

# Measuring Devices

7KT1 16

E-counters, 3-phase, instabus KNX EIB

## Technical specifications

				7KT1 162	7KT1 165
<b>Supply</b>					
Rated control voltage $U_e$		V AC		230	
Operating range $U_e$				0.80 ... 1.20	
Rated frequency		Hz		50	
Operating frequency range		Hz		45 ... 65	
Power consumption	per phase	VA		0.8	
<b>Measuring inputs</b>					
Connection type			direct		transformer
Voltage		V		400	
Operating range voltage		V		320 ... 480	
Current		A		63	5
Operating range current	direct connection	A		0.005 ... 63	
	transformer connection	A			0.005 ... 6
Minimum operational current		mA		5	
Current factor	of transformer, input in full digits	FAI		0 ... 255	
Frequency		Hz		50	
Operating frequency range	intermodulation distortion $\leq 3\%$ ; symmetric sinus curve	Hz		45 ... 65	
<b>Overload capability</b>					
Voltage	duration: phase/N	V		276	
	1 second: phase/N	V		460	
	duration: phase/phase	V		480	
	1 second: phase/phase	V		800	
Current	duration	A		76	6
	1 second	A		126	10
<b>Display</b>					
Rate	LCD H x W readout data	mm x mm		double 8 x 4 <sup>1)</sup>	
	7-digit with decimal points			Active/reactive	
Active energy	drum-type register H x W: 7-digit with 1 decimal	mm x mm			
Display period		/s		0.5	
Storage of measured values		kWh		EEPROM	
<b>Measuring accuracy</b> at 23 °C $\pm 1$ °C					
Active energy	according to IEC 61036	class		2	
<b>Safety</b>					
Supply measuring circuit isolation				electrical	
Rated insulation voltage		V		600	
Rated impulse withstand voltage	inputs against ground for 1 min. at 50 Hz	kV		4	
Overvoltage category	VDE 0110 T1			III	
<b>Pulse output, S0 interface</b> according to IEC 61393/ DIN 43864					
	IR test output LED	Imp/Wh		10	
	terminals, output	Imp/kWh		10	1
	minimum pulse duration	ms		125	
	external voltage	V DC		5 ... 30	
	current	mA		10 ... 20	
	resistance	k $\Omega$		0.5 ... 1.5	
<i>instabus KNX EIB interface</i>					
Standard				EIS 9	
Readout data				1)	
<b>Terminals</b>					
Main current paths	$\pm$ screw (Pozidriv)			2	
Supply/control terminals	blade for slotted screw	mm		0.4 x 2.5	
Conductor cross-sections main current paths	rigid (max.)	mm <sup>2</sup>		1 x 10	
	rigid (min.)	mm <sup>2</sup>		1 x 1.5	
Conductor cross-sections supply/control terminals	rigid (max.)	mm <sup>2</sup>		1 x 2.5	
	flexible with sleeve	mm <sup>2</sup>		1 x 0.75	

<sup>1)</sup> See table on page 10/19.

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<b>Ambient conditions</b>					
Temperature	storage	°C	-40 ... +70		
	operation	°C	0 ... +55		
Relative air humidity	storage	%	≤ 98		
	operation	%	≤ 80		
Minimum vibration	amplitude at 50 Hz	mm	±0.25		
Degree of pollution	VDE 0110-1		2		
Degree of protection	(terminal area)		IP40 (IP20)		