Date: October 10, 2019

To: Banner Channel Partners

From: Steve Milbrath, Product Life Cycle Director

Re: Product Notification – Q12 Series Sensors

Banner Engineering's Q12 Series Sensors are being enhanced with the benefits of Banner's latest ASIC technology. Specifically, all sensing modes of the Q12 product family (E/R, LV, LP, and FF) will be released into production in controlled stages estimated to start on or about November 4, 2019. Customers will benefit from stronger fluorescent light resistance and with this design change, some performance specifications will alter slightly and are outlined below.

Parameter	Current Specification	New Specification
Off State Leakage	NPN: 200 microamps PNP: 10 microamps	NPN: 10 microamps PNP: 10 microamps
Saturation Voltage	NPN: 1.25 Vdc at 50 mA PNP: 1.45 Vdc at 50 mA	NPN: 2.5 Vdc at 50 mA PNP: 2.5 Vdc at 50 mA
Output Response Time: (Opposed mode)	1.3 ms ON, 900 microseconds OFF	No Change
Output Response Time: (LV, LP, FF modes)	700 microseconds (4 of 4 demodulation)	850 microseconds (6 of 6 demodulation)

For the vast majority of Q12 uses, these specification changes will have little to no observed impact of sensor performance as compared to the sensor platform's original design. If, however, a customer is using a Q12 as a critical timing trigger for a process event, a sample of the new product may be desired to test in the application.

Note that Banner will not be changing any Q12 model numbers as a result of this design change and will control and document each change via the manufacturer's date code.

Please ensure all your sales teams are aware of this product notice and if there are any questions, please contact Banner's Sensor Global Business Development Manager or Technical Marketing Manager. Finally, please be on the lookout for exciting new DQ12 product launch and messaging information – coming soon!

Thank You!