

# FB3-QS

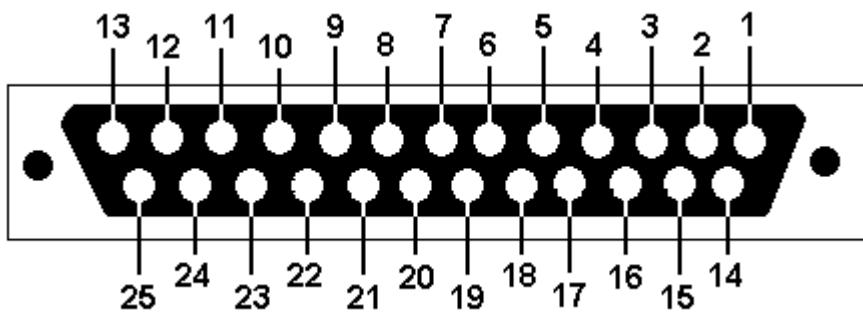
The Pangolin FB3-QS laser controller is a small, palm-sized box connects between a USB port on your PC and the ILDA input connector on your laser projector.

FB3-QS can use up to 500 mili-ampere which means that when you use an USB hub to connect the FB3-QS to your computer, make sure that you use a **powered USB hub**.

Dimensions : 4.2 x 2.8 x 1.3 in (110 x 71 x 33 mm)



## ILDA DB-25F pinouts



Signal name	Pin	Notes
X+	1	-5V to +5V
Y+	2	-5V to +5V
Intensity/Blanking +	3	0V to +5V
Interlock A	4	
Red+	5	0V to +5V
Green+	6	0V to +5V

Signal name	Pin	Notes
Blue+	7	0V to +5V
Deep blue +	8	0V to +5V
Yellow	+ 9	0V to +5V
Cyan +	10	0V to +5V
Z+	11	
Not connected	12	
Shutter	13	0V to +5V
X-	14	-5V to +5V
Y-	15	-5V to +5V
Intensity/Blanking -	16	0V
Interlock B	17	
Red-	18	0V
Green-	19	0V
Blue-	20	0V
Deep blue -	21	0V
Yellow -	22	0V
Cyan -	23	0V
Z-	24	
Ground	25	Cable shield

## LED light codes

The front LED next to the USB connector indicates the current function the FB3-QS is executing:

Led Color	status
Solid Green	Powered (connected to USB but no connection to QuickShow)
Solid Yellow	Connected (to the Quickshow or other software), but offline
Red Slow Flash	Online, but output inactive (dummy stream, no cue active)
Red Fast Flash	Online and output active (at least one cue active)
Yellow Slow Flash	Online but output disabled (either invalid license, or some other fault)
Solid White	Firmware update in progress

## Extending USB over Cat5

Pangolin has tested over 50 different kinds of USB extenders (not kidding) and various USB server/client setups. None of them fully worked with FB3-QS series controllers, except for one:

<https://www.startech.com/en-us/cards-adapters/usb2004ext2>

**Note that this is not USB over IP.**

The local and remote devices are connected by standard CAT5 or CAT6 cables, They use their own

proprietary protocol, so you need to use it one on one. The remote device supports maximum 4 devices, and the the original adapter is strong enough to power 4 FB3-QS.

There are 3 similar devices from this company (single, dual and quad port versions). They all should work equally well, but we only tested the quad port version.

From:

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