



Power-packed flashguns

Eight convenient but potent light sources to help your shots shine

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he adjustable and directional light from a flashgun can do anything from filling in the shadows for sunny-day portraiture to delivering a complete lighting solution for

indoor or late-night photography. A little light can go a long way.

All of the flashguns we've chosen for this group test are powerful models that are rich in features. As such, they have impressive 'guide numbers' (a measure of their maximum light output), bounce, swivel and zoom heads to enable greater versatility and control over

lighting, and full dedication for various camera systems. This enables automatic TTL (Through The Lens) flash metering, and the ability to control flash parameters directly from your camera.

Other fancy features include wireless slave and possibly 'master' modes for linking two or more flashguns for complex lighting setups; and advanced flash modes that can typically comprise high-speed sync, rear curtain, red-eye reduction and maybe even a programmable strobe mode, for firing a series of flashes within one long exposure. Let's go into the light...

Matthew Richards

The contenders

1	Canon Speedlite 470EX-AI	£455/\$399
2	Canon Speedlite 600EX II-RT	£539/\$479
3	Hähnel Modus 600RT	£229/\$255
4	Metz Mecablitz 64 AF-1	£309/\$435
5	Nikon Speedlight SB-700	£259/\$327
6	Nikon Speedlight SB-5000	£569/\$597
7	Nissin i60A	£239/\$340
8	Phottix Mitros+ TTL Transceiver	£249/\$250

Power-packed flashguns **Group Test**



Group Test Power-packed flashguns



Canon Speedlite 470EX-AI

£455/\$399

Smarter than the average flashgun

This Canon Speedlite takes clever tricks to a new level. In AI Bounce mode, for example, it fires a pre-flash pulse at the target, then flips up 90 degrees and fires a second pulse at the ceiling. It then sets the optimum bounce angle and power output. A semi-automatic mode enables bouncing the flash off a white wall or an adjacent reflector card.

However, other features you'd expect to find in a flashgun costing this much are absent – including RF (Radio Frequency) wireless linking, featured on Canon's cheaper 430EX III-RT. And it can only work in optical slave mode: there's no programmable repeat mode, nor even a pull-out reflector card.

Performance

The artificial intelligence gets things right for bounce flash photography, although the process required does slow things down a bit.

Digital Camera verdict

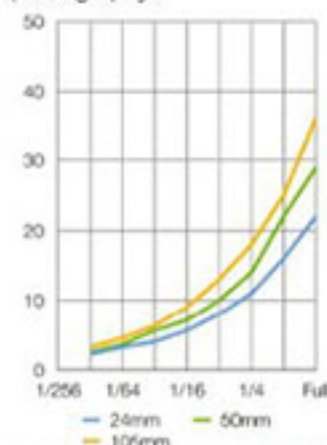
You'll either love the AI Bounce mode or think it's gimmicky. Either way, Canon's 430EX III-RT mid-range flashgun has a more advanced feature set, and costs less.

3.5 ★★★★★ Very good



Power output

It's a little stronger than in some mid-range flashguns, well-suited to bounce flash photography.



TTL accuracy 0.00

We enjoyed consistent accuracy in both bounce and direct flash modes.

Recycle speed (sec)

NiMH 2.4 Alkaline 3.4
Recycling speed is swift, even after a full-power flash.

Canon Speedlite 600EX II-RT

£539/\$479

A powerful pro-grade flashgun

Canon's top-flight flashgun model for professional photographers is actually not much more expensive than the beginner-friendly 470EX-AI. It has a more robust, weather-sealed construction, and a lot more power under the bonnet, with a rating of Gn 60, plus an extended 20-200mm motorised zoom range.

A major upgrade over the 470EX-AI is that this one features master and slave wireless modes, with both RF and optical transmission. RF linking increases the range from around 10m to 30m, with the extra benefit of being able to work around corners or through obstacles, as well as being more reliable than infrared in bright, outdoor conditions.

Performance

Performance is excellent. The control panel is intuitive, enabling you to set up complex parameters quickly and easily.

Digital Camera verdict

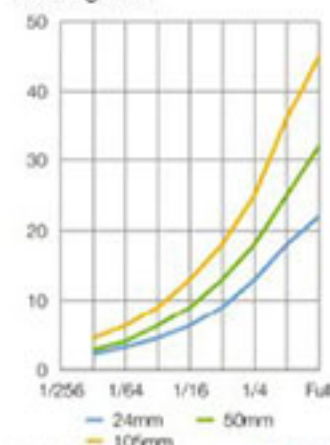
The 600EX is powerful and highly versatile, and the full master/slave radio frequency connectivity is really well implemented. It's much better value than the 470EX-AI.

4.5 ★★★★★ Outstanding



Power output

It looks a bit average at zoom settings up to 105mm, but really stretches its legs at the long end.



TTL accuracy 0.00

As you'd expect from an own-brand flashgun, TTL accuracy is excellent.

Recycle speed (sec)

NiMH 3.2 Alkaline 3.4
It matches the 470EX-AI on alkaline cells.



Hähnel Modus 600RT

£229/\$255



Power to the people

Something of a flashgun revolutionary, the Modus 600RT uses a lithium-ion battery pack, rather than AA cells. It has a powerful Gn 60 rated maximum output, along with a super-fast 1.5-second recycling speed, beating all comers in this group test. Stamina is excellent too, with around 550 full-power flashes on a full charge.

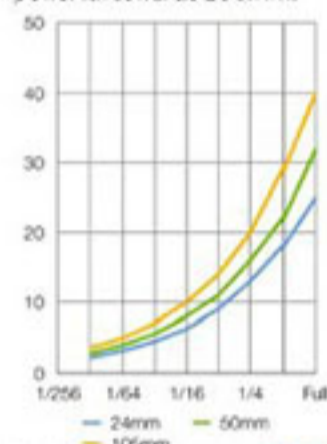
The basic flashgun is available in Canon, Nikon, Fujifilm and Sony versions, each with a built-in RF transceiver. Upmarket features include a 20-200mm zoom head, high-speed sync and programmable repeat flash modes. Build quality is good too.

Performance

With its powerful maximum output, consistently accurate TTL metering, and super-fast recycling, the Hähnel can match or beat camera manufacturers' own-brand range-topping flashguns for performance.

Power output

It's slightly lower than some other flashguns at the 105mm zoom setting, but equally powerful towards 200mm.



TTL accuracy 0.00

We tested the Canon and Nikon editions, and both proved impressively accurate.

Recycle speed (sec)

NIMH 1.5 Alkaline N/A
Recycle speed is twice as fast than most other competitors.

Digital Camera verdict

The Pro kit with dual flashguns and a hotshoe mounting RF controller offers versatility, power and super-fast recycle speeds, for less than one top-end Canon or Nikon flashgun.

5.0 ★★★★★
A best-in-class product



Power-packed flashguns Group Test



Metz Mecablitz 64 AF-1

£309/\$435



The flagship from a flash legend

There's a lot to like about this flashgun from the long-established German flashgun manufacturer. It has a powerful 24-200mm zoom range, -9 to 90-degree bounce facility, and the availability of both master and slave wireless operation, although only with optical transmission.

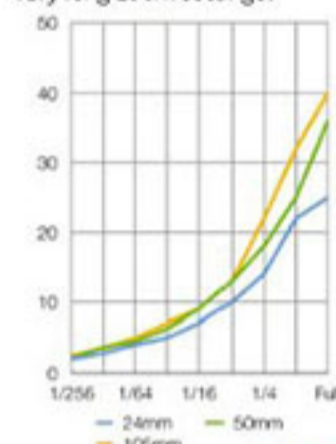
Uniquely in this group, there's a secondary sub-flash module for adding a catchlight when using the main head in bounce or swivel mode. Onboard controls are slick and intuitive, based on a colour touchscreen. Pro-grade extras include a programmable repeat flash mode and a socket for an optional power pack.

Performance

TTL metering tended to err very slightly on the bright side in our tests and, despite the beefy Gn 64 power rating, the Metz delivers fairly average maximum power output at 105mm.

Power output

It's good overall, but doesn't increase as noticeably as usual at very long zoom settings.



TTL accuracy 0.16

Marginally bright with TTL metering in both direct and bounce modes.

Recycle speed (sec)

NIMH 3.4 Alkaline 7.4
It's not the quickest performer with either battery type.

Digital Camera verdict

The Metz features a colour touchscreen that makes light of settings and adjustments. The sub-flash module is another handy feature, unique in this group.

4.5 ★★★★★
Outstanding



Group Test Power-packed flashguns



Nikon Speedlight SB-700

£259/\$327

Limited power, good control

The SB-700 comes complete with colour correction filters for use with both fluorescent and tungsten ambient lighting, plus auto-sensing when fitted. A good-quality diffusion dome is also included. Smart features include a range of illumination patterns, a powerful 24-120mm zoom range and wireless commander and slave modes, albeit with only optical rather than RF connectivity.

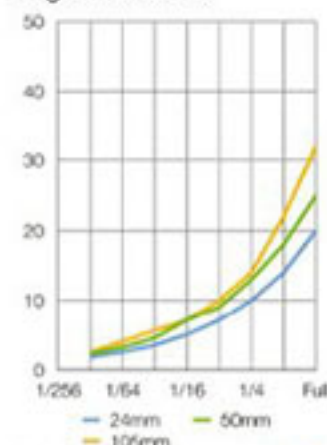
One niggle is that you can only switch from Nikon's TTL-BL (Balanced Light) mode to standard TTL by changing the metering mode on the host camera body. There's also no programmable repeat mode.

Performance

The G_n 38 maximum power rating is the lowest here. Even so, it comes pretty close to the Canon 470EX-AI and Phottix flashguns at competing zoom settings.

Power output

It's a little down on others in the group, but the maximum 120mm zoom setting is longer than some.



TTL accuracy 0.00

TTL metering works very well in Balanced Light mode, giving natural-looking results.

Recycle speed (sec)

NiMH 2.7 Alkaline 5.4
It's one of the faster flashguns in the group on NiMH cells.

Digital Camera verdict

It's not the most powerful flashgun around and switching between TTL metering modes is a chore, but operation is seamless with Nikon cameras, and recycling is fast.

4.5 ★★★★★ Outstanding



Nikon Speedlight SB-5000

£569/\$597

Good on the radio, but not great

Bigger, better and more powerful than the SB-700, this is Nikon's top-end flashgun, aimed at the professional market. It has a more powerful G_n 55 rating, a bigger 24-200mm zoom range, and a programmable repeat mode. The on-board control system is also more comprehensive. As expected, there's the option of using an external battery pack, and TTL-BL or regular TTL modes can be selected directly.

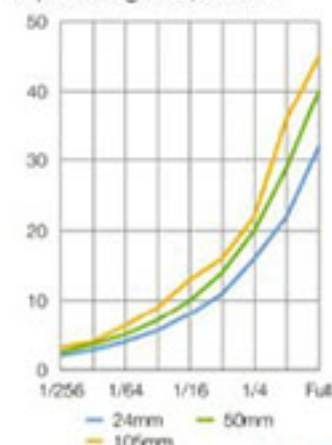
Similar to the latest top-end Canon flashgun on test, the Nikon has built-in RF connectivity, as well as optical linking. But it's not all good news: the Nikon only has a built-in receiver, so won't work as an RF transmitter.

Performance

At the 105mm zoom setting, the Nikon equals the Canon 600EX II-RT and, more surprisingly, is only also matched by the diminutive Nissin flashgun.

Power output

There's certainly no lack of power, with the SB-5000 matching or beating all the top-ranking competitors.



TTL accuracy 0.00

Automatic flash metering works very well in both regular and TTL-BL modes.

Recycle speed (sec)

NiMH 2.3 Alkaline 2.9
It beats all of the other AA-based flashguns on test.

Digital Camera verdict

This is the most powerful flashgun in Nikon's stable, but radio frequency communication misses a trick, and it's not particularly great value for money.

4.0 ★★★★★ Excellent





Nissin i60A

£239/\$340



A wolf in sheep's clothing

We've all seen compact little flashguns that lack decent power and are bereft of advanced features. Despite being reasonably priced, the Nissin i60A bucks the trend, shoehorning an awful lot into its diminutive build. There's a mighty G_n 60 power rating, an oversized 24-200mm motorised zoom range and a full 180 degrees of swivel in both left and right directions. The kit includes a diffusion dome, a soft pouch and a mini-stand.

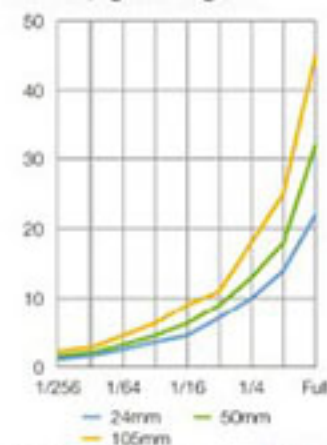
Nissin has also included a constant LED light, ideal for video and close-range stills shooting. Comprehensive on-board controls are easy to use and highly intuitive. Wireless infrared and optical slave functions are built-in.

Performance

Performance is mostly very pleasing and we have no criticisms of the maximum power output throughout the generous zoom range.

Power output

The maximum intensity of illumination is pretty astonishing for such a small, light flashgun.



TTL accuracy -0.33

We often found that TTL flash metering resulted in some slight underexposure.

Recycle speed (sec)

NiMH **3.5** Alkaline **3.9**
Recycle speeds are perfectly respectable.

Digital Camera verdict

Proving that bigger isn't necessarily better, this is a delightfully compact flashgun that packs a real punch, a constant LED light and a smart colour graphical interface.



Phottix Mitros+ TTL Transceiver

£249/\$250



Powerful and well-connected

Phottix is best known for its range of studio flash heads and triggering solutions, but this is a highly capable flashgun with Canon, Nikon and Sony dedicated options. It has a powerful G_n 58 rating, and wide-ranging flash modes that include programmable repeat. The kit comes with a diffusion dome and a weather-sealing shroud over its mounting foot. One downside is that the motorised zoom range is fairly modest, at 24-105mm.

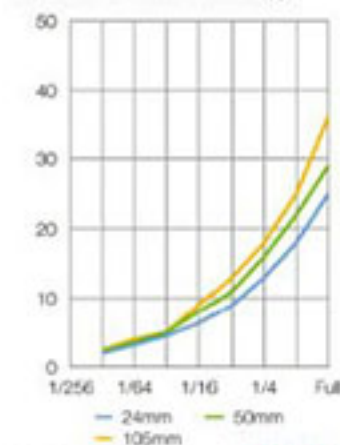
Full optical commander and slave modes are featured, and the Phottix can also work in both master and slave modes with RF linking.

Performance

During our tests, maximum power output was a little down on other top-end flashguns, equalling that of the Canon 470EX-AI. It's substantially lower than in the Canon 600EX II-RT, Nikon SB-5000 and Nissin i60A.

Power output

It's not really a heavy-hitter among this company, struggling to live up to the claims of its G_n rating.



TTL accuracy 0.83

We found TTL metering to be fairly consistent, but usually nearly a full stop too bright.

Recycle speed (sec)

NiMH **3.5** Alkaline **7.1**
Recycle speed is average on NiMH and slow on alkaline.

Digital Camera verdict

The Mitros+ is a nicely made, well-connected flashgun that works a treat with Phottix's hotshoe triggers, although we had to dial in some negative TTL exposure bias.



Group Test Power-packed flashguns

Hähnel hits the headlines

The Hähnel Modus 600RT is like a BOGOF deal

Buy the Hähnel flashgun on its own and it's a highly capable, powerful and feature-rich solution. Our pick is the 'Pro' kit, which contains two flashguns and feels like a 'buy one get one free' deal. At £449/\$559, this double-pack is still less expensive than a single Canon Speedlite 600EX II-RT or Nikon Speedlight SB-5000.

The build quality of the top-flight Canon and Nikon flashguns feels marginally better, but the Hähnel competes every inch of the way for performance, and its lithium-ion

battery pack gives terrific stamina and super-fast recycle speeds. And, naturally, two flashguns give you more versatility.

For own-brand Canon and Nikon flashguns, the Canon 600EX II-RT is far better than the 470EX-AI, the latter's only real claim to fame being its smart bounce and swivel system. Most photographers spending this sort of money on a flashgun are likely to be up to speed with bounce techniques in any case. Of the two Nikon flashguns, the SB-700 is the better buy, whereas the SB-5000 is more powerful.

The latter's inclusion of an RF receiver rather than the now more usual transceiver is frustrating, as it means the flashgun can't work as an RF wireless master.

Of the other independent flashguns on test, the Metz Mecablitz 64 AF-1 is a powerful and high-end model with a touchscreen that's great for intuitive use. The Nissin i60A is good for anyone wanting high-end performance while keeping the size down, and the Phottix Mitros+ TTL Transceiver is a high-performance flashgun, although its TTL accuracy is a bit suspect. ●

Camera
GOLD
AWARD

Camera
EDITOR'S
CHOICE

Camera
BEST FOR
SONY

Camera
BEST FOR
NIKON

Camera
VALUE
AWARD

Camera
BEST FOR
CANON

Camera
BEST FOR
FUJIFILM

Camera
BEST
ON TEST



How the flashguns compare

								
	Canon Speedlite 470EX-AI	Canon Speedlite 600EX II-RT	Hähnel Modus 600RT	Metz Mecablitz 64 AF-1	Nikon Speedlight SB-700	Nikon Speedlight SB-5000	Nissin i60A	Phottix Mitros+ TTL Transceiver
Contact	www.canon.co.uk		www.hahnel.ie	www.metzflash.co.uk	www.nikon.co.uk		www.nissin-digital.com	www.phottix.co.uk
Target price	£455/\$399	£539/\$479	£229/£255	£309/\$435	£259/£327	£569/\$597	£239/£240	£249/£250
Dedication	C	C	CFNS	C/NMFT/PS	N	N	C/FNS	C/NS
Max claimed Gv (ISO 100, metres)	Gv 47	Gv 60	Gv 60	Gv 64	Gv 38	Gv 55	Gv 60	Gv 58
Bounce (degrees)	0 to 120 degrees	-7 to 90 degrees	-7 to 90 degrees	-9 to 90 degrees	-7 to 90 degrees	-7 to 90 degrees	0 to 90 degrees	-7 to 90 degrees
Swivel (left/right)	180 / 180	180 / 180	180 / 180	180 / 120	180 / 180	180 / 180	180 / 180	180 / 180
Zoom range	24-105mm (auto)	20-200mm (auto)	20-200mm (auto)	24-200mm (auto)	24-120mm (auto)	24-200mm (auto)	24-200mm (auto)	24-105mm (auto)
Wide-angle diffuser	14mm	14mm	14mm	12mm	12mm	14mm	16mm	14mm
Flash exposure compensation	+/-3EV	+/-3EV	+/-3EV	+/-3EV	+/-3EV	+/-3EV	+/-2EV	+/-3EV
Manual power settings	1/1 to 1/128	1/1 to 1/128	1/1 to 1/128	1/1 to 1/256	1/1 to 1/128	1/1 to 1/256	1/1 to 1/256	1/1 to 1/128
Secondary lamp	No	No	No	Sub-flash	No	No	LED video	No
Wireless master/slave	Slave IR	Master/Slave IR/RF	Master/Slave IR/RF	Master/Slave IR	Master/Slave IR	Master/Slave IR/RF	Slave IR (optional RF)	Master/Slave IR/RF
Additional flash modes	HSS, RC	HSS, RC, Strobe	HSS, RC, Strobe	HSS, RC, Strobe	HSS, RC	HSS, RC, Strobe	HSS, RC	HSS, RC, Strobe
TTL flash exp error	0EV	0EV	0EV	+0.16EV	0EV	0EV	-0.33EV	+0.83EV
Full-power recycle (NiMH/alkaline)	2.3/4.2 sec	3.2/3.4 sec	1.5 sec	3.4/7.4 sec	2.7/5.4 sec	2.3/2.9 sec	3.5/3.9 sec	3.5/7.1 sec
Dimensions (WxHxD)	75x130x105mm	79x143x123mm	64x76x190mm	78x148x112mm	71x126x105mm	73x137x104mm	73x112x88mm	78x147x103mm
Weight (excl batts)	385g	435g	430g	422g	360g	420g	300g	427g
Features	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Build & handling	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Performance	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Value	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Overall	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★