

### Signal conditioning instruments





### Area of application

Together with connected sensors, signal conditioning instruments 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 signal conditioning instrument. Through an adjustment in the signal conditioning instrument, 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 outputs connected to field mounted indicators or higher-level control systems. In addition, point level signals can be used to control pumps or other actuators via integrated relays.

#### **Advantages**

Versatile use through scalable outputs. Simple integration into higher-level systems. Easy installation via mounting rails. Cost savings through integrated sensor supply, even in explosion protected areas.

	VEGAMET 381	VEGAMET 391
	15.85 % VEDART 381	
Application	Measured value indication and simple control functions	Measured value indication and simple control functions, remote enquiry of measured values
Input	1x 4 20 mA sensor input	1x 4 20 mA/HART sensor input
Hysteresis	Adjustable	Adjustable
Output	1x 0/4 20 mA current output 2x operating relay 1x fail safe relay	<ul> <li>1x 0/4 20 mA current output</li> <li>6x operating relay</li> <li>or</li> <li>5x operating relay and</li> <li>1x fail safe relay</li> <li>1x Ethernet (optional)</li> <li>1x RS232 (optional)</li> </ul>
Operating voltage	20 253 V AC, 50/60 Hz, 20 253 V DC	20 253 V AC, 50/60 Hz, 20 253 V DC
Mounting	Front panel or wall mounting Carrier rail 35 x 7.5 acc. to EN 50022	Front panel or wall mounting Carrier rail 35 x 7.5 acc. to EN 50022
Display	Large digital and quasi-analogue indication	Graphic-capable clear text indication with background lighting
Approvals	ATEX, IEC, EAC (GOST), UKR Sepro, SIL2	ATEX, IEC, FM, CSA, EAC (GOST), UKR Sepro, SIL2
Benefit	<ul><li>Simple connection of sensor thanks to integrated power supply</li><li>Excellent visibility via large display</li></ul>	

# Signal conditioning instruments

	VEGAMET 624	VEGAMET 625	VEGASCAN 693
Application	Measured value indication, simple control functions as well as remote enquiry of measured values for one 4 20 mA/HART sensor	Measured value indication, simple control functions as well as remote enquiry of measured values for two HART sensors	Measured value indication and remote enquiry of measured value for up to 15 HART sensors
Input	1x 4 20 mA/HART sensor input	2x HART sensor input	15x HART sensor input
Hysteresis	Adjustable	Adjustable	-
Output	<ul> <li>3x 0/4 20 mA current output</li> <li>3x operating relay</li> <li>1x fail safe relay</li> <li>1x Ethernet (optional)</li> <li>1x RS232 (optional)</li> </ul>	<ul> <li>3x 0/4 20 mA current output</li> <li>3x operating relay</li> <li>1x fail safe relay</li> <li>1x Ethernet (optional)</li> <li>1x RS232 (optional)</li> </ul>	1x fail safe relay 1x Ethernet (optional) or 1x RS232 (optional)
Operating voltage	20 253 V AC, 50/60 Hz, 20 253 V DC	20 253 V AC, 50/60 Hz, 20 253 V DC	20 253 V AC, 50/60 Hz, 20 253 V DC
Mounting	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
Display	Graphic-capable clear text indication with background lighting	Graphic-capable clear text indication with background lighting	Graphic-capable clear text indication with background lighting
Approvals	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
Benefit	<ul> <li>Simple connection of sensor thanks to integrated power supply</li> <li>Versatile use through relay and current outputs as well as integrated web server</li> <li>Excellent visibility via large display</li> </ul>		

VEGATOR 111/112	VEGATOR 121/122
Transmission of NAMUR signals for level signalling	Transmission of 8/16 mA signals for level signalling
VEGATOR 111: single channel VEGATOR 112: double channel	VEGATOR 121: single channel VEGATOR 122: double channel
Fix	Fix
VEGATOR 111: 1x operating relay (SPDT), optional 1x fail safe relay output (SPDT) VEGATOR 112: 2x operating relay (SPDT)	VEGATOR 121: 1x operating relay (SPDT), optional 1x fail safe relay output (SPDT) VEGATOR 122: 2x operating relay (SPDT)
20 253 V AC/DC, 50/60 Hz	20 253 V AC/DC, 50/60 Hz
Carrier rail 35 x 7.5 acc. to EN 50022	Carrier rail 35 x 7.5 acc. to EN 50022
1x LED supply 1x LED switching signal per channel 1x LED false signal per channel	1x LED supply 1x LED switching signal per channel 1x LED false signal per channel
ATEX, IEC, EAC (GOST), Overfill protection Ship, SIL2, UL	n, ATEX, IEC, EAC (GOST), Overfill protection, Ship, SIL2, UL

Rapid implementation of simple control and regulatory functions
Increased operational reliability through line monitoring and test button
Easy installation via carrier rail

# Signal conditioning instruments

	VEGATOR 131/132	VEGATOR 141/142
Application	Signal conditioning instrument for conductive probes	Signal conditioning instrument for 4 20 mA signals for level detection
Input	VEGATOR 131: 1x conductive probes VEGATOR 132: 2x conductive probes	VEGATOR 141: single channel VEGATOR 142: double channel
Hysteresis	Adjustable (max. 200 kOhm)	Adjustable
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	20 253 V AC/DC, 50/60 Hz	20 253 V AC/DC, 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 supply 1x LED switching signal per channel 1x LED false signal per channel	1x LED supply 1x LED switching signal per channel 1x LED false signal per channel
Approvals	ATEX, IEC, Overfill protection	ATEX, IEC, EAC (GOST), Overfill protection, Ship, SIL2, UL
Benefit	<ul> <li>Rapid implementation of simple control and regulatory functions</li> <li>Increased operational reliability through line monitoring</li> <li>Easy installation via carrier rail</li> </ul>	

	VEGASTAB 690	GPRS/EDGE-ROUTER
Application	Voltage supply of two analogue sensors	For connection of signal conditioning instruments to the internet (router, modem or Ethernet Port)
Input	-	Signal conditioning instruments with Ethernet interface
Hysteresis	-	-
Output	2x 24 V DC (floating)	GPRS
Operating voltage	20 253 V AC, 50/60 Hz, 20 72 V DC	10 30 V DC
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	-
Approvals	-	-
Benefit	<ul> <li>Simple connection of two sensors via integrated and galvanically isolated power supplies</li> <li>High reliability through permanently short-circuit proof circuits</li> <li>Uninterruptible current measurement via interlock diode</li> </ul>	<ul> <li>Simple remote enquiry of measurement data and remote parameterization via standardized interfaces</li> <li>Simple setup and commissioning via combination of router, modem and Ethernet port(s)</li> </ul>