

Peak Program Meter in 40 x 190 mm Panel-Mount Cassettes

Series 1100 peak meter analog and digital

Precision peak meters with high-resolution 201-segment displays

Peak program meters in 40 x 190 mm panel-mount cassettes are the worldwide standard for the level monitoring in analog and digital sound applications. The high-resolution, neon-coloured gas plasma displays are always extremely legible, even at a distance and in poor lighting conditions. The moving bar graph display also provides a clear and direct correlation between the visible display and the subjective listening experience. Important level points and the entire overload range are emphasised with a brighter display, which combines maximum information content with a very clear, uncluttered effect.

Five different versions for all common standards

The instruments in the standard 40 x 190 mm metal cassettes can be looped into the signal path at any important measurement points and installed at the most convenient location in the control room, either as a single instrument or as a bank of units. Five different versions are available for different applications, conforming to all the common national standards including DIN, British, Nordic and Digital.

In most RTW peak program meters both signal processing and display control are performed on the digital level by DSP's - guaranteeing both maximum reliability and unbeatable long-term stability.

All series 1100 peak program meters have the following features:

- Panel-mount units in metal cassettes with standard 40 x 190 mm dimensions, 107 mm depth
- High-resolution, 201-segment gas plasma display, scale length 127 mm
- Sandwich scale for horizontal or vertical installation
- Power supply 24 V DC and ± 15 V DC (analog units) or 22 V DC to 30 V DC (digital units)
- Standard 32-pin DIN 41612/C connector (digital instruments: 64-pin DIN 41612A/C connector)
- All models conform to the applicable standards (IRT 3/6, British, Nordic)
- Transformer-balanced inputs (except 1113G/1133E, electronically balanced)
- Analog input sensitivity +6 dBu (British +8 dBu)
- Measurement range -50 dB to +5 dB (analog DIN versions)
- Comprehensive range of installation and mounting accessories

Additional features of the digital peak meters:

- Transformer-balanced AES/EBU input, input signals actively buffered
- Digital scale -60 dB FS to 0 dB FS
- User-adjustable headroom markers
- Sampling rates 27 kHz to 96 kHz
- Overload display with adjustable sensitivity and attack time
- Peak hold display

Features and Standards

Features	Standard			Application	
	DIN	Analog British	Nordic		Digital
2-Channel Peak Meter	1113G	1133E			The budget-priced instrument for general analog audio applications as PA and sound systems, theatres, small studios and others
2-Channel Peak Meter + Peak Memory + Gain (+20 dB/+40 dB acc. to standard)	1115G 1108E	1130E	1135E	11520G 11520G-DIN ^{*)}	The universal equipment for studios, video post production, outside broadcast units
2-Channel Peak Meter + Peak Memory + Peak Hold + +20 dB Gain + Fast Mode (1 ms)	1117G 1109E				Analog studio applications with digital recording, video post production, multimedia production, live applications, outside broadcasting units
2-Channel Peak Meter + Peak Memory + Gain (+20 dB/+40 dB acc. to standard) + Fast Mode (1 ms) + Phase Meter	1119G	1134G	1139G	11519G 11519G-DIN ^{*)}	The standard model for advanced applications in broadcasting and recording using combined analog-digital systems or for TV-sound
2-Channel Peak Meter + Peak Memory + Gain (+20 dB/+40 dB acc. to standard) + Fast Mode (1 ms) + Phase Meter + Loudness Meter	1019GL	1034GL	1039GL	11529G 11529G-DIN ^{*)}	Analog and CD mastering, DVD mastering, compilations, film dubbing. The model with selectable loudness meter

***) Note:** The digital instruments delivered as „-DIN“ versions are equipped with standard DIN-scale (-50 dB to +5 dB, with red overload indication area) instead of the digital scale (-60 dB FS to 0 dB FS). The integration time has been presetted to 10 ms (it can be changed to 1 ms or sample). The digital level -9 dB FS corresponds with the „0 dB“ level displayed on the DIN scale. Using „-DIN“ version instruments allow to compare digital signals with analog ones when working with them in parallel.

Product information

Series 1100 Peak Meter

Specifications of analog peak meter according to DIN standard							
Standard	DIN						
Model number	1108E	1109E	1113G	1115G	1117G	1119G	1019GL
• General							
Supply voltage	24 V DC, $\pm 10\%$ or $\pm 15\text{ V}$, $\pm 10\%$						
Current drain	0.19 A	0.19 A	0.15 A	0.17 A	0.18 A	0.21 A	0.275 A
Weight	750 g	750 g	700 g	750 g	800 g	800 g	860 g
Dimensions (W x H x D)	40 x 190 x 107 mm						
Fastening	Clamping locks		M3 screws				
Orientation	horizontal or vertical (sandwich scale)						
Connector	DIN 41612/C, 32-pin, male						
Keys	Memo, +20 dB, Reset		--	Memo, +20 dB, Reset			
Switches	--	--	--	--	Peak hold	--	Peak hold Loudness
Indicators (LED)	+20 dB	+20 dB, Fast	--	+20 dB	+20 dB, Fast		
Remote control	Key functions		--	Key functions, other functions			
• Peak meter							
Standard	IRT 3/6 and DIN 45406						
Balanced inputs	transformer		electronically	transformer			
Reference level	+6 dBu (selectable)						
Max. input level	+21 dBu						
Adjustment range	from 0 dBu to +18 dBu for "0 dB" indication						
Integration time	10 ms	10 ms/1 ms (0.1 ms opt)	10 ms		10 ms/1ms (0.1 ms option)		
Fall back time	1.5 s for 20 dB, 2.5 s for 40 dB						
Display range	-50 dB to +5 dB	-50 dB to +10 dB	-50 dB to +5 dB				
Overload indication area	0 to +5 dB	0 to +10 dB	0 to +5 dB				
Loudness meter	--	--	--	--	--	--	selectable
Scale length	150 mm			127 mm			
Display elements	301/channel			201/channel			
Display type	Gas plasma display, neon orange						
• Phase meter							
Display range	--	--	--	--	--	-1 r to +1 r	
Display elements	--	--	--	--	--	11 LED's	
Display color	--	--	--	--	--	rot: $-1 r < r < -0.2$ gelb: $0 r$ grün: $0.2 < r < 1$	
Integration time	--	--	--	--	--	0.5 s	
Fall back time	--	--	--	--	--	0.5 s	
• Items delivered	DIN connector (female), manual						
• Optional accessories	19" rack mount kits, subracks, desktop instrument cases, power supplies						

Product information

Series 1100 Peak Meter

Specifications of analog peak meter according to British and Nordic standard							
Standard	BRITISH IIa				NORDIC N9		
Model number	1133E	1130E	1134G	1034GL	1135E	1139G	1039GL
• General							
Supply voltage	24 V DC, $\pm 10\%$ or $\pm 15\text{ V}$, $\pm 10\%$				24 V DC, $\pm 10\%$ or $\pm 15\text{ V}$, $\pm 10\%$		
Current drain	0.15 A	0.17 A	0.21 A	0.275 A	0.17 A	0.21 A	0.275 A
Weight	700 g	750 g	750 g	800 g	700 g	750 g	800 g
Dimensions (W x H x D)	190 x 40 x 107 mm				190 x 40 x 107 mm		
Fastening	M3 screws				M3 screws		
Orientation	horizontal or vertical (sandwich scale)				horizontal or vertical (sandwich scale)		
Connector	DIN 41612/C connector, 32-pin, male				DIN 41612/C connector, 32-pin, male		
Keys	--	Memo, +40 dB, Reset			Memo, +40 dB, Reset		
Switches	--	--	--	Peak hold Loudness	--	--	Peak hold Loudness
Status indicators (LED)	--	+40 dB	+40 dB, Fast		+40 dB, Fast		
Remote control	--	Key functions			Key functions		
• Peak meter							
Standard	BRITISH IIa				NORDIC N9		
Balanced inputs	electronically	transformer			transformer		
Reference level	+8 dBu (selectable)				+6 dBu (selectable)		
Max. input level	+20 dBu				+21 dBu		
Adjustment range	0 dBu to +15 dBu for mark "6"				0 dBu to +15 dBu for mark "+6 dB"		
Integration time	10 ms	10 ms/1ms		5 ms	5 ms/1ms (0.1 ms opt.)	5 ms/1ms	
Fall back time	2.8 s from mark "7" to "1"				1.7 s for 20 dB, 3.5 s for 40 dB		
Display range	Mark "1" to "7" (-12 dB to +12 dB)				-42 dB to +12 dB		
Overload indication range	Mark "6" to "7"				+6 dB to +12 dB		
Loudness meter	--	--	--	selectable	--	--	selectable
Scale length	127 mm				127 mm		
Display elements	201/channel				201/Kanal		
Display type	Gas plasma display, neon orange				Gas plasma display, neon orange		
• Phase meter							
Display range	--	--	-1 r to +1 r		--	-1 r to +1 r	
Display type	--	--	11 LED's		--	11 LED's	
Display color	--	--	rot: -1 r to 0.2 r gelb: 0 r grün: 0.2 to 1		--	rot: -1 r to 0.2 r gelb: 0 r grün: 0.2 to 1	
Integration time	--	--	0.5 s		--	0.5 s	
Fall back time	--	--	0.5 s		--	0.5 s	
• Items delivered	DIN connector (female), manual						
• Optional accessories	19" rack mount kits, subracks, desktop instrument cases, power supplies						

Product information

Series 1100 Peak Meter

Specifications of peak meter according to Digital standard						
Standard	Digital					
Model number	11520G	11519G	11529G	11520G-DIN	11519G-DIN	11529G-DIN
• General						
Supply voltage	21.5 - 30 V DC			21.5 - 30 V DC		
Current drain	0.16 A	0.2 A	0.2 A	0.16 A	0.2 A	0.2 A
Weight	700 g	700 g	700 g	700 g	700 g	700 g
Dimensions (W x H x D)	190 x 40 x 107 mm			190 x 40 x 107 mm		
Fastening	clamping locks/M3 screws			clamping locks/M3 screws		
Orientation	horizontal or vertical (sandwich scale)			horizontal or vertical (sandwich scale)		
Connector	DIN 41612A/C connector, 64-pin, male			DIN 41612A/C connector, 64-pin, male		
Keys	Memo, Gain, Reset			Memo, Gain, Reset		
Switches	--	--	Peak hold Loudness	--	--	Peak hold Loudness
Indicators (LED)	Sampling rate (44.1/48/96 kHz), Emphasis, Error, +40 dB, OVER			Sampling rate (44.1/48/96 kHz), Emphasis, Error, +40 dB, OVER	Sampling rate (44.1/48/96 kHz), Emphasis, Error, +40 dB, OVER, Fast	
Remote control	Key functions, other functions			Key functions, other functions		
• Peak meter						
Scale	acc. IRT 3/6 Nr. 2 (3.98)			acc. IRT 3/6 und DIN 45406		
Digital inputs	AES/EBU, stereo, transformer balanced			AES/EBU, stereo, transformer balanced		
Impedance	selectable: 110 Ω/high-Z			selectable: 110 Ω/high-Z		
Digital output	AES/EBU, 110 Ω, input signal			AES/EBU, 110 Ω, input signal		
Sampling rate	27 kHz to 96 kHz			27 kHz to 96 kHz		
Integration time	Sample			10 ms/1 ms/0.1 ms		
Fall back time	1.5 s für 20 dB, 2.5 s für 40 dB			1.7 s for 20 dB, 3.5 s for 40 dB		
Display range	-60 dB FS to 0 dB FS			-50 dB to +5 dB		
Overload indication range	--			0 dB to +5 dB		
Headroom	-6 dB to -15 dB (selectable in steps of 1 dB)			--		
Overload indicators	2 LED's, threshold level selectable: FS, FS-1, DS-2, -0.1, -0.2, -0.5 dB, 1 dB bis -10 dB			2 LED's, threshold level selectable: FS, FS-1, DS-2, -0.1, -0.2, -0.5 dB, 1 dB bis -10 dB		
Attack time (OVER)	1 to 15 samples			1 to 15 samples		
Word length OVER detector	selectable from 24 bit to 9 bit			selectable from 24 bit to 9 bit		
DC filter	selectable, 5 Hz			selectable, 5 Hz		
Loudness meter	--	--	selectable	--	--	selectable
Scale length	127 mm			127 mm		
Display elements	201/channel			201/channel		
Display type	Gas plasma display, neon orange			Gas plasma display, neon orange		
• Phase meter						
Display range	--	-1 r to +1 r		--	-1 r to +1 r	
Display type	--	11 LED's		--	11 LED's	
Display color	--	rot: -1 r to 0.2 r gelb: 0 r grün: 0.2 to 1		--	rot: -1 r to 0.2 r gelb: 0 r grün: 0.2 to 1	
Integration time	--	0.5 s		--	0.5 s	
Fall back time	--	0.5 s		--	0.5 s	
• Items delivered	DIN connector (female), manual					
• Optional accessories	19" rack mount kits, subracks, desktop instrument cases, power supplies					

Product information

Series 1100 Peak Meter

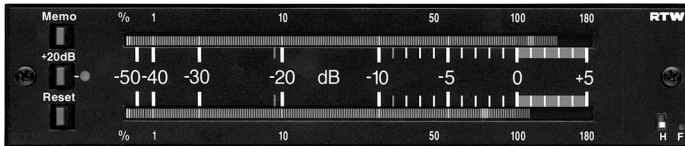
Accessories	
• 1U rack mount kits for 19" systems	
12993	19"/1U rack mount kit with one cut-out (center position) for one instrument 40 x 190 mm, sheet steel, black finish. Every instrument needs one power supply and bracket.
12994	as above, but with two cut-outs for instruments 40 x 190 mm
12961	as above, but with one cut-out for one instrument 40 x 190 mm and one cut-out for one table top instrument series 1200
13671	Blank panel for unused left cut-out in 19"/1U rack mount kit 12961
13721	Blank panel 40 x 190 mm with screws M3 for unused cut-outs in 19"/1U rack mount kits
1373	Blank panel 40 x 190 mm with clamping locks for unused cut-outs in 19"/1U rack mount kits
• 5U subracks for 19" systems	
1125-10	19"/5U subrack for up to 10 analog or digital instruments 40 x 190 mm with power supply. 20 XLR connectors on the rear panel are prewired to the 10 slots. Sheet steel, fine-grain textured black finish, mounting bracket.
1373	Blank panel 40 x 190 mm for unused slots in 19"/5U subrack 1125-10
• Power pack and bracket units with XLR connectors	
1128H	Power supply and bracket with XLR connectors and switches for analog instruments 40 x 190 mm, suitable for mounting at the 19"/1U rack mount kits 12993, 12994 and 12961. Every instrument needs one power supply and bracket.
11280	as above, but for digital instruments (11519, 11520, 11529)
• Desktop instrument cases with power supply	
1020E	Instrument case with power supply, switches for additional functions, XLR connectors and mounting bracket for analog instruments 40 x 190 mm
10220	as above, but for digital instruments (11519, 11520, 11529)
• Desktop instrument cases without power supply	
1018	Instrument case without power supply, switches and connectors, but with mounting bracket for instruments 40 x 190 mm. Rear panel closed with cable outlet.
• Other accessories	
12996	Cover plate and mounting frame for instruments 40 x 190 mm (with M3 screws or removable clamping locks)
13973	Clamping lock fastening kit for instruments 40 x 190 mm with M3 screws

Subject to changes without prior notice!

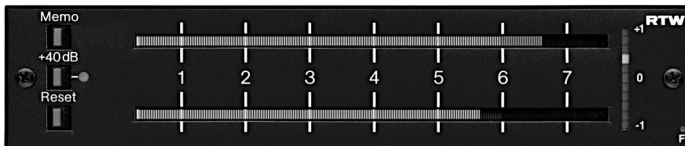
Product information

Series 1100 Peak Meter

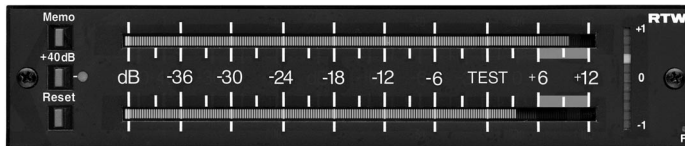
Examples for some scales with different standards



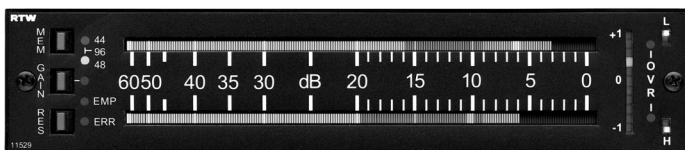
Model 1117G with DIN scale



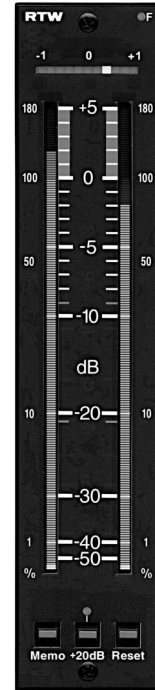
Model 1134G with British IIa scale



Model 1139G with Nordic N9 scale



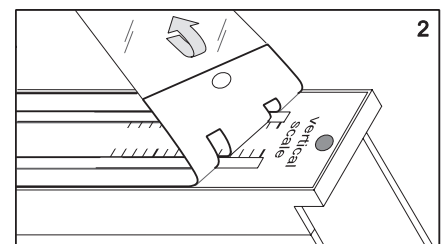
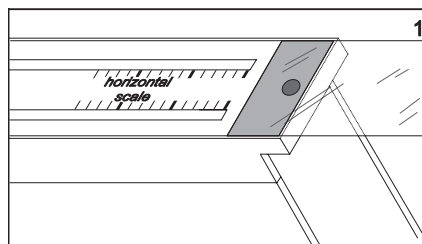
Model 11529G with digital scale



Model 1119G with DIN scale and vertical orientation

Sandwich scale

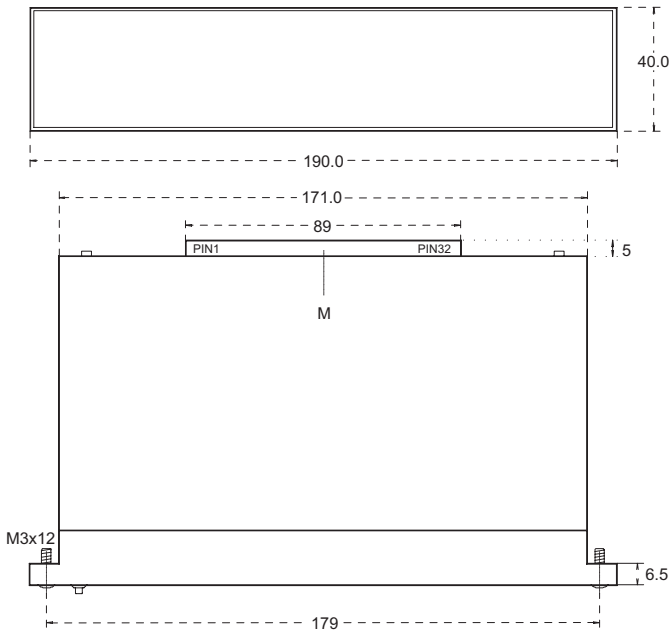
The series 1100 peak meter are delivered with a visible horizontal scale and a vertical scale mounted underneath. For vertical mounting direction remove the upper horizontal scale.



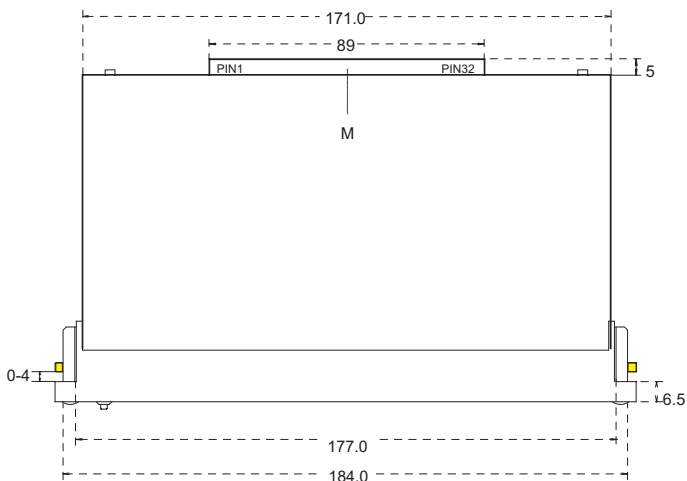
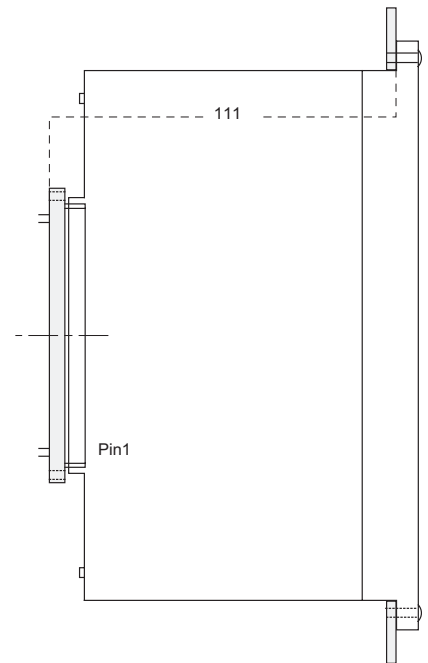
Product information

Series 1100 Peak Meter

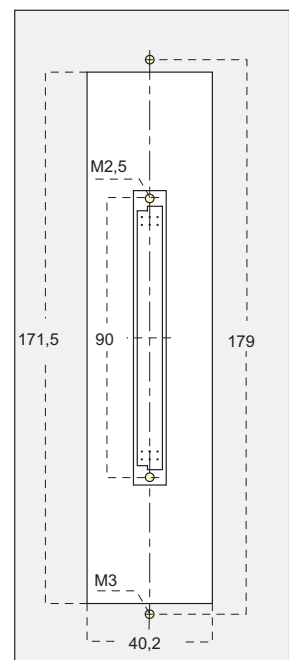
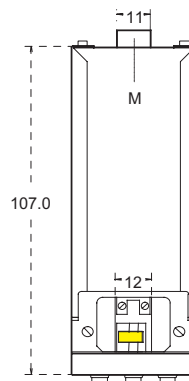
Dimensions



M3-Befestigung
M3 fastening



Klemmverriegelung
Clamping locks



Frontpanel - cutout

Abmessungen in Millimeter: Darstellung reduziert.
Dimensions in mm, scaled down.

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PL_1100_E



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