Digital display unit DPA

Easy and clear display and analysis,
for display, processing, implementation and galvanic
separation of electric standard signals - even from hazardous areas

Description

The digital display unit DPA is designed for front panel mounting or on-site assembly or for mounting on a standard DIN rail. The electrical standard signal in the range of 0-10V or 0 to 20 mA is detected by the evaluatio , adjusted in accordance with the programmed settings and is transmitted and electrically isolated on the output signal 0 .. 10V or 0/4...20mA. Due to the possible entry of 40 breakpoints also non-linear input signals, eg of horizontal cylindrical tanks can be linearized for further processing. Up to 4 programmable relay switching points can be assigned to the input signal.

The modern transmitter has extensive diagnostic functions for system analysis and still allows easy setup and operation through the clear navigation. The digital process meter DPA is also suitable for the detection and measurement of flow rates and currents. The mathematical formulas for this are already stored in the device.

The TFT color display provides an excellent representation of the measured values and easy readability. Intelligent Data management is made possible with the digital display unit DPA by the Bluetooth interface and a built-in data logger function with a time stamp to record up to 500,000 readings.



Application

- TFT display
- Analog output (0) 4-20 mA and 4 switching outputs
- Accuracy of ≤ 0,2%
- For hazardous areas

Your benefits

- Simple commissioning thanks to *intuitive user guidance*
- Large display - values of long distance readable
- *Data logger function* for recording of measured values
- Excellent display of measured values
- *Clear text operator guidance*



Specials



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Technical data

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Supply voltage:	Type A / B / D: 18..36V DC, reverse polarity protected Type S / T / U: 186..253V_{AC}
Power consumption:	Type A/B/D: ≤ 5 W Type S/T/U: ≤ 20 VA
Isolation voltage:	Type A/B/D: Auxiliary power 1kV AC; Relay outputs 3kV AC; Input analogue/digital – output analogue 500V DC Type S/T/U: Auxiliary power 3kV AC; Relay outputs 3kV AC; Input analogue/digital – output analogue 500V DC
Input Signal I – InA1:	Signal 0...20mA: 0mA ... 21mA, max. 30mA Signal 4...20mA: 3,9mA ... 21mA, max. 30mA
Input Signal U – InA1:	Signal 0...10V: 0 ... 10,5V, max. 15V (UIn max ≤ 30V)
Digital input – InD1...4 (IEC 61131-2):	Signal low – logic 0: -3 ... 5V Signal high – logic 1: -12 ... 30V (UIn max ≤ 36V)
Transmitter supply:	0...28mA, max. ≤ 35mA, current limited/short circuit proof
Output Signal I – OutA1:	Signal 0...20mA: 0mA ... 20,5mA/22mA Signal 4...20mA: 3,6/3,8mA ... 20,5mA/22mA
Output Signal U – OutA1	Signal 0...10V: 0 ... 10,5V, max. 11V
Switching output	
Function:	Potential-free changeover contact
Maximum switching power AC:	253VAC – 6A – 1500VA (ohmic load) / 300VA (cos φ ≥ 0,7)
Maximum switching power DC:	30VDC – 6A – 180W 110VDC – 0,2A – 22W 220VDC – 0,12A – 26,4W
Response time tOn/Off:	≤ 20ms (td = 0s)
Bluetooth interface	
Version	2.0 Full Speed
Function	Host
Jack socket	USB 2.0-A
Measurement accuracy	
Characteristic deviation:	Input U/I – InA1: ≤ ±0,05% FS Output U/I – OutA1: ≤ ±0,05% FS
Temperature deviation:	Input U/I – InA1: ≤ ±0,1% FS / 10K Output U/I – OutA1: ≤ ±0,1% FS / 10K
Materials	
DIN rail housing:	PC / PES / CrNi-steel / PA / CR-NBR
Wall-mount housing:	PC / PES / CrNi-steel / PA / CR-NBR
Front panel housing:	PPE / PES / steel zinc-coated / CrNi-steel / PA / NBR-EPDM
Environmental conditions	
Ambient temperature:	-20 ° C. .. +50 ° C Expansion Backlight LCD ≤ 85% >> -20°C...+60°C
Protection wall mounting housing / DIN rail housing:	IP65 EN/IEC 60529
Protection front panel housing:	front IP54 EN/IEC 60529 rear IP20 EN/IEC 60529 Electronic extras type 2 – increased protection class front panel enclosure Front side IP65 (EN/IEC 60529)
ATEX:	ATEX II (1) G [Ex ia Ga] IIC resp. ATEX II (1) D [Ex ia Da] IIIC

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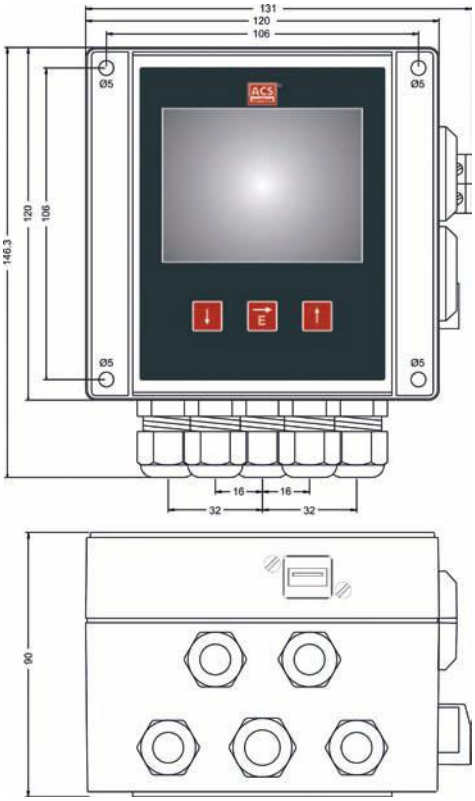
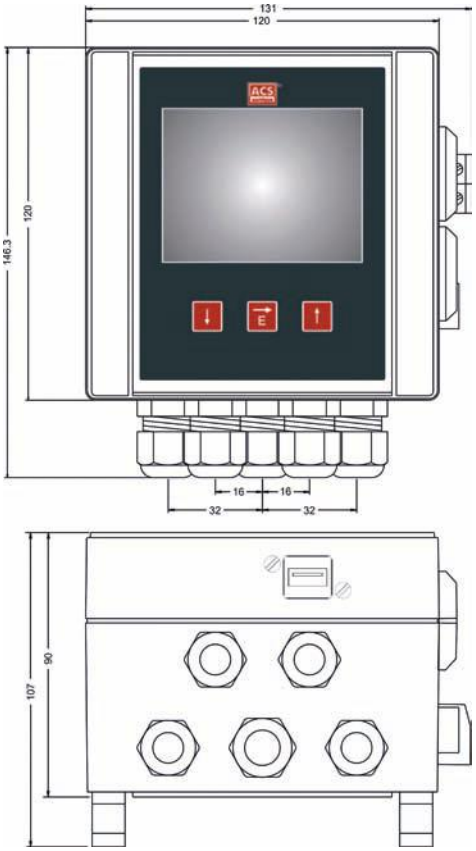
Dimension drawings

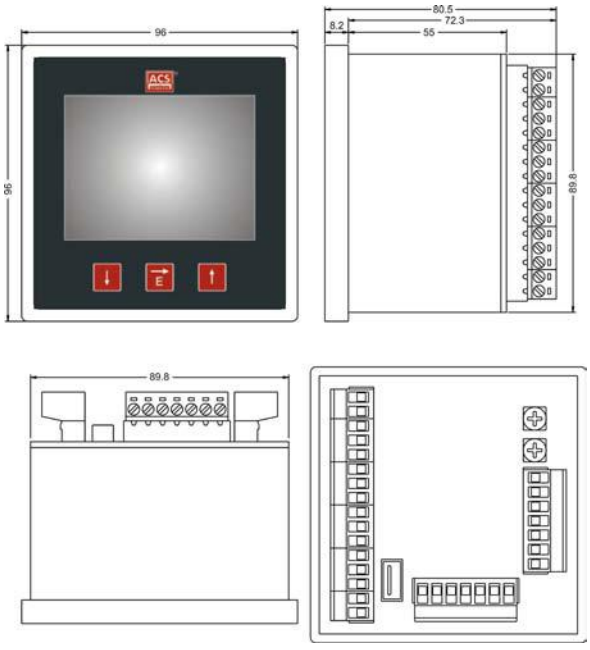
DIN rail housing
Type F



Connection housing
Wall mounted housing
Type P - Elektronik Typ S / T / U



Front panel enclosure
Type M





Order Code

Electronic – input
1 1x 0/4...20mA - 0...10V, transmitter power supply

Approval
0 Standard
X ATEX II (1) G / ATEX II (1) D

Enclosure type
F Field enclosure
M Front panel enclosure
P DIN-rail enclosure

Electronic – supply / output
A 18...36V DC / 1x 0/4...20mA - 0...10V
B 18...36V DC / 1x 0/4...20mA - 0...10V, 2x relay, 2x digital input
D 18...36V DC / 1x 0/4...20mA - 0...10V, 4x relay, 4x digital input
S 186...253V AC / 1x 0/4...20mA - 0...10V
T 186...253V AC / 1x 0/4...20mA - 0...10V, 2x relay, 2x digital input
U 186...253V AC / 1x 0/4...20mA - 0...10V, 4x relay, 4x digital input

Electronic - function
0 USB-Interface
1 USB+Bluetooth-Interface
2 USB-Interface / Data logger with time stamp, battery powered
3 USB+Bluetooth-Interface / Data logger with time stamp, battery powered
Y others

Electronic - extras
0 Standard
1 USB device jack – Enclosure type F / P
2 Increased protection class IP65 – Enclosure type M

S Standard

Order code

DPA	1						S	

Stand 04/2017

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