

## Overview

## Features

- Accuracy class 2 according to IEC 62053-11
- With drum-type register  $4 \times 1.2$  mm
- Short-circuit resistant pulse output

## Application

E-meters serve the measurement of kWh in single-phase systems, e.g. in industrial plants, offices and apartments in apartment houses

## Technical specifications

Data according to EN 62053-11, -31				7KT1 140	7KT1 141
<b>Supply</b>					
• Rated control supply voltage $U_c$		V AC		230	
• Operating range $U_c$		$\times U_c$		0.80 ... 1.20	
• Rated frequency		Hz		50	
• Operating frequency range		Hz		45 ... 65	
• Rated power dissipation $P_v$		VA		1	
<b>Measuring inputs</b>					
• Connection type				direct	
• Voltage		V		230	
• Operating range voltage		V		184 ... 276	
• Current		A		63	
• Operating range current	direct connection	A		0.005 ... 63	
• Minimum operational current		mA		5	
• Frequency		Hz		50	
• Operating frequency range	intermodulation distortion $\leq 3\%$ ; symmetric sine curve	Hz		45 ... 65	
<b>Overload capability</b>					
• Voltage $U_e$	continuous: phase/N	V		276	
	1 second: phase/N	V		300	
• Current $I_e$	continuous	A		63	
	1 second	A		126	
<b>Display</b>					
• Rate				single	double
• Active energy	drum-type register H $\times$ W	mm $\times$ mm		4 $\times$ 1.2	2 $\times$ (4 $\times$ 1.2)
	7-digit with 1 decimal			0 ... 9999999.9	2 $\times$ (0 ... 9999999.9)
<b>Measuring accuracy</b>					
• Active energy	at 23 °C $\pm 1$ °C	%		$\pm 2$	
<b>Safety</b>					
• Separation of current and voltage circuit				electrical	
• Rated insulation voltage		V		600	
• Rated impulse withstand voltage	inputs against ground for 1 min. at 50 Hz	kV		4	
• Overvoltage category	according to EN 60664-1			III	
<b>Pulse output</b>					
• S0 interface according to DIN 43864, IEC 62053-31	IR test output LED	Imp/Wh		10	
	terminals, output	Imp/kWh		10	
	pulse duration	ms		125	
	minimum interval between 2 pulses	ms		125	
	required voltage	V DC		5 ... 30	
	permissible current range	mA		10 ... 20	
<b>Terminals</b>					
• Main current paths	$\pm$ screw (Pozidriv)			2	
• S0 interface/control terminals	blade for slotted screw	mm		0.4 $\times$ 2.5	
• Conductor cross-sections, main current paths	rigid, max.	mm <sup>2</sup>		1 $\times$ 35	
	rigid, min.	mm <sup>2</sup>		1 $\times$ 1.5	
• Conductor cross-sections S0 interface/control terminals	rigid, max.	mm <sup>2</sup>		1 $\times$ 2.5	
	flexible with sleeve, min.	mm <sup>2</sup>		1 $\times$ 0.75	
<b>Ambient conditions</b>					
• Temperature	storage	°C		-40 ... +70	
	operation	°C		0 ... +55	
• Relative air humidity	storage	%		$\leq 98$	
	operation	%		$\leq 80$	
• Minimum vibration	amplitude at 50 Hz	mm		$\pm 0.25$	
• Degree of pollution	according to EN 60664-1			2	
• Degree of protection				IP20	