



- signal conditioner with micro processor for continuous level measurement
- needs only 40% of the measurement range for calibration
- scaling selectable
- approvals for Ex-area Zone 0 and as part of an overspill prevention according to VbF and WHG
- 99 points vessel linearization, free adjustable

PLM signal conditioner, WHG and VbF
HR-178500/D

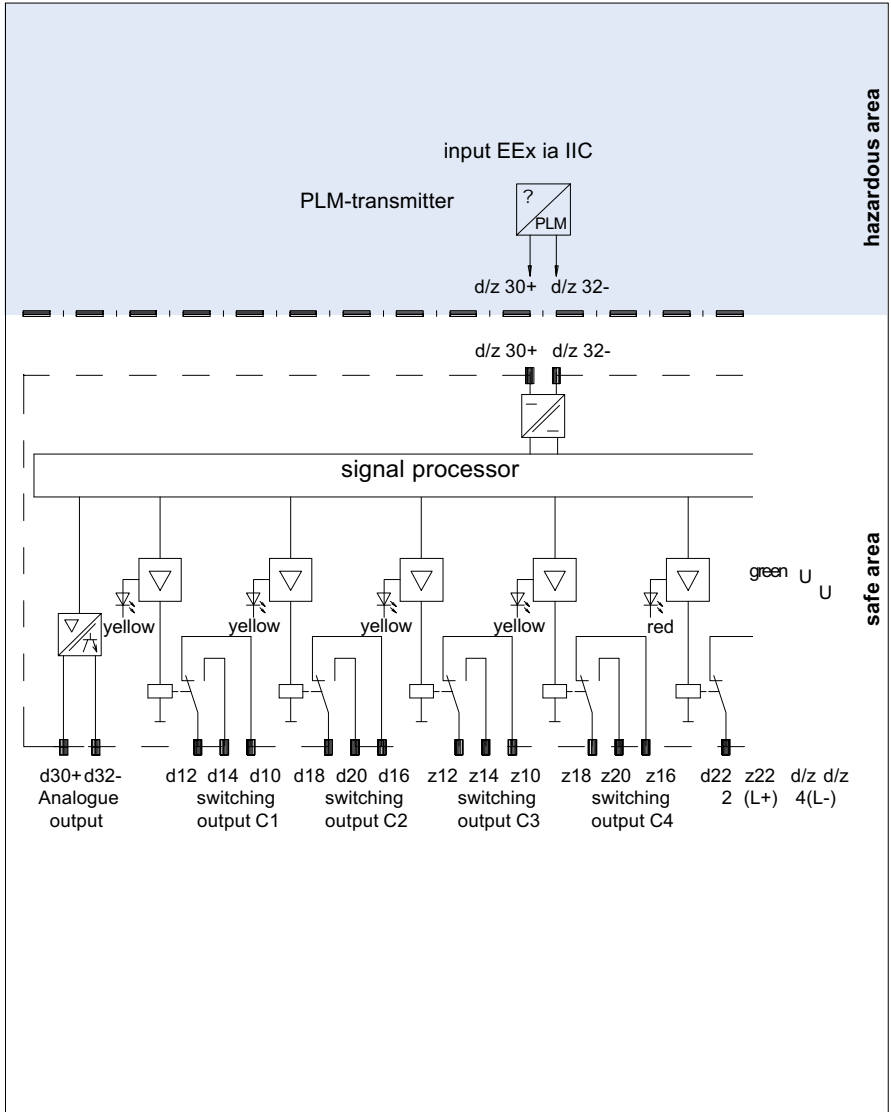
Function principle

The signal conditioner provides the DC 12 V supply to the sensor or converter. The converter converts the input signal that is proportional to the level (C, R, p) into pulse length modulated current pulses.

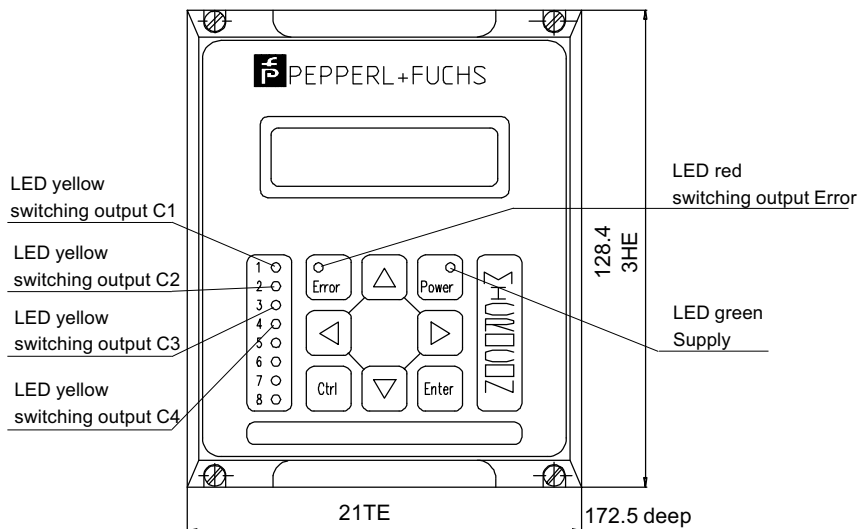
The high resolution digital evaluation switches 4 isolated changeover contacts at their threshold and provides a 0/4...20 mA signal for a continuous level measurement signal (0...100%). The input and output functions are displayed in a display with background light. A software controlled user support helps the user to calibrate the device.

The calibration of the input signal is proportional to the level height. It can be converted into a volume information by using the vessel linearization.

After input and confirmation the parameters are held automatically in an EEPROM that keeps the information during a power failure without a backup battery.



Front



Date of issue 26.06.97



Technical data	
Approvals / Certifications	PTB-Nr. Ex-92.C.2079 X
Power supply Nominal voltage Power consumption	Connections d/z 2(L+), d/z 4(L-) DC 24 V \pm 30% ca. 6 W
Input Input signal	Connections d/z 30+, d/z 32- PLM (intrinsically safe)
Certificate of Conformity Peak Values Voltage U_o Current I_o	16.5 V 85 mA
Allowable circuit values Ignition protection class, category Explosion group max. external capacitance max. external inductance	[EEx ia] IIC IIC IIB IIB 110 nF 150 nF 382 nF 711 nF 1 mH 0.5 mH 5 mH 1 mH
Analogue output / A.Out Current signal Load Resolution	Connections d30+, d32- without output signal / 0 ... 20 / 4 ... 20 mA, programmable, pot.-separated, max 20.5 mA 700 Ω 80 μ A
Switching outputs / C1 ... C4 max. switching voltage max. switching current max. breaking capacity Permanent limiting current min. isolation voltage	Potential free changeovers Connections: C1 (d10, d12, d14); C2 (d16, d18, d20); C3 (z10, z12, z14); C4 (z16, z18, z20) DC / AC 35 V 0.5 A 15 W / VA 0.5 A 500 V
Indicators Power supply Switching outputs / C1...C4 Switching output / Error Measured variable	LED, green LED, yellow LED, red 2-row alphanumerical LC-display
Calibration	via keyboard (see operating manual)
Switching output / Error	Closed circuit current principle: opens with faults, connections d22, z22
Mechanics Connection Weight	2x plug rail DIN 41 612 design F (solder connection) 32- pins (d,z) supplied with device ca. 1500 g
Protection class acc. to DIN 40 050	IP 20
Plug facilities Temperature	0 °C ... + 50 °C (273 K ... 323 K)
Accessories HR-916502 HR-916501	Power pack AC 230 V / DC 24 V Mounting kit for panel mounting

Date of issue 26.06.97