FLUKE®

1740 Series
comparison chart

		Obsolete Fluke memo boxes			NEW Fluke 1740 Series		
		1743	1744	1745	1742	1746	1748
Measurement methods	61000-4-30	Class B			Class A 3rd ed		
Inputs	Measurement	3 V 4 A			3 V 4 A		
Inputs	Aux input (analog inputs)	–			2 Analog 2 BLE (Fluke Connect modules)		
Sample rate		10.24 kHz			10.24 kHz		
Basic Measurements	Volt	●			●		
	Amp	●			●		
	Hz	●			●		
	Power (rms/full)	●			●		
	Power factor	PF, DPF, TAN ⊖			PF, DPF, TAN ⊖		
Energy	Energy	●			●		
	Forward reverse	–			●		
	Peak demand	–			●		
	Demand interval	–			5, 10, 15, 20, 30 min, off		
Advanced measurements	Mains signaling	–	●		–	●	
	Flicker	●			●		
	Startup inrush	–			–		
	Voltage unbalance	–	●		–	●	
	Current unbalance	–	●		–	●	
	Power (fund)	–	●		–	●	
	Power non fund.	–	●		●		
	Power unbalance & non fund.	–	–	–	–	●	
	Energy loss calc.	–			–	FEA+	
Harmonics	Distortion harmonic	THD			THD THC		
	Distortion inter-harmonic	–			–	TID	
	Harmonics (V&A)	–	●		–	• (10 min)	
	Harmonics angles	–			–		
	Power harmonics	–			–		
	Inter Harmonics	–			–	●	

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Events	List: Events dips, swells, interruption, rapid voltage changes, inrush and mains signaling	Dips, swells and interruptions			–	●	
	Sliding event ref.	–			–	●	
	Waveform deviation trigger & event list	–			–	–	●
	Waveshape: Dips, swells and interruption	–			–	–	●
	Waveshape rapid voltage changes	–			–	–	●
	Waveshape inrush event	–			–	–	●
	RMS profile: Dips, swells and interruption	–			–	–	●
	RMS profile: Rapid voltage changes	–			–	–	●
	RMS profile: Inrush event	–			–	–	●
	RMS profile: Main signaling	–			–	–	●
	Transients cycle kHz	–				–	
	Waveshape: Wavefom deviation	–			–	–	●
	RMS profile Waveform deviation	–			–	–	●
Phasor diagram	FC live	–			–	●	
	PQ health	–			–	●	
	EN 50160	–	●		–	●	
	GOST 32144 2013	–			–	●	
	3s PQ data	–			–	●	
	Program PQ limits	●	–	–	–	●	
Measurement standards	IEC 61000-4-7	–			Class I		
	IEC 61000-4-15	–			Class FI		
	IEC 62586-1	–			PQI-A-PI		
	IEC 62586-2	–			●		
	IEC 61000-2-2	–			●		
	GOST R 51317-4-xx	–			Class A		
	IEEE 1459	–			●		

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Reporting/ limits standards reporting via FEA+ or FC cloud (TBA)	EN 50160		●			FEA+	
	D-A-CH-CZ (TOR)		●			Amps harmonics only in FEA+ (report Q2)	
	ITIC		–			FEA+	
	ANSI		–			FEA+	
	CEBEMA		–			FEA+	
	IEEE 519		–			licence option – Incls 3 s harmonics interval	
	GOST 32145		–			FEA+	
Data formats	PQDIF		–			FEA+	
Time sync	GPS, NTP, IRIG B		–			NTP standard, GPS module optional	
Interface	USB		–			A, Mini B	
	Internal USB		–			2 x A	
	Ethernet RJ45		–			●	
	Wifi		–		2	2	2
	BLE bluetooth		–			Opt	1
	Ext I/O port		–			Accessories, GPS	
	Eternet fiber optic		–			–	
	RS-232/485		RS-232			–	
Recording	Local logging (trend)		●			●	
	Trend interval, avg. time		10 s..10 min			1 s..30 min	
	Recording duration		39 days			1 min .. >1 year	
	Memory		8MB			>= 1.5GB	
	Event list		–		–		Dips, swells, interruptions, rapid voltage changes and inrush
	RMS recordings 1/2 cycle		–		–		●
	Event waveforms		–		–		●
PC software			PQLog			FEA+ with config tool	
Powering	Power from measurement input		●			●	
	Battery	–		5 hr		3 hr	

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Die Kompetenz in der Messtechnik

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