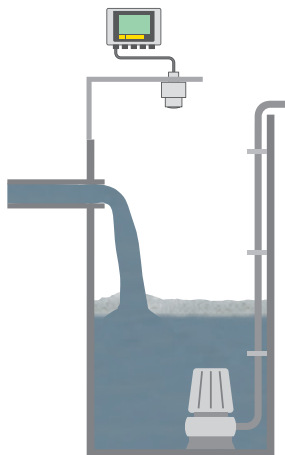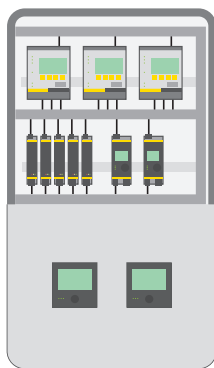# Controllers

Area of application

Together with connected sensors, controllers enable a variety of measuring tasks, such as e.g. level, gauge, differential pressure, process pressure, distance, interface and temperature measurement.

Principle of operation

Sensors detect physical values in a vessel and forward them to the controller. Through an adjustment in the controller, the readings can be adapted to the specific conditions of the measuring point. They appear on its display and can be retransmitted via the integrated current or digital outputs connected to field mounted indicators or higher-level control systems. In addition, point level signals can be programmed to control pumps or other actuators via integrated relays.

Advantages

Versatile linearisation and scaling of outputs with differential control capability on dual-sensor variants. The large displays, easy, app-based setup or Ethernet and RS232 communication capability offers simple integration into higher-level systems. Quick and easy installation thanks to a wide range of variants and mounting options. Cost savings through integrated sensor power supply, multi-drop sensor connection, even in explosion protected areas.

	VEGAMET 841/842	VEGAMET 861/862
Application	Measured value display, point level alarms, pump control, flow measurement in open channels	Measured value display, point level alarms, pump control, flow measurement in open channels, data logger
Input	1/2x 4 … 20 mA sensor input	1/2x 4 … 20 mA/HART sensor input 2/4x digital input
Output	1/2x 0/4 … 20 mA current output 3x operating relay 1x fail safe relay (instead of an operating relay)	1/3x 0/4 … 20 mA current output 4/6x operating relay 1x fail safe relay (instead of an operating relay)
Operating voltage	24 ... 65 V DC 100 ... 230 V AC, 50/60 Hz	24 ... 65 V DC 100 ... 230 V AC, 50/60 Hz
Mounting	Wall/pipe mounting in the field	Wall/pipe mounting in the field
Display	LCD matrix display, black and white backlight with colour change according to status, relay or measured value	LCD matrix display, black and white backlight with colour change according to status, relay or measured value
Adjustment	On-site adjustment with 4 keys, smartphone/tablet/PC and PACTware or VEGA Tools app	On-site adjustment with 4 keys, smartphone/tablet/PC and PACTware or VEGA Tools app
Approvals	ATEX, IEC, cULus, NEPSI, EAC, INMETRO, TIIS, KOSHA/KTL, SEPRO, CCOE, IA, WHG	ATEX, IEC, cULus, NEPSI, EAC, INMETRO, TIIS, KOSHA/KTL, SEPRO, CCOE, IA, WHG, mcerts
Benefit	• Clear, easy-to-read (at distance), user-programmable display • Fast setup thanks to simple intuitive menu navigation and application wizards • Secure, user-friendly wireless operation via Bluetooth with smartphone, tablet or PC	

Controllers

	VEGAMET 341/342	VEGAMET 391
Application	Measured value visualisation, limit value monitoring, pump control, flow measurement in open channels	Measured value indication and simple control functions, remote enquiry of measured values, remote data retrieval, data transmission via Ethernet
Input	1/2x 4 … 20 mA sensor input	1x 4 … 20 mA/HART sensor input
Output	1/2x 0/4 … 20 mA current output 3x operating relay 1x fail safe relay (instead of operating relay)	1x 0/4 … 20 mA current output 6x operating relay 1x fail safe relay (instead of operating relay) 1x Ethernet (optional) 1x RS232 (optional)
Operating voltage	24 ... 65 V DC 100 ... 230 V AC, 50/60 Hz	24 … 65 V DC 24 … 230 V AC, 50/60 Hz
Mounting	Panel mounting	Front panel or wall mounting Carrier rail 35 x 7.5 acc. to EN 50022
Display	LCD matrix display, black and white backlight with colour change according to status, relay or measured value	LCD matrix display, background lighting
Adjustment	On-site adjustment with rotary knob/push-button, smartphone/tablet/PC and PACTware or VEGA Tools app	On-site adjustment with 4 keys, PACTware/DTM
Approvals	ATEX, IEC, cULus, WHG, Ship	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, SIL2
Benefit	▪ Clear, easy-to-read (at distance), user-programmable display ▪ Fast setup thanks to simple intuitive menu navigation and application wizards ▪ Secure, user-friendly wireless operation via Bluetooth with smartphone, tablet or PC	▪ Simple connection of sensor thanks to integrated power supply ▪ Excellent visibility via large display

VEGAMET 141/142	VEGAMET 624	VEGAMET 625	VEGASCAN 693
Measured value visualisation, limit value monitoring, pump control, flow measurement in open channels	Measured value indication, simple control functions as well as remote enquiry of measured values for one 4 ... 20 mA/HART sensor, data transmission via Ethernet	Measured value indication, simple control functions as well as remote enquiry of measured values for two HART sensors, data transmission via Ethernet	Measured value indication and remote enquiry of measured values for up to 15 HART sensors, data transmission via Ethernet
1/2x 4 … 20 mA sensor input	1x 4 … 20 mA/HART sensor input	2x HART sensor input	15x HART sensor input
1/2x 0/4 … 20 mA current output 3x operating relay 1x fail safe relay (instead of operating relay)	3x 0/4 … 20 mA current output 3x operating relay 1x fail safe relay 1x Ethernet (optional) 1x RS232 (optional)	3x 0/4 … 20 mA current output 3x operating relay 1x fail safe relay 1x Ethernet (optional) 1x RS232 (optional)	1x fail safe relay 1x Ethernet (optional) or 1x RS232 (optional)
24 ... 65 V DC 100 ... 230 V AC, 50/60 Hz	24 … 65 V DC 24 … 230 V AC, 50/60 Hz	24 … 65 V DC 24 … 230 V AC, 50/60 Hz	24 … 65 V DC 24 … 230 V AC, 50/60 Hz
Carrier rail 35 x 7.5 acc. to EN 50022	Carrier rail 35 x 7.5 acc. to EN 50022	Carrier rail 35 x 7.5 acc. to EN 50022	Carrier rail 35 x 7.5 acc. to EN 50022
LCD matrix display, black and white backlight with colour change according to status, relay or measured value	LCD matrix display, background lighting	LCD matrix display, background lighting	LCD matrix display, background lighting
On-site adjustment with rotary knob/push-button, smartphone/tablet/PC and PACTware or VEGA Tools app	On-site adjustment with 4 keys, PACTware/DTM	On-site adjustment with 4 keys, PACTware/DTM	On-site adjustment with 4 keys, PACTware/DTM
ATEX, IEC, cULus, WHG, Ship	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, Ship	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, Ship	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, Ship
▪ Compact design with display for on-site checking ▪ Fast setup and commissioning via simple menu navigation and application wizards ▪ Secure, user-friendly wireless operation via Bluetooth with smartphone, tablet or PC	▪ Simple connection of sensor thanks to integrated power supply ▪ Versatile use through relay and current outputs as well as integrated web server ▪ Excellent visibility via large display		

Controllers

	VEGATOR 111/112	**VEGATOR 121/122**
Application	Transmission of NAMUR signals for level signalling	Transmission of 8/16 mA signals for level signalling
Input	VEGATOR 111: single channel VEGATOR 112: double channel	VEGATOR 121: single channel VEGATOR 122: double channel
Output	VEGATOR 111: 1x operating relay (SPDT), optional 1x fail safe relay (SPDT) VEGATOR 112: 2x operating relay (SPDT)	VEGATOR 121: 1x operating relay (SPDT), optional 1x fail safe or operating relay (SPDT) VEGATOR 122: 2x operating relay (SPDT)
Operating voltage	24 … 65 V DC 24 … 230 V AC, 50/60 Hz	24 … 65 V DC 24 … 230 V AC, 50/60 Hz
Mounting	Carrier rail 35 x 7.5 acc. to EN 50022	Carrier rail 35 x 7.5 acc. to EN 50022
Display	1x LED voltage supply 1x LED switching signal per channel 1x LED false signal per channel	1x LED voltage supply 1x LED switching signal per channel 1x LED false signal per channel
Approvals	ATEX, IEC, EAC (GOST), Overfill protection, Ship, SIL2, UL	ATEX, IEC, EAC (GOST), Overfill protection, Ship, SIL2, UL
Benefit	• Rapid implementation of simple control and regulatory functions • Increased operational reliability through line monitoring and test button • Easy installation via carrier rail	

	VEGATOR 131/132	VEGATOR 141/142
Application	Controller for conductive probes	Controller for 4 … 20 mA signals for level detection
Input	VEGATOR 131: single channel VEGATOR 132: double channel	VEGATOR 141: single channel VEGATOR 142: double channel
Output	VEGATOR 131: 1x operating relay, optional 1x fail safe relay output (SPDT) VEGATOR 132: 2x operating relay (SPDT)	VEGATOR 141: 1x operating relay (SPDT), optional 1x fail safe relay output (SPDT) VEGATOR 142: 2x operating relay (SPDT)
Operating voltage	24 … 65 V DC 24 … 230 V AC, 50/60 Hz	24 … 65 V DC 24 … 230 V AC, 50/60 Hz
Mounting	Carrier rail 35 x 7.5 acc. to EN 50022	Carrier rail 35 x 7.5 acc. to EN 50022
Display	1x LED voltage supply 1x LED switching signal per channel 1x LED false signal per channel	1x LED voltage supply 1x LED switching signal per channel 1x LED false signal per channel
Approvals	ATEX, IEC, EAC (GOST), Overfill protection	ATEX, IEC, EAC (GOST), Overfill protection, Ship, SIL2, UL
Benefit	▪ Rapid implementation of simple control and regulatory functions ▪ Increased operational reliability through line monitoring ▪ Easy installation via carrier rail	