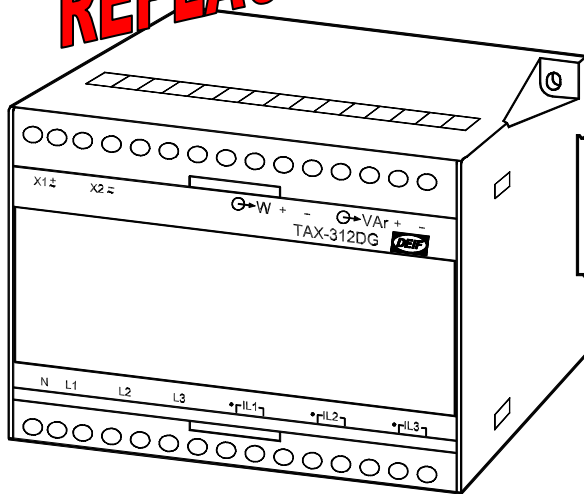


**Dual output power transducer type TAX-312DG/1**

4189340215D (UK)

**REPLACEMENT**

- *Combined Watt and Var transducer*
- *Voltage up to 690V*
- *35 mm DIN rail or base mounting*



DEIF A/S  
Frisenborgvej 33, DK-7800 Skive  
Denmark

Tel.: (+45) 9614 9614  
Fax: (+45) 9614 9615  
E-mail: [deif@deif.com](mailto:deif@deif.com)



## 1. Description

TAX-312DG/1 is a power transducer with two analogue outputs for measurement of Watt and Var.

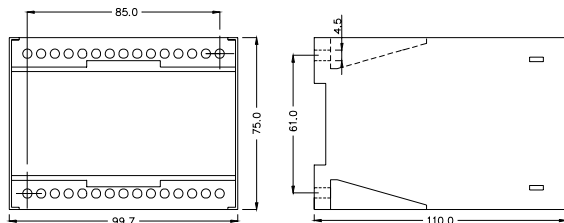
## 2. Label

The transducer is provided with a label with the following data:

	COUPL W/VAr		1W4	1VAr4	123456.789	DEIF's order ack. no. To be stated when contacting DEIF
Measuring range The ratio between W and VAr is always 1:2	RANGE W	0...1MW				Condition of external voltage transformer
	RANGE VAr	0...0.5MVar				
Mounted voltage module	RATIO VT CT	10kV / 100V	100 / 5A			Condition of external current transformer
Secondary input power	MODULE V I	57.7V	3A			Mounted current module
	INPUT W	500W				
	INPUT VAr	250VAr				
Max. output load (current)	OUTPUT W VAr	4...20mA	0...10V			Min. output load (voltage)
Auxiliary voltage	LOAD W VAr	<500 Ω	>500 Ω			
	SUPPLY	110V DC				Distributor's ID
						Other information

**Note 1:** For coupling 1VAr and 1VAr4 the frequency has to be exactly 50Hz to ensure that the transducer observes class 1.0. Other frequencies than 50Hz are stated in the section "Other Information".

## 3. Mounting instructions



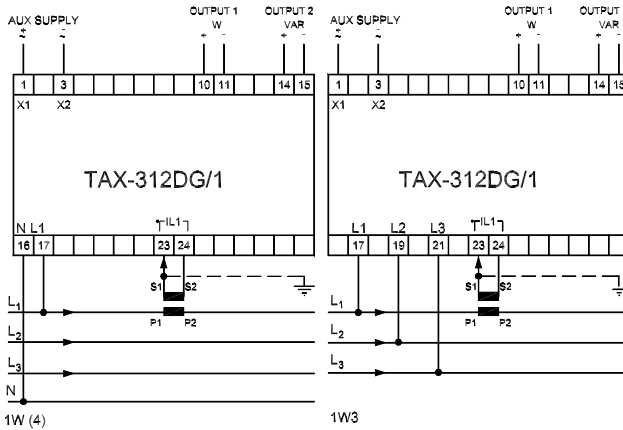
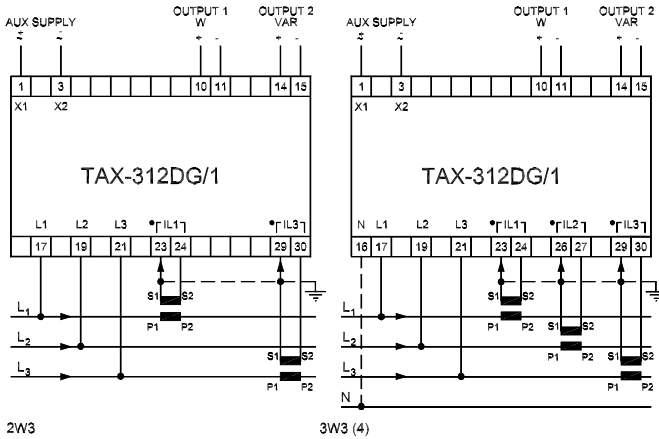
TAX-312DG/1 is designed for panel mounting, being mounted on a 35 mm DIN rail, or by means of two 4-mm screws.

Weight: Approx. 0.650 kg

The design of the transducer makes mounting of it close to similar equipment possible, however make sure there are min. 50 mm between the top and bottom of this transducer and other equipment.

The DIN rail must always be placed horizontally when several transducers are mounted on the same rail.

## 4. Connection diagram



A 2A fuse may protect all voltage inputs.

The transducer is protected against ESD (electrostatic electricity), and further special protection against this during the mounting of the transducer is not necessary.



The voltage inputs are connected as follows, if the current transformers are placed in other phases than indicated in the above diagram:

**2W3** (please see note 2 at the bottom of this page):

External current transformer	Connect		
- connected to L1 (23 + 24) and L2 (29 + 30)	L1 to term. no. 17	L3 to term. no. 19	L2 to term. no. 21
- connected to L2 (23 + 24) and L3 (39 + 30)	L2 to term. no. 17	L1 to term. no. 19	L3 to term. no. 21

Couplings 1W and 1W4: Connect terminal no. 17 to the phase to which the external current transformer is connected.

**1W3:**

External current transformer	Connect		
- connected to L2	L2 to term. no. 17	L3 to term. no. 19	L1 to term. no. 21
- connected to L3	L3 to term. no. 17	L1 to term. no. 19	L2 to term. no. 21

## 5. Technical specifications

Overload, currents:	4 x $I_n$ , continuously 20 x $I_n$ for 10 s (max. 75A) 80 x $I_n$ for 1 s (max. 300A)
Load:	Max. 0.5VA per phase
Overload, voltages:	1.2 x $U_n$ , continuously, 2 x $U_n$ for 10 s
Load:	2k $\Omega$ /V
Frequency range:	40...45...65...70Hz Please note: Coupling 1Var 50Hz or 60Hz according to label
Outputs:	2 analogue outputs, referring to mutual ground
Output load:	Current: Max. 10V Voltage: Max. 20mA
Ambient temperature:	-10...55°C (nominal) -25...70°C (operating) -40...70°C (storage)
Response time/ripple:	<150 ms/1%pp
Galv. separation:	Between inputs, outputs and aux. supply: 4000V-50Hz-1 min.
Consumption:	(Aux. supply) 3.5VA/2W

**Note 2:**

Very important information:  
This will result in a negative output from output 2 (VAR).  
Do not cross connect the output 2 if output 1 and 2 are connected to the same potential (mutual ground).  
Also please notice that live zero is not possible (4...20mA).