

DW 55 CAT

Cathodic potential coupler for DW 628 GEx

The device is used to monitor cathodic protection potential at gas stations.

DW 55 CAT is the accessory of the intelligent on site DW 628 GEx device used for automatic data gathering and transmission. It ensures a high input impedance and galvanic insulation necessary for the measurement of cathodic protection potential.

DW 55 CAT is typically used to monitor cathodic protection potential at the input and output of gas measurement, adjustment and delivery stations.

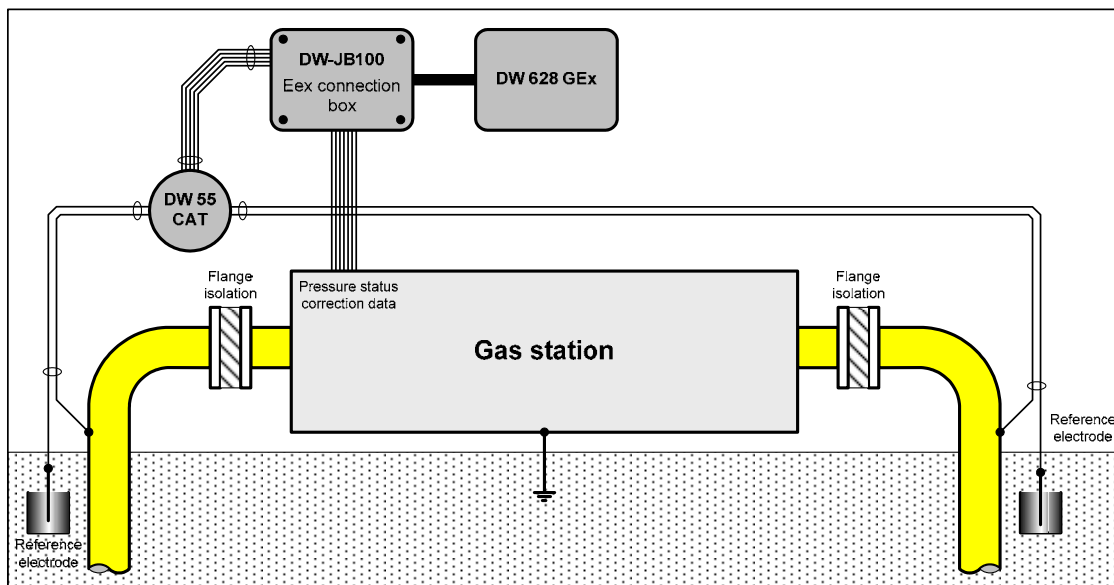
The potential data gathered at stations together with data from the cathodic protection stations and the potential at reference points provide a complete picture about the status of protection of the whole system.

Data collected online replace periodic manual measurements and reduce the operating costs of the cathodic protection system.

Data about cathodic potential is collected with maximum efficiency because the device uses the already installed data and communications infrastructure to monitor the gas distribution system.

Besides automated reporting, data about cathodic potential is used for the automatic optimized control of the cathodic protection stations.

The system does not need a separate power supply. It is supplied by the batteries of the DW 628 GEx device.



TECHNICAL DATA

Supply voltage:	5V to 40 V
Power consumption:	2,5 mA
Power supply:	built-in
Conversion precision:	+/- 0,1 %
Operating temperature:	-25°C to +60°C
Humidity:	0% to 100% RH
Protection:	IP 66
Housing:	Pressure cast aluminium

INPUT

Symmetrical input potential:	3 pcs.
Symm. over voltage protection at input:	built-in
R_{in} :	10 MOhm
U_{in} :	0 to 2,5 V
U_{max} :	+/- 115 V

OUTPUT

Asymmetric output potential:	3 pcs.
R_{out} :	1 KOhm

CONNECTIONS

1. Input potential:	CP 1
1. Reference potential:	REF 1
2. Input potential:	CP 2
2. Reference potential:	REF 2
3. Input potential:	CP 3
3. Reference potential:	REF 3
Supply voltage:	+VCC
Ground:	GND
1. Output potential:	OUT 1
2. Output potential:	OUT 2
3. Output potential:	OUT 3

EQUIVALENT DIAGRAM

The device is made up of three sample and hold circuits with galvanic isolation.

The input potentials connected at CP1/REF1 – CP2/REF3 are transferred to the asymmetric output 10 seconds after power is supplied to the device.

The circuit provides perfect galvanic isolation between the input and output channels. The input channels are isolated from each other.

Supply voltage is applied discontinuously for 30 seconds every 8 hours.

OUT1-3 output channels are connected to the analog input of the DW 628 GEx device.

at the moving measuring points tacting is done by way of GPS based time synchronizing.

