



Warsaw

# INTERFACE UNIT

# MDPL1

for connecting of the DEX/P head to any  
measurement system  
*series U1*

## DESTINATION

Interface unit MDPL1 is a device used for connecting the DEX/P type detector head (make alterations: P6..., P4...) manufactured by GAZEX to other manufacturers' measurement systems equipped with the standard 4-20 mA current loop input with current emission.

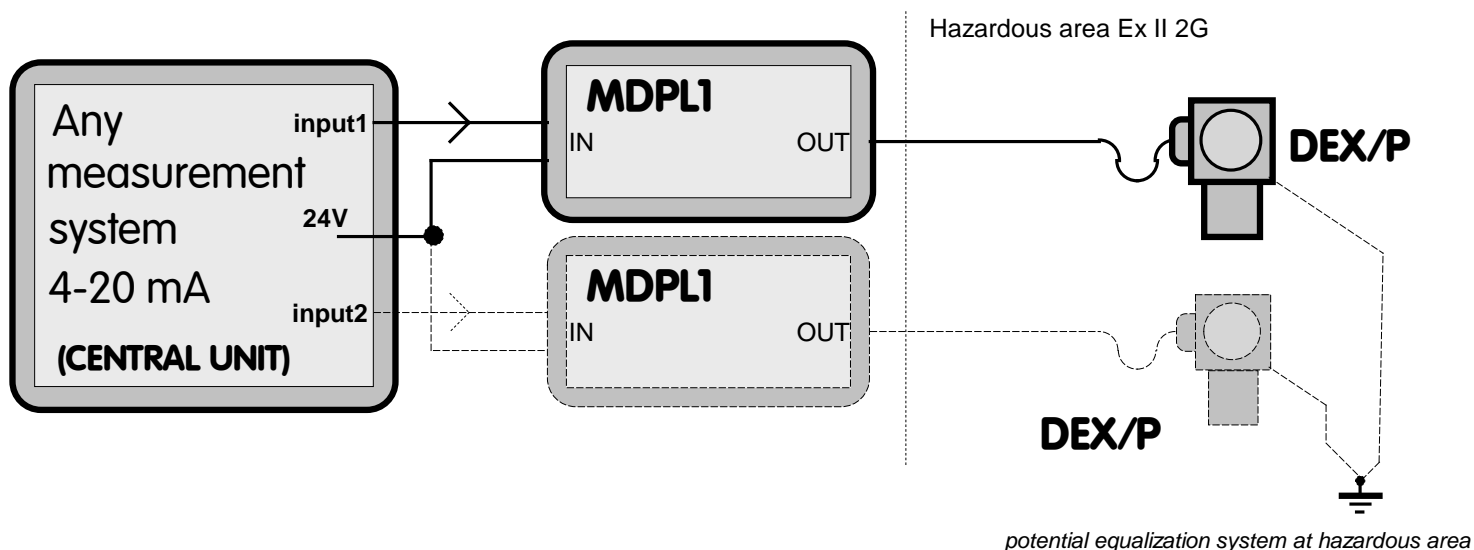
The device limits the power and the voltage supplied to DEX/P detector head up to the limit values allowed in the ATEX Directive EC-Type Examination Certificate, i.e.  $P_i = 2 \text{ W}$ ,  $U_i = 15 \text{ V DC}$ .



## FEATURES:

- the possibility of connecting one DEX/P head to one measurement system's input
- 4-20 mA current loop standard compatible with system with current emission
- current loop line error indication ( $I_o \leq 0,5\text{mA}$  or  $I_o \geq 21\text{mA}$ )
- 24 V DC supply voltage
- watertight, robust metallic enclosure
- very simple and fast connection/installation

## CONNECTION BLOCK DIAGRAM



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## UNIT DESCRIPTION

The sight after the unit contact compartment cover removing.

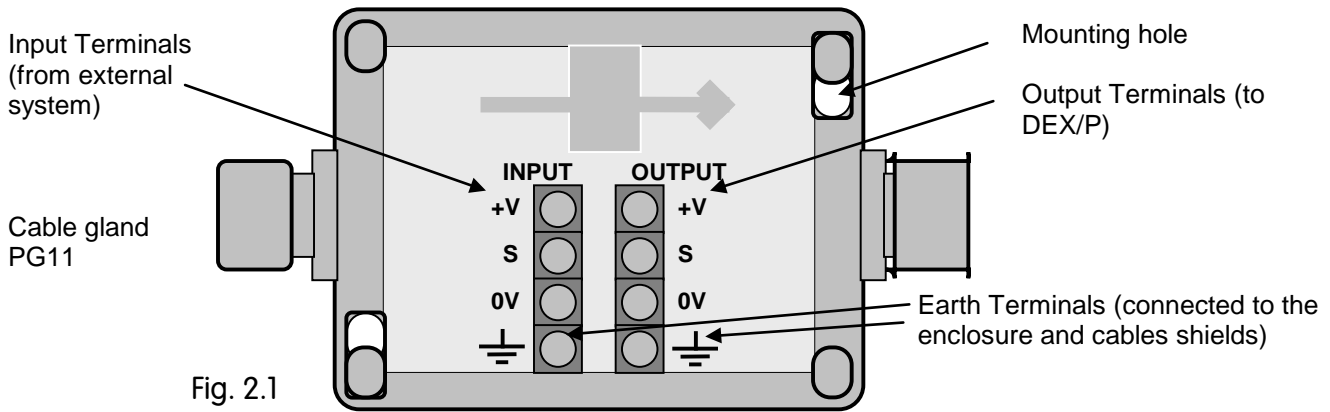


Fig. 2.1

## TECHNICAL SPECIFICATION

Type	MDPL1
INPUT voltage supplied by the Central Unit	contacts INPUT +V, 0V: 15 ÷ 30V DC contacts INPUT S, 0V: 15 ÷ 30V DC
INPUT current consumption	contacts INPUT +V, 0V: max 200mA contacts INPUT S, 0V: max 25mA
OUTPUT voltage	contacts OUTPUT +V, 0V: 9 V DC (max 180mA) contacts OUTPUT S, 0V: 10V DC (max 27mA)
OUTPUT current consumption	contacts OUTPUT +V, 0V: max 180mA contacts OUTPUT S, 0V: max 27mA
Ambient Temperature	-20°C up to +50°C; enclosure surface temperature rise relatively to the ambient = max 25°C
Error indication	on line S: $I_o \leq 0,5\text{mA}$ or $I_o \geq 21\text{mA}$ (DEX/P detector head error or connection line error)
Terminal contacts	screw type, 2 x 4, max 1,5 mm <sup>2</sup>
Detector head connection cable	any individual wire resistance $\leq 5 \Omega$ (for DEX/P head with catalitic or infra-red sensor), $\leq 25 \Omega$ (for DEX/P head with electrochemical sensor)
Dimensions / weight	160 x 66 x 49 mm, width x height x depth (with cable glands) / approx. 0,15 kg
Enclosure	aluminum alloy, lacquered, IP54, installation orientation - any

## INSTALLATION - WIRING

**Installation conditions:** Electrical parameters of the output circuits of the device (Central Unit) supplying the detector head DEX/P indirectly via the interface unit MDPL1 and the connection between MDPL1 unit output and the detector head should comply with appropriate requirements of the European Standard EN 60079-14:2014 „Explosive atmospheres – Part 14: Electrical installations design, selection and erection”.

When shielded cable is used – please refer to Fig.4.2

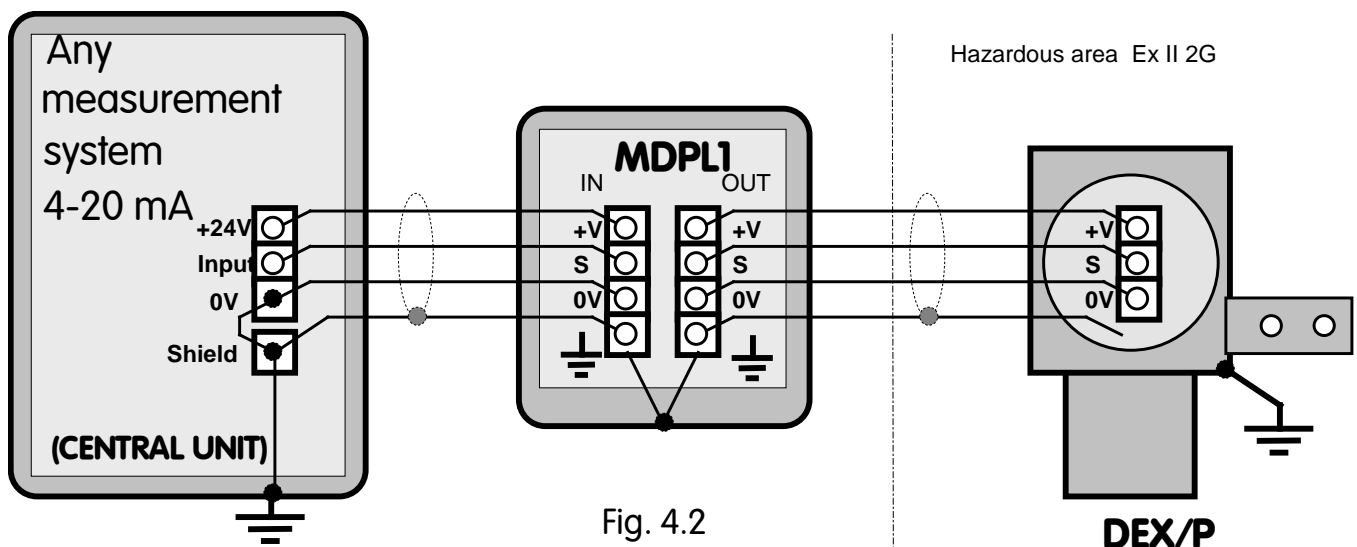


Fig. 4.2