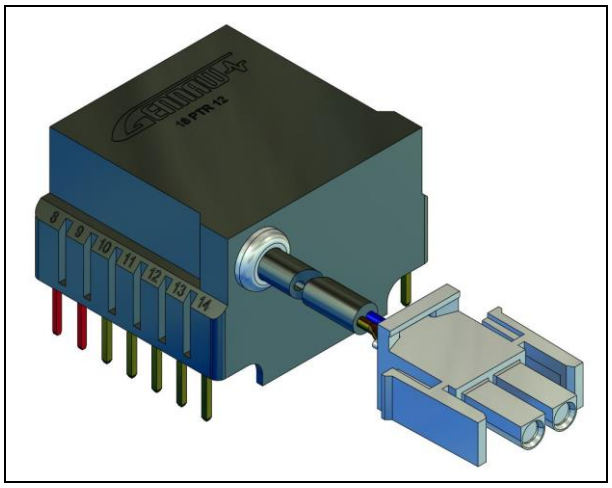
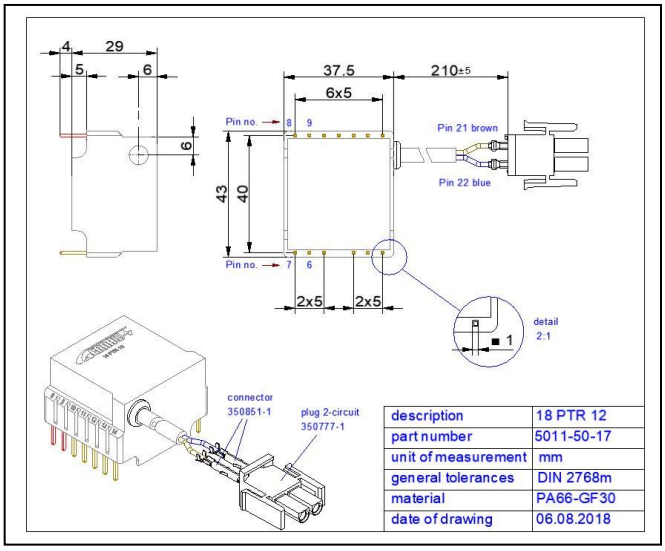
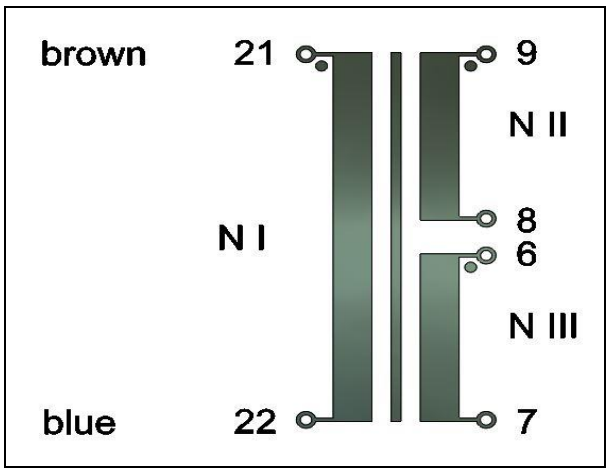
Pulse Drive Transformer 18 W

18 PTR 12 D18 P00

$V_{In,nom}$ = 12 V $V_{Out\ 1,2}$ = 18 V







High Switching Frequency Ferrite Pulse Drive Transformer

f = 50 kHz – 100 kHz

Vin	N_I	NII	NIII
12V	10	16	16
Vo1, Vo2		18V	
Io1, Io2		0.5A	0.5A
Po,nom		18W	
Voltage x Time Area ∫Vin dt		≥ 375µVs	
Operating temperature range		- 50°C to + 85°C	
Storage temperature range		- 50°C to + 100°C	

Design acc. ISO 9001: 2015

Input to Output Isolated: 10.2kV rms 1minute type test

High partial discharge voltage withstand

Low coupling capacitance input || output < 50pF

Low stray inductance: < 1% L_{nom}

All transformers piece unit tested at factory in Karlsbad Germany

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SYMBOL	PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
INPUT, OUTPUT						
V_{in}	Input voltage		10	12	14	V
f_{sw}	Switching frequency		40	60	100	kHz
I_{in}	Input current	@ 40 kHz ≤ f_{sw} ≤ 100kHz				
L_I	Primary inductance	f = 10kHz measurement frequency	335	490	610	µH
L_{II}	Secondary inductance		900	1250	1600	µH
L_{III}	Secondary inductance		900	1250	1600	µH
$R_{Cu,1}$			140			mΩ
$R_{Cu2,3}$			320			mΩ
$C_{k\,I}$ to $C_{k\,II,\,III}$				42	50	pF
ISOLATION						
	1minute @ type test		10.2			kV_{eff}
	Ramp 2s - 6s - 2s @ piece unit test					
	Input || Output 1, Output 2			10.2		kV_{eff}
	Output 1 | Output 2		500			V_{eff}
PROTECTION						
	Housing potted, plastic cover	IP 52				
Connecting	Input	Strip lines, 2 wires		0.75		mm²
	Output 1, 2	Pin diameter	1.0			mm
Weight				80	85	g

AMBIENT CONDITIONS

$T_{Amb\,op}$	Operating temperature range	EN 50155 2016 class Tx 10 minutes (+ 85°C)	- 50 + 70		+ 85 + 85	°C °C
$T_{Storage}$	Storage temperature range		- 50		+ 100	°C
	Cooling		Free convection			
	Humidity	EN 50155, IEC 60571	75% averaged per year, 95% 30 days			
	Vibration / Shock	IEC 61373, IEC 68 – 2 - 27 Kat. I: 3 Shocks each Axis	50 m / s² , 30 ms			

Pin Assign

Primary N_I			Remark
Pin 21	Strip line brown	● Begin winding	
Pin 22	Strip line blue	End winding	
Secondary N_{II}			
Pin 9	Solder pin	● Begin winding	
Pin 8	Solder pin	End winding	
Secondary N_{III}			
Pin 6	Solder pin	● Begin winding	
Pin 7	Solder pin	End winding	