



VRTU 430

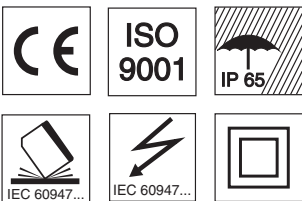
Ultrasonic distance sensors



60 ... 300 mm
200 ... 1300 mm



- Ideal for detection of levels of liquids, bulk materials, transparent media, ...
- Distance information does not depend on the surface properties
- All settings are adjustable
- Up to 10 devices can be synchronised via the SYNC input
- Start and end of switching range adjustable separately

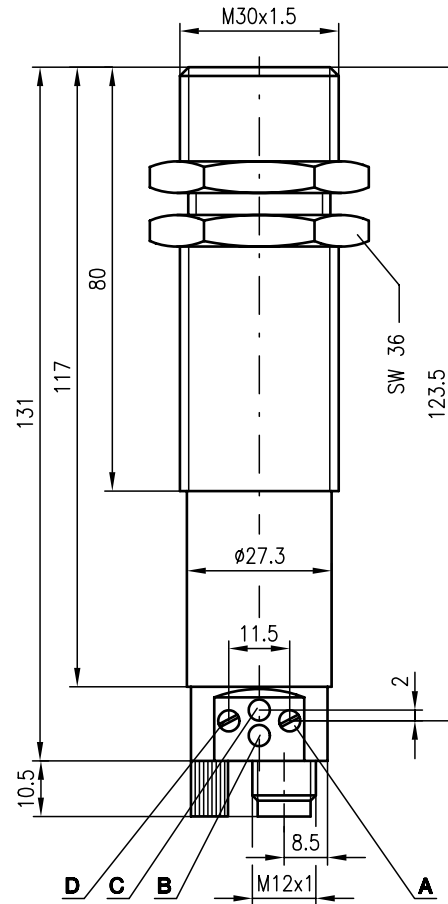


Accessories:

(available separately)

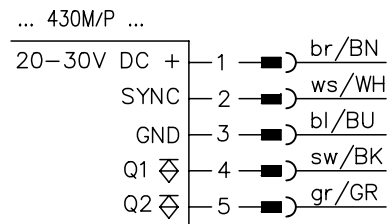
- Programming software "USDS-Config"
- PGU 01 (programming device)

Dimensioned drawing



- A End of switching range
- B Indicator diode Q2 only for ... 430M/P ...
- C Indicator diode Q1
- D Start of switching range

Electrical connection



We reserve the right to make changes • USDS_05e.fm



Specifications

	VRTU...-5110-300...	VRTU...-3110-1300...
Ultrasonic specifications		
Operating range ¹⁾	60 ... 300mm	200 ... 1300mm
Ultrasonic frequency	400kHz	200kHz
Opening angle	6°	
Resolution	≤ 1mm	≥ 1mm
Absolute measurement accuracy	± 1.5% of the measurement range	
Reproducibility	± 0.45mm	± 2mm
Timing		
Switching frequency	8Hz	4Hz
Response time	80ms	110ms
Delay before start-up	280ms	280ms
Switching hysteresis	10mm	10mm
Electrical data		
Operating voltage U _B	20 ... 30VDC (incl. ± 10% residual ripple)	
Residual ripple	± 10% of U _B	
Bias current	≤ 50mA (without load)	
Switching output	2 PNP transistors	
Function characteristics	switching in case of object recognition	
Output current	300mA	
Switching range adjustment	potentiometer 270°	
Indicators		
LED yellow	output activated	
LED yellow flashing	programming error	
Mechanical data		
Housing	metal/CuZn	
Weight	210g	
Connection type	M 12 connector, plastic, 5-pin	
Environmental data		
Ambient temp. (operation/storage)	-25°C ... +70°C/-40°C ... +85°C	
Protective circuit ²⁾	1, 2, 3	
VDE safety class ³⁾	II, all-insulated	
Protection class	IP 65	
Standards applied	IEC 60947-5-2	
Fitting position	any	
Explosion protection	ex zone 2/zone 11/temperature class T5	

1) For the complete temperature range, measured object ≥ 10x10mm²

2) 1=short-circuit and overload protection, 2=polarity reversal protection, 3=wire break and inductive protection

3) Rating voltage 250VAC

Tables

Diagrams

Order guide

Designation	Part No.
VRTU 430M/P-5110-300-S12	500 36261
VRTU 430M/P-3110-1300-S12	500 36262

Remarks

- Synchronisation: mutual interference is excluded by connecting the sensors with the SYNC input.
- Multiplex: Achieved by parameterisation of the sensors using the "USDS-Config" software.