

TYPE CERTIFICATE

TYPE TMF-210DG/2 MAINS FREQUENCY TRANSDUCER
for DIN rail mounting

TECHNICAL SPECIFICATIONS

*	MEASURING RANGE	$f_{nom} \pm 3\text{Hz}, \pm 5\text{Hz}$ or $\pm 10\text{Hz}$
*	MEASURING VOLTAGE	57.7...440V AC $\pm 20\%$ ($\leq 0.5\text{VA}$)
*	MEAS. FREQUENCY	f_{nom} : 50Hz, 55Hz, 60Hz
*	OUTPUT	(0..100%) 0..1mA, 0..5mA, 0..10mA, 0..20mA, 0..1V, 0..10V (20..100%) 0.2..1mA, 1..5mA, 2..10mA, 4..20mA, 0.2..1V, 2..10V (-100%..0..+100%) -1..0..+1mA, -5..0..+5mA, -10..0..+10mA, -20..0..+20mA, -1..0..+1V, -10..0..+10V
*	AUX. VOLTAGE	57.7-63.5-100-110-120-127-220-230-240-380-415-440V AC $\pm 20\%$ ($\leq 4\text{VA}$) 24-48-110-220V DC -25/+30% ($\leq 2\text{W}$)
*	ACCURACY	Class 0.2 of f_{max} (10...15...30...55 °C) to IEC 688

TYPE TEST SPECIFICATIONS

INSULATION	500V DC, > 100 M Ω	<u>TESTED ACCORDING TO:</u> GL, DNV and LR
VIBRATION	3..13.2Hz: 3mm 13.2..100Hz: 1.0 g	Class A, DNV Test 1, GL and LR
SHOCK	6 attempts with 15 g (in 3 directions)	IEC68-2-27, test: Ea
CLIMATE	Class HSE	DIN 40040
PROTECTION	Case: IP53 Terminals: IP20	IEC 529 and EN 60529
TEMPERATURE	-10... +55 °C (nominal) -25... +70 °C (operating) -40... +70 °C (storage)	GL, DNV and LR
TEMP. COEFFICIENT	Typ. 0.05% per 10 °C, max. 0.1% per 10 °C	
GALVANIC SEPARATION	2.2kV - 50Hz - 1 min. All circuits mutually	En 61010-1
EMC	Immunity	SS4361503 - PL4 IEC 255-4 - class 3 EN 50082-1/2
	Emission	EN 50081-1/2

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*) Tested on all units according to specifications.
Remaining specifications are tested regularly by test sampling.