HON274	DN 25	Kv 10	Flanged	АЗ	909
V5329A1046 HON275	DN 32	Kv 16	Flanged	АЗ	973
V5329A1053 H0N276	DN 40	Kv 25	Flanged	АЗ	931
V5329A1061 HON277	DN 50	Kv 40	Flanged	АЗ	1118
V5329A1079 HON278	DN 65	Kv 63	Flanged	АЗ	1435
V5329A1087 HON279	DN 80	Kv 100	Flanged	A3	2061
	HON312 V5329A1012 HON129 V5329A1020 HON313 V5329A1038 HON274 V5329A1046 HON275 V5329A1053 HON276 V5329A1061 HON277 V5329A1079 HON278 V5329A1087	HON312 V5329A1012 HON129 V5329A1020 HON313 V5329A1038 HON274 DN 25 V5329A1046 HON275 V5329A1053 HON276 DN 40 V5329A1061 HON277 V5329A1079 HON278 DN 65	N 15 KV 2.5	V5329A1020	HON312 DN 15 KV 2.5 Flanged A3 V5329A1012 HON129 DN 15 KV 4.0 Flanged A3 V5329A1020 HON313 DN 20 Kv 6.3 Flanged A3 V5329A1038 HON274 DN 25 Kv 10 Flanged A3 V5329A1046 HON275 DN 32 Kv 16 Flanged A3 V5329A1053 HON276 DN 40 Kv 25 Flanged A3 V5329A1061 HON277 DN 50 Kv 40 Flanged A3 V5329A1079 HON278 DN 65 Kv 63 Flanged A3 V5329A1087 DN 80 Kv 100 Flanged A3

V5823A... 3-WAY VALVE

Brass, PN16, T max 120 °C, HW-actuators with stroke length 6.5mm or 2.5 mm Applications: heating and ventilation



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CONNECTION SETS:

V5823A2003 HON140	DN 15	Kv 0.25	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	A3	155
V5823A2011 HON141	DN 15	Kv 0.40	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	A3	155
V5823A2029 HON142	DN 15	Kv 0.63	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	A3	155
V5823A2037 HON143	DN 15	Kv 1.0	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	136
V5823A2045 HON144	DN 15	Kv 1.6	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	A3	136
V5823A2052 HON145	DN 20	Kv 2.5	External thread, R 3/4", stroke 6,5 mm	ACN-20C/S/T	A3	178
V5823A2060 HON146	DN 20	Kv 4.0	External thread, R 3/4", stroke 6,5 mm	ACN-20C/S/T	A3	178
V5823A2151 HON147	DN 20	Kv 2.5	External thread, R 3/4", stroke 6,5 mm, sp 240 kPa/ -kPa	ACN-20C/S/T	A3	178
V5823A2169 HON148	DN 20	Kv 4.0	External thread, R 3/4", stroke 6,5 mm, sp 240 kPa/ -kPa	ACN-20C/S/T	АЗ	178
V5823A4009 HON149	DN 15	Kv 1.6	External thread, R 1/2", stroke 2,5 mm, On/Off -control	ACN-15C/S/T	АЗ	123
V5823A4017 HON150	DN 20	Kv 2.5	External thread, R 3/4", stroke 2,5 mm, On/Off -control	ACN-20C/S/T	A3	123

V5823C... 3-WAY VALVE

Brass, PN16, T max 120 °C, three-way with bypass HW-actuators with stroke length 6.5mm or 2.5 mm Applications: heating and ventilation



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CONNECTION SETS:

V5823C2009 HON151	DN 15	Kv A-AB 0.25 B-AB 0.16	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	177
V5823C2017 HON152	DN 15	Kv A-AB 0.4 B-AB 0.25	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	162
V5823C2025 HON153	DN 15	Kv A-AB 0.63 B-AB 0.4	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	151
V5823C2033 HON154	DN 15	Kv A-AB 1.0 B-AB 0.63	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	149
V5823C2041 HON155	DN 15	Kv A-AB 1.6 B-AB 1.0	External thread, R 1/2", stroke 6,5 mm	ACN-15C/S/T	АЗ	147
V5823C2058 HON156	DN 20	Kv A-AB 2.5 B-AB 1.6	External thread, R 3/4", stroke 6,5 mm	ACN-20C/S/T	A3	240
V5823C2066 HON157	DN 20	Kv A-AB 4.0 B-AB 2.5	External thread, R 3/4", stroke 6,5 mm	ACN-20C/S/T	АЗ	240
V5823C2157 HON158	DN 20	Kv A-AB 2.5 B-AB 1.6	External thread, R 3/4", stroke 6,5 mm, sp 240 kPa	ACN-20C/S/T	A3	225
V5823C2165 HON159	DN 20	Kv A-AB 4.0 B-AB 2.5	External thread, R 3/4", stroke 6,5 mm, sp 240 kPa	ACN-20C/S/T	A3	240
V5823C4005 HON160	DN 15	Kv 1.6	External thread, R 1/2", stroke 2,5 mm	ACN-15C/S/T	A3	123
V5823C4013 HON161	DN 20	Kv 2.5	External thread, R 3/4", stroke 2,5 mm	ACN-20C/S/T	A3	123

V5050A... 3-WAY VALVE

Cast iron, PN16, Tmax 220 °C, stroke 38 mm Applications: heating and ventilation Actuators 38 mm ML6421... or ML7421...



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!	V5050A1090 HON111	DN 100	Kv 160	Flanged	A3	3228
!	V5050A1108 HON112	DN 125	Kv 250	Flanged	АЗ	4581
!	V5050A1116 HON113	DN 150	Kv 360	Flanged	АЗ	6094

R30... 3-WAY BALL VALVE

Nickel-plated brass, T max 100 ° C, PN 16 Applications: For heating and ventilation



Suitable for motors: EH-800 models + SOV BELIMO, HRC24-3, HRYD24-SR, HRYD24-3

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R3015-P63-S1 OMB0340	DN 15	Kv 0.63	Internal threaded connect, thread ½", replace the valve R309	A2	158
R3015-1-S1 0MB0338	DN 15	Kv 1.0	Internal threaded connect, thread ½", replace the valve R310	A2	158
R3015-1P6-S1 0MB0337	DN 15	Kv 1.6	Internal threaded connect, thread ½", replace the valve R311	A2	158
R3015-2P5-S1 OMB0339	DN 15	Kv 2.5	Internal threaded connect, thread ½", replace the valve R312	A2	158
R3020-4-S2 OMB0341	DN 20	Kv 4.0	Internal threaded connect, thread ¾", replace the valve R317	A2	176
R3020-6P3-S2 0MB0342	DN 20	Kv 6.3	Internal threaded connect, thread ¾", replace the valve R318	A2	176
R3025-10-S2 0MB0343	DN 25	Kv 10	Internal threaded connect, thread 1", replace the valve R323	A2	221
R3032-16-S3 OMB0344	DN 32	Kv 16	Internal threaded connect, thread 1 ¼", replace the valve R331	A2	312

VBG3... 3-WAY CONTROL BALL VALVE

Brass, PN25, Tmax 120 $^{\circ}$ C, angle of rotation 90 $^{\circ}$ C, Suitable actuators MVN... Applications: heating and ventilation



Valve serie available on request. See datasheet from our website.

Connection sets

EXTERNAL THREADED CONNECTIONS

All connection sets made of zinc covering durability brass.



L15UK-3/8" OMB0183	DN 15	External threaded R 3/8", Internal thread to valve R ½"	A1	14
L15UK-1/2" OMB0120	DN 15	External threaded R $\frac{1}{2}$, Internal thread to valve R $\frac{3}{4}$	A1	34
ACN-15T 0MB0190	DN 15	External threaded R 3/8", tapered	A1	18
L20UK-3/4" 0MB0121	DN 20	External threaded R $^{3}\!\!\!/^{\!\!\!/}$, Internal thread to valve R 1"	A1	38
L25UK-1" OMB0122	DN 25	External threaded R 1", Internal thread to valve R 11/4"	A1	23
L40UK-1 1/2" 0MB188	DN 40	External threaded R 1½", Internal thread to valve R 2¼"	A1	145

INTERNAL THREADED CONNECTIONS



All connection sets made of zinc covering durability brass.

L205K-1/2"-1/2" OMA0198	DN 20	Internal thread R ½", Internal thread to valve R 1"	A1	23
L25SK-1" 0MB0185	DN 25	Internal thread R 1″, Internal thread to valve R 1½″	A1	28
L25SK-3/4" OMA0200	DN 25	Internal thread R 1", Internal thread to valve R 1 1/4"	A1	27
L325K-1 1/4" OMB0187	DN 32	Internal thread R 1¼", Internal thread to valve R 2"	A1	48
L40SK-1 1/2" 0MB0189	DN 40	Internal thread R 1½", Internal thread to valve R 2¼"	A1	65

WELDINGS



The nut made of zinc covering durability brass, the welded part made of steel.

L15HI OMA0196	DN 15	Welding $\frac{1}{2}$, Internal thread to valve R $\frac{3}{4}$	A1	12
L20HI OMA0197	DN 20	Welding $^{3}\!\!/\!^{"}$, Internal thread to valve R 1 $^{"}$	A1	32
L25HI 0MA0199	DN 25	Welding 1", Internal thread to valve R $1\frac{1}{4}$ "	A1	25

SPARE INSERTS OF VD VALVES

VDP-0.25 0MA0395	VD-0,25 spare inserts	C2	177
VDP-0.4 OMA0396	VD-0,4 spare inserts	C2	177
VDP-0.63 OMA0397	VD-0,63 spare inserts	C2	177
VDP-1.0 0MA0398	VD-1,0 spare inserts	C2	177
VDP-1.6 0MA0399	VD-1,6 spare inserts	C2	177
VDP-2.5 0MA0401	VD-12,5 spare inserts	C2	177
VDP-4.0 0MA0402	VD-4,0 spare inserts	C2	187
VDP-6.3 0MA0403	VD-6,3 spare inserts	C2	218
VDP-10 0MA0400	VD-10 spare inserts	C2	354

STEM SEALS

BOKSIT HW10MM HON227	Set of stem seals for V5011/13 valves	C2	176
BOKSITIIV/SIEM OMBO025	Set of stem seals for Siemens 428488060: 10 mm stem	C2	74
BOKSITIIV/V OMBO026	Set of stem seals for V-valves OMB0026	C2	65

ADAPTER FOR VD-VALVES



JATKE EXTENSION The VD-valve with the adapter JATKE replaces the VS-valve of Satakunnan Valu.

JATKE 215/215 OMB0083	Pair of flange VD215 / SV 215, total length 75 mm	A1	55
JATKE 220/215 OMB0084	Pair of flange VD220 / SV 215, total length 75 mm	A1	55
JATKE 220/220 OMB0085	Pair of flange VD220 / SV 220, total length 100 mm	A1	69
JATKE 225/220 OMB0086	Pair of flange VD225 / SV 220, total length 100 mm	A1	69
JATKE 225/225 OMB0087	Pair of flange VD225 / SV 225, total length 115 mm	A1	96
JATKE 232/225 OMB0088	Pair of flange VD232 / SV 225, total length 115 mm	A1	96



JATKE VD EXTENSION JATKE VD replaces the Osby 2SB valves or tai Siemens VVF valve

JATKE VD15-130 OMB0099	Pair of flange for Osby 2SB and Siemens VVF valves, total length 130 mm	A1	92
JATKE VD20-130 OMB0100	Pair of flange for Osby 2SB and Siemens VVF valves, total length 130 mm	A1	97
JATKE VD20-140 OMB0101	Pair of flange for Osby 2SB valves, total length 140 mm	A1	97
JATKE VD20-160 OMB0102	Pair of flange for Siemens VVF valves, total length 160 mm	A1	97
JATKE VD25-140 OMB0103	Pair of flange for Osby 2SB valves, total length 140 mm	A1	97
JATKE VD25-150 OMA0187	Pair of flange for Osby 2SB valves, total length 150 mm	A1	103
JATKE VD25-160 OMB0104	Pair of flange for Siemens VVF valves, total length 160 mm	A1	97
JATKE VD32-150 OMB0105	Pair of flange for Osby 2SB valves, total length 150 mm	A1	111
JATKE VD32-160 OMB0106	Pair of flange for Siemens VVF valves, total length 160 mm	A1	111

JATKE RV EXTENSION

JATKE PARI RV 3/4"SK-1"UK	Extension 3/4" -> 1" 2 pcs + seals	Δ1	60
OMA0186	Extension 5/4 -> 1 2 pcs + 3edis	/\ i	00

AK... ADAPTERS FOR VALVES

AK15-15 OMB0003	Adapter set for VD15/Salina 15	A1	105
AK20-15 OMB0004	Adapter set for VD20/Salina 15	A1	142
AK20-25 OMB0005	Adapter set for VD20/Salina 25	A1	192
AK25-25 OMB0006	Adapter set for VD25/Salina 25	A1	154

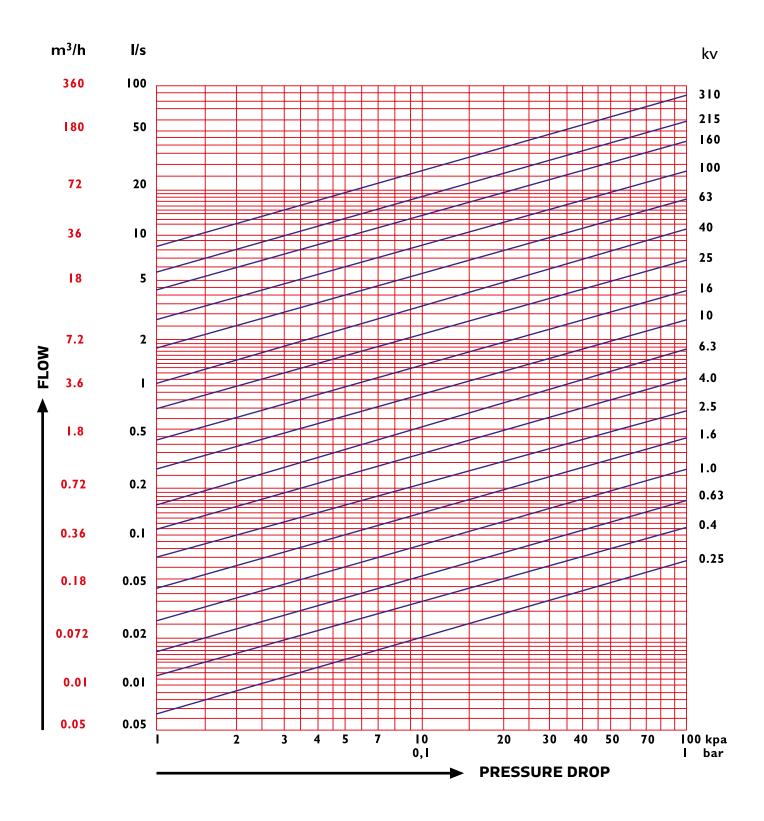
FITTINGS

For actuators ML6420-, ML6425-, ML7420- ja ML7425, with stroke length of 20 mm $\,$

SOV-L&G-HON OMA0268	Fittings for L&G VVG41-, VXG41- and VVF52 valves	A1	58
SOV-TAC-HON OMA0270	Fittings for TAC V241-, V282-, V292-, V293-, V294-, V298-, V384-, V386-, V392- and V394 valves	A1	58
SW-SOV-HON OMA0276	Fittings between Satchwell-Honeywell	A1	36

Note! Combinations of all variations and sizes of valves has not been tested.

Valve dimensioning table



Actuators for valves, 3-point control

M31C150, M6410... VALVE ACTUATORS

Applications: For heating regulation in district heating exchangers and boiler plants, for cooling circuit regulation.

- Speed 150s/6,5mm
- Connection cable 1,5 m



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	M31C150 OMA0206	Valve actuator, 3-point control, 24 V, 50 Hz, 0,7 VA, Power 300 Nm. IP43.	A3	177
!	M6410C2023 HON004	Valve actuator, 3-point control, 24 V, 50 Hz, 0,7 VA, Power 180 Nm. IP43.	A3	174
Ī	M6410L2023 HON008	Valve actuator, 3-point control, 230 V, 50 Hz, 7 VA, Power 180 Nm. IP40.	A3	250
	M6410C4037 HON007	Valve actuator, 3-point control, 24 V, 50 Hz, 0,7 VA, Power 300 Nm. IP43. + 2 micro switch	A3	324
	M6410L2031 HON009	Valve actuator, 3-point control, 230 V, 50 Hz, 7 VA, Power 300 Nm. IP40.	A3	310
!	M6410C4029 HON006	Valve actuator, 3-point control, 24 V, 50 Hz, 0,7 VA, Power 180 Nm. IP43. + 2 micro switch	A3	420
!	M6410L4029 HON010	Valve actuator, 3-point control, 230 V, 50 Hz, 0,7 VA, Power 180 Nm. IP43. + 2 micro switch	A3	436
!	M6410L4037 HON011	Valve actuator, 3-point control, 230 V, 50 Hz, 0,7 VA, Power 300 Nm. IP43. + 2 micro switch	A3	475

ML6420A... VALVE ACTUATORS, IP54

Applications: For heating, domestic hot water and ventilation

- Suitable for valves with 20 mm stroke length.
- Power 600 Nm
- 2 pcs micro switches ready for serial control

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ML6420A3007 HON020	Valve actuator, 3-point control, 24 V, 50 Hz, 4 VA, speed 60s/20mm.	АЗ	410
ML6420A3023 HON022	Valve actuator, 3-point control, 24 V, 50 Hz, 6 VA, speed 30s/20mm.	АЗ	594
ML6420A3015 HON021	Valve actuator, 3-point control, 230 V, 50 Hz, 6,5 VA, speed 60s/20mm.	АЗ	836
ML6420A3031 HON023	Valve actuator, 3-point control, 230 V, 50 Hz, 6,5 VA, speed 30s/20mm.	АЗ	1039

ML6421... VALVE ACTUATORS, IP54

Applications: Heating systems

- Power 1800 Nm
- 2 pcs micro switches ready for serial control



*)

ML6421A3005 HON024	Valve actuator, 3-point control, 24 V, 50 Hz, 13 VA, speed 114s/20mm.	АЗ	1263
ML6421A3013 HON025	Valve actuator, 3-point control, 230 V, 50 Hz, 11 VA, speed 114s/20mm.	АЗ	1122
ML6421B3004 HON026	Valve actuator, 3-point control, 24 V, 50 Hz, 13 VA, speed 210s/38mm.	АЗ	1486
ML6421B3012 HON027	Valve actuator, 3-point control, 230 V, 50 Hz, 11 VA, speed 210s/38mm.	АЗ	1544

M6422L1003 VALVE ACTUATOR, IP54

Rotary actuator for butterfly valve

Power 40 Nm



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M6422L1003	Valve actuator, 3-point control, 230 V, 50 Hz, 7 VA, speed 150s/90°.	АЗ	3107
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! no stock product

^{*)} We reserve the right to change the prices according to Honeywell.

Actuators for valves, 3-point control

ML6425... VALVE ACTUATORS, IP54

Applications: For heating, domestic hot water and ventilation

- Suitable for valves with 20 mm stroke length.
- Power 600 Nm
- 2 pcs micro switches ready for serial control



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!	ML6425A3006 HON028	Valve actuator, 3-point control, 24 V, 50 Hz, 11 VA, speed 108s/20mm. 12s spring. Spring return out.	АЗ	1265
!	ML6425A3014 HON029	Valve actuator, 3-point control, 230 V, 50 Hz, 12 VA, speed 108s/20mm. 12s jousi. Spring return out.	АЗ	1168
!	ML6425B3005 HON030	Valve actuator, 3-point control, 24 V, 50 Hz, 11 VA, speed 108s/20mm. 12s spring. Spring return in.	АЗ	1826
!	ML6425B3021 HON031	Valve actuator, 3-point control, 230 V, 50 Hz, 12 VA, speed 108s/20mm. 12s spring. Spring return in.	АЗ	1881

M7410A... AND M7410C... VALVE ACTUATORS, IP43

Suitable for valves with 2,5 mm stroke length.



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M7410A1001 HON013	Valve actuator, no manual use, 3-point control, 24 V, 50 Hz, 0,7 VA, Speed 60 s/2,5 mm. Power 90 Nm. Connection cable 0,8 m. Used with control ball valve (VSOx).	АЗ	180
M7410C1007 HON014	Valve actuator, no manual use, 3-point control, 24 V, 50 Hz, 0,7 VA, Speed 2,5 min/6,5 mm. Power 180 Nm.	A3	248
M7410C1015 HON015	Valve actuator, no manual use, 3-point control, 24 V, 50 Hz, 0,7 VA, Speed 2,5 min/6,5 mm. Power 300 Nm.	АЗ	441

MVN... VALVE ACTUATORS, IP40

- Used with control ball valve (VBGx)
- Power 3 Nm
- Speed 108s/90°.

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16	10

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1	MVN613A1500 HON038	Valve actuator, 3-point control, 24 V, 50 Hz, 1,5 VA	АЗ	245
1	MVN663A1500	Valve actuator, 3-point control, 230 V, 50 Hz, 4,5 VA	A3	254

NR-SI AND NR-HW ACTUATOR FOR RENOVATION, SIEMENS- AND HONEYWELL -VALVES

Suitable for Siemens 5,5 and Honeywell valves with 6,5 mm stroke length. Applications: For heating, domestic hot water and ventilation



*)

NRYD230-3-SI OMB0168	Power: 500 N	Speed: 35 s	Stroke length: 5,5 mm	Consumption: 3,5 VA 230 VAC	A2	207
NRYD24-3-SI OMB0169	Power: 400 N	Speed: 35 s	Stroke length: 5,5 mm	Consumption: 3 VA 24 VAC /DC	A2	207
NRD24-3-SI OMB0165	Power: 500 N	Speed: 140 s	Stroke length: 5,5 mm	Consumption: 3 VA 24 VAC / DC	A2	185
NRD230-3-SI OMB0164	Power: 500 N	Speed: 140 s	Stroke length: 5,5 mm	Consumption: 3,5 VA 230 VAC	A2	185
NRYD230-3-HW OMB0602	Power: 500 N	Speed: 35 s	Stroke length: 6,5 mm	Consumption: 2,5 VA 230 VAC	A2	207
NRYD24-3-HW OMB0603	Power: 400 N	Speed: 35 s	Stroke length: 6,5 mm	Consumption: 3 VA 24 VAC /DC	A2	207
NRD24-3-HW OMB0599	Power: 500 N	Speed: 140 s	Stroke length: 6,5 mm	Consumption: 3 VA 24 VAC / DC	A2	185
NRD230-3-HW омво598	Power: 500 N	Speed: 140 s	Stroke length: 6,5 mm	Consumption: 3,5 VA 24 VAC	A2	185

HT AND HR... VALVE ACTUATORS

Suitable for R2-, R3- and R4..D(K) ball valves

 $\label{lem:policy} \mbox{Applications: For heating, domestic hot water and ventilation}$



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!	HTC24-3 OMB0071	Power: 5 Nm	Speed: 70 s	Consumption: 1.5 VA 24 VAC / DC	A2	201
!	HTC230-3 OMB0074	Power: 5 Nm	Speed: 70 s	Consumption: 2.5 VA 230 VAC	A2	201
	HTD24-3 OMB0075	Power: 5 Nm	Speed: 140 s	Consumption: 1.5 VA 24 VAC / DC	A2	194
	HTYD24-3 OMB0078	Power: 5 Nm	Speed: 35 s	Consumption: 1.5 VA 24 VAC / DC	A2	194

Price EUR Vat 0%

M41A15 VALVE ACTUATOR, IP54

Suitable for valves with 6,5 mm stroke length.

Applications: For heating regulation in district heating exchangers and boiler plants, for cooling circuit regulation.



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M41A15	Valve actuator, 0(2)10 VDC controlled. 24 V, 50 Hz, 5 VA. Speed 15 s/6,5 mm.	АЗ	200
OMA0207	Power 400 Nm.	A3	308

M31A150 VALVE ACTUATOR, IP42

Suitable for valves with 6,5 mm stroke length.

Applications: For heating and ventilation.



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M31A150	Valve actuator, 0(2)10 VDC controlled. 24 V, 50 Hz, 1,7 VA, Speed 150s/6,5 mm. Power 300 Nm.	٧3	215
OMA0205	Connection cable 1,5 m.	73	215

M7410E... VALVE ACTUATORS, IP43

Applications: Heating- and ventilation systems

- Suitable for valves with 6,5 mm stroke length.
- Connection cable 1,5 m



	M7410E1002 HON016	Valve actuator, no manual use, 0(2)10 VDC controlled. 24 V, 50 Hz, 1,7 VA. Speed 150 s/6,5 mm. Power 180 Nm.	A3	428
!	M7410E1028 HON017	Valve actuator, no manual use, 0(2)10 VDC controlled. 24 V, 50 Hz, 1,7 VA. Speed 150 s/6,5 mm. Power 300 Nm.	АЗ	422
!	M7410E2026 HON018	Valve actuator, 0(2)10 VDC controlled. 24 V, 50 Hz, 1,7 VA. Speed 150 s/6,5 mm. Power 180 Nm.	A3	382
!	M7410E2034 HON019	Valve actuator, 0(2)10 VDC controlled. 24 V, 50 Hz, 1,7 VA. Speed 150 s/6,5 mm. Power 300 Nm.	АЗ	522

ML7420A... VALVE ACTUATORS, IP54

Suitable for valves with 20 mm stroke length.

Power 600 Nm

Applications: For heating, domestic hot water and ventilation



ML7420A6009 HON032	Valve actuator, 0(2)10 VDC controlled. 24 V, 50 Hz, 5 VA, speed 60s/20mm. Analog output of 2-10 VDC.	АЗ	620
ML7420A6017 HON237	Valve actuator, 0(2)10 VDC controlled. 24 V, 50 Hz, 7 VA, speed 30s/20mm. Analog output of 2-10 VDC.	A3	636

ML7421... VALVE ACTUATORS, IP54

Applications: For heating

Power 1800 Nm



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1	ML7421A3004 HON034	Valve actuator, 0(2)10 VDC controlled. , 24 V, 50 Hz, 14 VA, speed 114s/20mm. Analog output of 2-10 VDC.	АЗ	984
!	ML7421B3003 HON035	Valve actuator, 0(2)10 VDC controlled. , 24 V, 50 Hz, 14 VA, speed 210s/38mm. Analog output of 2-10 VDC.	АЗ	1509



^{*)} We reserve the right to change the prices according to Honeywell.

0 - 10 V controlled actuators

ML7425... VALVE ACTUATORS, IP54

Applications: Heating systems

- Suitable for valves with 20 mm stroke length.
- Power 600 Nm



*)

!	ML7425A6008 HON036	Valve actuator, 0(2)10 VDC controlled. 24 V, 50 Hz, 12 VA, speed 108s/20mm. 12s spring. Spring return out. Analog output of 2-10 VDC.	АЗ	1241
!	ML7425B6007 HON037	Valve actuator, 0(2)10 VDC controlled. 24 V, 50 Hz, 12 VA, speed 108s/20mm. 12s spring. Spring return in. Analog output of 2-10 VDC.	АЗ	1488

MVN... VALVE ACTUATOR, IP40

Used with control ball valve (VBGx)



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MVN713A1500	3 Nm. /	A3	285
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HTC24-SR VALVE ACTUATOR

Connection cable 1 m. The control voltage 0 (2) -10 V. Suitable with WNR-adapter for R-series ball valves and with MS-NRE6-adapter for Esben VRG and VRB valves.

Applications: For heating



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HTC24-SR OMB0072	Power: 5 Nm	Speed: 70 s	Consumption: 3 VA 24 VAC / DC	A2	239
HTD24-SR OMB0076	Power: 5 Nm	Speed: 140 s	Consumption: 3 VA 24 VAC / DC	A2	239
HTYD24-SR OMB0079	Power: 5 Nm	Speed: 35 s	Consumption: 3 VA 24 VAC / DC	A2	259

NR... VALVE ACTUATOR

Applications: For heating, domestic hot water and ventilation



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NRYD24-SR-SI OMB0170	Power: 500 N	Speed: 35 s	Stroke length 5,5 mm	Consumption: 3 VA 24 VAC / DC	A2	301
NRYD24-SR-HW OMA0221	Power: 500 N	Speed: 35 s	Stroke length 6,5 mm	Consumption: 3 VA 24 VAC / DC	A2	301
NRYC24-SR-HW OMB0601	Power: 500 N	Speed: 17 s	Stroke length 6,5 mm	Consumption: 2,5 VA 24 VAC / DC	A2	324
NRD24-SR-HW OMB0600	Power: 500 N	Speed: 140 s	Stroke length 6,5 mm	Consumption: 1,5 VA 24 VAC / DC	A2	279

ADAPTERS FOR VALVE ACTUATORS

MS-NRE OMB0142	Adapter for the valves Esbe and Termomix	A2	14
MS-NRE6 OMB0144	Adapter for the valves: VRG, VRB	A2	14
WNR OMC0180	Adapter between NR-actuator and ball valve	A2	25

Damper actuators

Honeywell damper actuators

- · Suitable for all sizes of shafts
- Very easy to install and connect
- Does not require separate casing for power supply

N05... ja N10... DAMPER ACTUATORS, IP54

- 5 Nm for 1 m² dampers
- 10 Nm for 2 m² dampers



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N05010 HON228	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 5 Nm. Analog output of 2-10 VDC.	АЗ	228
N05010-SW2 HON041	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 5 Nm. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control.	АЗ	495
N05230-2POS HON042	Damper actuator, 2-point control, 230 VAC, 50 Hz, 22 VA, speed 110s. Power 5 Nm.	АЗ	283
N0524 HON314	Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 5 Nm.	АЗ	316
N0524-SW2 HON043	Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 5 Nm. 2 pcs micro switches ready for serial control.	АЗ	328
N10010 HON315	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 10 Nm. Analog output of 2-10 VDC.	АЗ	514
N10010-SW2 HON044	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 10 Nm. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control.	АЗ	551
N10230-2POS HON045	Damper actuator, 2-point control, 230 VAC, 50 Hz, 22 VA, speed 140s. Power 10 Nm.	АЗ	385
N1024 HON316	Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm.	АЗ	349
N1024-SW2 HON046	Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. 2 pcs micro switches ready for serial control.	АЗ	382
	HON228 N05010-SW2 HON041 N05230-2POS HON042 N0524 HON314 N0524-SW2 HON043 N10010 HON315 N10010-SW2 HON044 N10230-2POS HON045 N1024 HON316 N1024-SW2	Power 5 Nm. Analog output of 2-10 VDC. N05010-SW2 HON041 Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 5 Nm. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control. N05230-2POS HON042 Damper actuator, 2-point control, 230 VAC, 50 Hz, 22 VA, speed 110s. Power 5 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 5 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 5 Nm. 2 pcs micro switches ready for serial control. N10010 HON315 Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 10 Nm. Analog output of 2-10 VDC. N10010-SW2 HON044 Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 10 Nm. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control. N10230-2POS HON045 Damper actuator, 2-point control, 230 VAC, 50 Hz, 22 VA, speed 140s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm.	Power 5 Nm. Analog output of 2-10 VDC. N05010-SW2 HON041 Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 5 Nm. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control. N05230-2POS HON042 Damper actuator, 2-point control, 230 VAC, 50 Hz, 22 VA, speed 110s. Power 5 Nm. A3 N0524 HON314 Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 5 Nm. A3 N0524-SW2 HON043 Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 5 Nm. 2 pcs micro switches ready for serial control. N10010 Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 10 Nm. Analog output of 2-10 VDC. N10010-SW2 HON044 Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 5 VA, speed 90/110s. Power 10 Nm. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control. N10230-2POS HON045 Damper actuator, 2-point control, 230 VAC, 50 Hz, 22 VA, speed 140s. Power 10 Nm. A3 N1024 HON316 Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. A3 N1024-SW2 Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 5 VA, speed 110s. Power 10 Nm. Power 10 Nm. 2 pcs

N20... DAMPER ACTUATORS, IP54

- For 4 m² dampers
- Power 20 Nm



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	N20010 HON317	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 6 VA, speed 95/110s. Analog output of 2-10 VDC.	АЗ	597		
!	N20010-SW2 HON047	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 6 VA, speed 95/110s. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control.				
1	N20230 HON048	Damper actuator, 2- and 3-point control, 230 VAC, 50 Hz, 8 VA, speed 110s.	АЗ	427		
!	N20230-SW2 HON049	Damper actuator, 2- and 3-point control, 230 VAC, 50 Hz, 8 VA, speed 110s. 2 pcs micro switches ready for serial control.	АЗ	461		
	N2024 HON318	Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 6 VA, speed 110s. Voima 20 Nm.	АЗ	464		
!	N2024-SW2 HON050	Damper actuator, 2- and 3-point control, 24 VDC/ac, 50 Hz, 6 VA, speed 110s. 2 pcs micro switches ready for serial control.	АЗ	454		

N34... DAMPER ACTUATORS, IP54

- For 6 m² dampers
- Power 34 Nm



1	N34010 HON051	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 6 VA, speed 95/110s. Analog output of 2-10 VDC.	A3	777
1	N34230 HON052	Damper actuator, 2- and 3-point control, 230 VAC, 50 Hz, 13 VA, speed 110s.	АЗ	765

Damper actuators

S03 / S05... DAMPER ACTUATORS, IP54

- Spring return 25 s
- 3 Nm for 0,6 m² dampers
- 5 Nm for 1m² dampers



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	S03010 HON319	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 7 VA, speed 90s. Power 3 Nm. Analog output of 2-10 VDC.	АЗ	357
	S0524-2POS HON321	Damper actuator, 2-point control,24 VDC/ac, 50 Hz, 8 VA, speed 45s. Power 5 Nm.		490
Ī	S0524-2POS-SW1 HON062	Damper actuator, 2-point control, 24 VDC/ac, 50 Hz, 8 VA, speed 45s. Power 5 Nm. 1 pcs adjustable micro switch.	АЗ	465
į	S05010 HON058	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 8 VA, speed 90s. Power 5 Nm. Analog output of 2-10 VDC.	АЗ	573
!	S05010-SW1 HON059	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 8 VA, speed 90s. Power 5 Nm. Analog output of 2-10 VDC. 1 pcs adjustable micro switch.	АЗ	459
Ĺ	S05230-2POS HON060	Damper actuator, 2-point control, 230 VAC, 50 Hz, 14 VA, speed 45s. Power 5 Nm.	A3	322
!	S05230-2POS-SW1 HON061	Damper actuator, 2-point control, 230 VAC, 50 Hz, 14 VA, speed 45s. Power 5 Nm. 1 pcs adjustable micro switch.	АЗ	419

\$10... ja \$20... DAMPER ACTUATORS, IP54

- Spring return 20 s
- 10 Nm for 1,5 m² dampers
- 20 Nm for 4,6 m² dampers



S10010 HON322	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 14 VA, speed 90s. Power 10 Nm. Analog output of 2-10 VDC.	АЗ	671
S10010-SW2 HON063	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 14 VA, speed 90s. Power 10 Nm. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control.	АЗ	511
S1024-2POS HON324	Damper actuator, 2-point control, 24 VDC/ac, 50 Hz, 30 VA, speed 45s. Power 10 Nm.	АЗ	496
S1024-2POS-SW2 HON065	Damper actuator, 2-point control, 24 VDC/ac, 50 Hz, 30 VA, speed 45s. Power 10 Nm. 2 pcs micro switches ready for serial control.	АЗ	422
S10230-2POS HON323	Damper actuator, 2-point control, 230 VAC, 50 Hz, 45 VA, speed 45s. Power 10 Nm.	A3	551
\$10230-2POS-SW2 HON067	Damper actuator, 2-point control, 230 VAC, 50 Hz, 45 VA, speed 45s. Power 10 Nm. 2 pcs micro switches ready for serial control.	АЗ	730
S20010 HON325	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 16VA, speed 90s. Power 20 Nm. Analog output of 2-10 VDC.	АЗ	938
S20010-SW2 HON066	Damper actuator, 0(2)10 VDC controlled, 24 VDC/ac, 50 Hz, 16VA, speed 90s. Power 20 Nm. Analog output of 2-10 VDC. 2 pcs micro switches ready for serial control.	АЗ	864
S2024-2POS HON327	Damper actuator, 2-point control, 24 VDC/ac, 50 Hz, 45 VA, speed 45s. Power 20 Nm.	A3	717
S2024-2POS-SW2 HON068	Damper actuator, 2-point control, 24 VDC/ac, 50 Hz, 45 VA, speed 45s. Power 20 Nm. 2 pcs micro switches ready for serial control.	АЗ	536
S20230-2POS HON326	Damper actuator, 2-point control, 230 VAC, 50 Hz, 60 VA, speed 45s. Power 20 Nm.	A3	836
S20230-2POS-SW2 HON067	Damper actuator, 2-point control, 230 VAC, 50 Hz, 60 VA, speed 45s. Power 20 Nm. 2 pcs micro switches ready for serial control.	АЗ	730

Damper actuators

NM..A DAMPER ACTUATOR, IP 54

- 10 Nm
- For 2 m2 dampers
- The drive time 150 s



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1	NM24A OMB0158	3-point control / open-closed	Power: 10 Nm	Consumption: 4 VA 24 VAC / DC	A2	192
1	NM230A OMB0157	3-point control / open-closed	Power: 10 Nm	Consumption: 6 VA 230 VAC	A2	198
!	NM24A-SR OMB0159	2-10 V-control	Power: 10 Nm	Consumption: 4 VA 24 VAC / DC	A2	274

SM..A DAMPER ACTUATOR, IP 54

- 20 Nm
- For 4 m2 dampers
- The drive time 150 s



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SM24A OMB0385	3-point control / open-closed	Power: 20 Nm	Consumption: 4 VA 24 VAC / DC	A2	222
SM230A OMB0384	3-point control / open-closed	Power: 20 Nm	Consumption: 6 VA 230 VAC	A2	227
SM24A-SR OMB0386	2-10 V-control	Power: 20 Nm	Consumption: 4 VA 24 VAC / DC	A2	309

NF... DAMPER ACTUATOR

- 10 Nm
- For 2 m2 dampers
- \bullet The drive time 75 s, NF24A-SR 150 s
- Spring return 20 s



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NF24A OMB0155	Open-closed control	Power: 10 Nm	Consumption: 5,5 VA 24 VAC / DC	A2	312
NF24A-SR OMB0156	Control 210 V	Power: 10 Nm	Consumption: 5,5 VA 24 VAC / DC	A2	368

SF... DAMPER ACTUATOR, IP 54

- 15 Nm
- For 4 m2 dampers
- \bullet The drive time 75 s, SF24A-SR 150 s
- Spring return 20 s



SF24A OMB0377	Open-closed	Power: 20 Nm	Consumption: 7,5 VA 24 VAC / DC	A2	382
SFA OMB0376	Open-closed	Power: 20 Nm	Consumption: 18 VA 24-240 VAC/ 24-125 VDC	A2	438
SF24A-SR OMB0378	2-10 V-control	Power: 20 Nm	Consumption: 7 VA 24 VAC / DC	A2	438



 $^{^{\}ast})$ We reserve the right to change the prices according to Belimo

Other field devices

CO1A THERMOSTAT



C01A	Thermostat, surface mounting 2090 °C, differential range 7 °C
OMA0043	Thermostat, surface mounting 2090 C, differential range 7 C

A2

74

JVA24 FROST PROTECTION THERMOSTAT

JVA 24 is security component, which monitors and adjusts AHU's water radiator return temperature if needed. It is designed to prevent freezing of water radiator. Suitable sensors Ouman TMI Pt 1000 and Ni 1000.



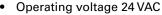
JVA24 OMB0107	Anticipating frost protection thermostat	A2	201

EHC VOLTAGE DIVIDER

- Operating voltage 24 VAC
- Input 0-10 VDC
- Output 0-10 V /10-0 V



EHR VOLTAGE-CONTROLLED RELAY, IP 55



- Input 0 10 V
- 2 pcs output, exchange contact 8 (1) A / 230 VAC

EHR OMA0154 Voltage-controlled relay	A1	1 !	94
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DUCT THERMOMETER Ø 100 MM

- Length 200 mm
- Termperature range -40 °C ... +60 °C



TI 0MB0399	Duct thermometer	A2	22	2

Other field devices

ETT6 INDULGE BUTTON

- 1...6 hours extra running time for the device by pressing the button.



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ETT6 OMB0516	Indulge button	A2	2 1	112

PWR POWER UNITS

Four different outputs power source.



PWR 10 OMB0489	Power unit 24 VAC / 10 VA, width 35,5 mm (2M)	C2	23
PWR 24 OMB0488	Power unit 24 VAC / 24 VA, width 54 mm (3M)	C2	26
PWR 40 OMB0486	Power unit 24 VAC / 40 VA, width 54 mm (3M)	C2	36
PWR 63 OMB0487	Power unit 24 VAC / 63 VA, width 106 mm (6M)	C2	54
PWR 24V/1A OMB0522	Power unit 24VDC/1A, width 35 mm (2M)	C2	26

VAK-POWER UNITS



PWR130 OMB0425	Protective voltage transformer with thermal prot.230VAC / 24 VAC, 130 VA. DIN-rail mounting W90,L84,H110	C2	43
PWR180 OMB0426	Protective voltage transformer with thermal prot. 230VAC / 24 VAC, 180 VA. W105,L89,H115	C2	58
PWR250 OMB0427	Protective voltage transformer with thermal prot.230VAC / 24 VAC, 250 VA. W130, L115, H119	C2	73

Ouman Oy - General Terms of Delivery and Warranty

SCOPE OF APPLICATION

These Terms of Delivery shall apply to any retail of components and equipment between Ouman Oy and the customer, unless other agreements are signed (excluding deliveries involving customised products or deliveries that involve a significant amount of installation).

PRICING

Pricing is based on Ouman Oy's pricelist valid on the day the order is placed. All prices are indicated without value added tax. The taxes are calculated according to the prevailing legislation. In the event that any changes take place in payments related to customs, freight, VAT or other general payments before the date of delivery, the seller shall have the right to adjust the pricing of the articles in the same proportion as the changed pricing or payments have impacted the price of the articles.

OFFER

The price indicated in the offer is a net price for a given unit (excluding VAT) for the indicated quantity located in the seller's warehouse. Any offer provided by the seller is binding and valid for 30 days, unless otherwise indicated. If the seller's offer is subject to goods still remaining unsold at the time of buyer's order, the goods can be sold to a third party during the period of the offer and the seller does not guarantee that there is stock.

AGREEMENT

An agreement is formed between the seller and the buyer once the parties to the agreement have signed a written agreement (Procurement Agreement); the buyer has, in writing or verbally, agreed a binding agreement (order), or the seller has, in writing or verbally, confirmed an order, which is not based on an offer or differs from an offer, per se (order confirmation).

DIAGRAMS AND DESCRIPTIONS

Any price, measurement, weight and performance-related information indicated in descriptions, figures, diagrams, lists and pricelists are provided without guarantees, unless the offer specifically refers to such information. Any drawings and technical documents required for the manufacturing of the goods or their components, delivered, prior to or after entering into an agreement, from one party to another party to an agreement, shall remain in the possession of the supplier. The recipient shall not have the right to use, duplicate, deliver or otherwise provide any related information to a third party.

TERMS OF DELIVERY

The terms of delivery is FCA (Incoterms 2010), unless other agreements are signed.

PACKAGE

Any prices indicated in the pricelists and catalogues refer to unpacked goods.

DELIVERY TIME

The seller shall deliver the goods as agreed. In the event that no delivery time is agreed upon, the seller shall deliver the ordered products immediately, or as soon as stock is available. In the event that the seller has receivables due from the buyer, the seller, after informing the buyer, shall have the right to delay agreed deliveries until due payments are remitted. In such event it is considered that the agreed delivery time is delayed accordingly, and the buyer shall not have the right to make claims related to such delay. The goods are considered to be delivered once they are dispatched or reported as ready for delivery and the buyer is contractually obligated to retrieve the goods from the seller or from a location indicated by the seller.

DELAY NOTIFICATIONS

The buyer and the seller must immediately inform one another in the even that a delivery or reception of delivery may be delayed. Once either party receives notification of a delay, they must immediately inform the other party, stating the reason for the delay and the estimated new delivery date.

DELIVERY AND INSPECTION OF GOODS

Liability for risk is transferred to the buyer upon delivery of the goods. The goods must be equipped with a delivery note. Upon receiving the delivery, the buyer must confirm that the delivery is in accordance with the order and the delivery note and free of external damages. The goods must be appropriately inspected by the buyer once more before commissioning, mounting or installation. Any reclamation related to quantities or type of goods shall be done in writing within 8 business days of receipt of goods. Failure to do so will void the buyer's right to claims related to deficiencies or inadequacies.

Ouman Oy - General Terms of Delivery and Warranty

FORCE MAJEURE

The seller is not obligated to fulfil their contractual obligations in the event of a force majeure, or if the fulfilment of the contractual obligations would require sacrifices that are disproportionate in terms of the resulting benefit to the buyer. In the event that the force majeure ceases within a reasonable timeframe, the buyer shall have the right to demand the seller to meet their contractual obligations. In the event that the manufacturer or supplier, who the seller has procured the goods from, neglects their contractual obligations, resulting in a delay in a delivery by the seller, the seller shall not be liable for damages incurred by the buyer in such event. If the seller is affected by a force majeure described herein, the buyer shall not have the right to demand a new delivery to replace defective goods. In the event that the fulfilment of contractual obligations within a reasonable timetable is impossible due to a force majeure, both parties to the agreement shall have the right, without incurred liability, to terminate the agreement by notifying the other party in writing.

PAYMENT

Payment term begins from the date of the invoice. In the event that a payment is delayed, the buyer shall be liable to pay interest on overdue payments according to the current interest rates applied by the seller, as well as any costs resulting from the recovery of overdue payments.

WARRANTY

The seller provides a 24-month warranty for the quality of the materials and workmanship of all delivered goods. The warranty period begins on the date of purchase. In the event that material or workmanship defects are detected and the goods are sent, without delay or no later than by the end of the warranty period, back to the seller, the seller agrees to address the defect at their own discretion either by repairing the damaged goods or by delivering a new, defect-free goods, free of charge, to the buyer. The buyer is responsible for the costs resulting from delivering the goods to the seller for warranty repairs, while the seller is responsible for the costs resulting from returning the goods to the buyer. The warranty shall not cover damages resulting from accidents, lightning, floods or other natural events, normal wear and tear, inappropriate, negligent or unusual use of the goods, overloading, incorrect maintenance, or reconstruction, alteration and installation work which is not carried out by the seller (or their authorised representative. The buyer shall be responsible for selecting material of equipment susceptible to corrosion, unless other agreements are signed. In the event that the seller alters the structure of their equipment, they shall not be obligated to make similar changes to previously procured equipment. The validity of the warranty requires that the buyer has fulfilled their contractual obligations related to the delivery. The seller shall provide a new warranty for goods replaced or repaired under the original warranty. However, the new warranty shall only be valid until the expiration of the warranty period of the original goods. For any repairs not covered by the warranty shall be subject to a 3-month maintenance warranty covering the material and workmanship.

INDIRECT DAMAGES

The seller shall not be liable for any indirect damages incurred by the buyer as a result of delays or inadequacies related to the delivery. Furthermore, the seller shall not be liable for indirect damages resulting from a defective product in the event that the defect is caused by damages indicated in the warranty section as not covered by the warranty. Subject to the terms of the product liability insurance, the seller's insurance company shall reimburse any indirect material damages or physical injuries resulting from a defective product, provided that the defect could not be discovered at the factory under normal testing conditions.

RETURNS

The transaction is binding and irreversible, and the seller shall not be obligated to accept any product returns. In the event, however, that the seller as explicitly agreed to a return, any goods delivered under this agreement shall be received and reimbursed up to 70% of the retail price. Such goods can only be received and reimbursed in the event that they are returned in the original packing and condition.

NOTIFICATIONS

The sender is responsible for ensuring that notifications sent to the other party are delivered.

OWNERSHIP

The ownership of the goods is transferred to the buyer upon remittance of the entire purchase price.

DISAGREEMENTS

Any disagreements resulting from the agreements and their terms should be primarily resolved through bilateral negotiations. In the event that the disagreement cannot be resolved, the disagreement shall be resolved through arbitration in Finland according to current legislation. The arbitration court consists of one (1) member.

The factory and sales office



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