

# DIWICON-L

## DW 4324 L

### LEAK DETECTION SIGNAL-PROCESSING UNIT

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The DW 4324 L signal-processing unit provides security for pipeline transport together with the high sensitivity and ultra fast DW 115 GEx pressure transmitter. The DW 4324 L has two analog inputs through which it polls the DW 115 GEx pressure transmitters installed on the pipeline. The DW 4324 L connects to other network devices (e.g. switch) via an Ethernet port.

#### FEATURES

- Sensing and logging of pressure variations
- Handles two DW 115 GEx leak detection pressure transmitters
- Event oriented communication

#### SPECIAL CHARACTERISTICS

- Determines the absolute pressure value from the average of two signals
- Synchronized measurement
- Adjustable sampling (0-5200/sec)

#### INDUSTRIAL DESIGN

- Operational temperature range -30°C to +60°C
- Protection: IP40 (IEC 529 conform)
- Omega track mounting

#### APPLICATION

Every year pipeline operators lose millions of Euros because of the environmental damage and loss of product caused by the aging of pipelines and by illegal drilling, as well as continuous protection and supplementary costs. The DW 4324 L signal-processing unit and the DW 115 GEx high sensitivity pressure transmitter together determine, with high precision, the locations of leaks and pipe drilling.



## TECHNICAL DATA

### GENERAL INFORMATION

Power Supply:	24 VDC
Consumption:	90 mA
Operational temperature:	-30°C to +60°C
Storage temperature:	-40°C to +85°C
Humidity:	5% to 95% RH
Vibration:	2.1g - 15 - 150 Hz ±2.5 mm deviation
Dimensions (L x W x H):	220 x 120 x 90 mm
Protection:	IP40 IEC529 conform
Analog inputs:	2

### INPUT AMPLITUDE

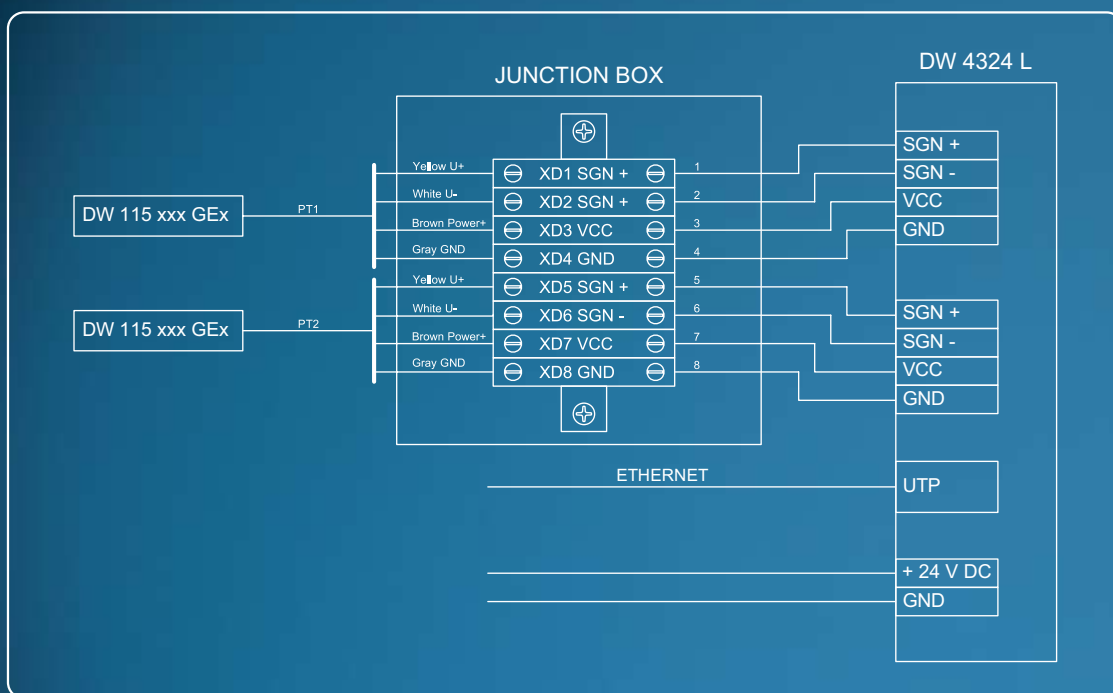
$R_{in}$ :	10 M $\Omega$
$U_{in}$ :	1.65 V $\pm$ 0.825 V
$U_{in(min)}$ :	2.475 V
$U_{in(max)}$ :	0.825 V
Symmetrical Surge Protection:	Yes

### POWER TERMINAL

Type:	MCI 1.5-3.81
Manufacturer:	Phoenix Contact

### COMMUNICATION PORT

Type:	RJ 45, 10 BaseT Standard UTP
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### OPERATION

The field DW 115 GEx pressure transmitter measures pressure values on the technological pipeline. The quick-reaction pressure gauge devices are capable of detecting very rapid pressure variations.

The DW 115 GEx forwards the measured values to the DW 4324 L leak-monitoring unit. The DW 4324 L signal processor takes 5000 samples per second from the input port and statistically analyzes the measured values. The intelligence stored in the memory of the signal-processing unit decides whether to send the given changes to the central server.

At preconfigured intervals, the DW 4324 L sends the current pressure value to the center, but when it notices events or changes, the data transfer is continuous and immediate. The DW 4324 L assigns timestamps to the pressure values it sends. The timestamp data is provided by the DW 712 UTC Timeserver, or another standard Timeserver.

The data receiving programs are run on the central server (DW 9000) which also performs data storage. The application running on the central server (DW 9220) provides an independent working interface for the display of measured values in the field. This interface can be easily integrated into any SCADA application.

# CASON

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