HAMAMATSU

PHOTOSENSOR MODULES
H10425/H10426

OVER VIEW

The H10425 is a photosensor module that integrates a 25-mm (1") diameter head-on photomultiplier tube with a high-voltage power supply circuit. The H10425 has a large effective photocathode area of 22 mm diameter and features fast time response.
The H10426 is a photosensor module that integrates a 28-mm (1-1/8") diameter head-on photomultiplier tube with a high-voltage power supply circuit. The H10426 has a large effective photocathode area of 25 mm diameter.

Left: H10425 Right: H10426

SPECIFICATIONS

Parameter			H10425	H10426	Unit
Spectral Response			300 to 650		nm
Input Voltage			+11.5 to +15.5		V
Max. Input Voltage			+18		V
Max. Input Current *1			3.0		mA
Max. Output Signal Current			100		μA
Max. Control Voltage *2			+1.2 (Input impedance 1 MΩ)	+1.5 (Input impedance 1 MΩ)	V
Recommended Control Voltage Adjustment Range			0.5 to 1.1	0.5 to 1.4	V
Effective Photocathode Area			φ22	φ25	mm
Sensitivity Adjustment Range			1: 1000		—
Peak Sensitivity Wavelength			420		nm
Cathode	Luminous Sensitivity	Min.	60	60	μA/lm
		Typ.	90	95	
	Blue Sensitivity Index (CS 5-58)	Typ.	10.5	11	—
	Radiant Sensitivity *3	Typ.	85	88	mA/W
Anode	Luminous Sensitivity *4	Min.	40	50	A/lm
		Typ.	180	200	
	Radiant Sensitivity *3 *4	Typ.	1.7×10^5	1.8×10^5	A/W
	Dark Current *1 *5	Typ.	3	2	nA
		Max.	20	10	
Rise Time *4		Typ.	1.5	4	ns
Ripple Noise *4 *6 (peak to peak)		Max.	0.5		mV
Settling Time *7		Max.	10		s
Operating Ambient Temperature *8			+5 to +50		°C
Storage Temperature *8			-20 to +50		°C
Weight			170	270	g

NOTE: *1: Input Voltage=+15.0 V, Control Voltage=+1.0 V, Output Current=Dark Current
*2: Availabel I^2C interface instead of the low voltage input cable. Please consult with our sales office before ordering.
*3: Measured at the peak sensitivity wavelength
*4: Control voltage=+1.0 V
*5: After 30 minutes storage in darkness
*6: Cable RG-174/U, Cable length 450 mm, Load resistance= 1 MΩ, Load capacitance=22 pF
*7: The time required for the output to reach a stable level following a change in the control voltage from +1.0 V to +0.5 V.
*8: No condensation

Figure 1: Sensitivity Adjustment Method

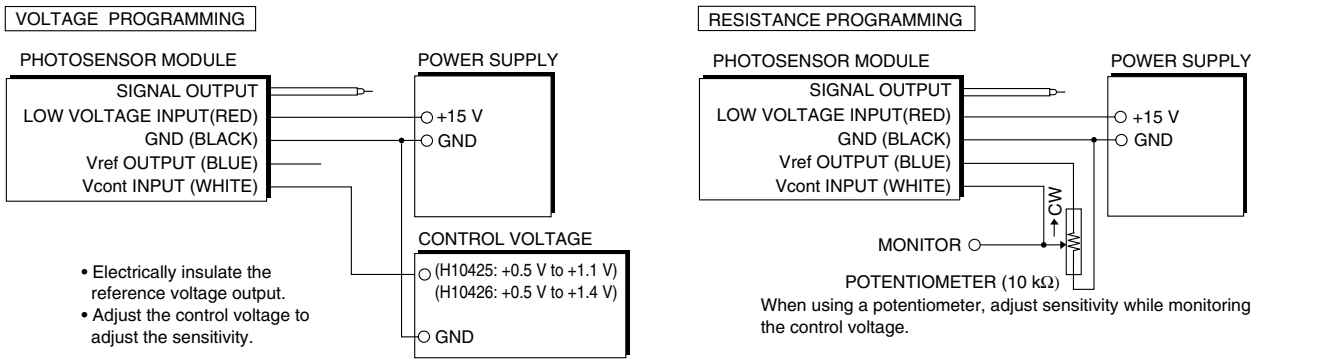

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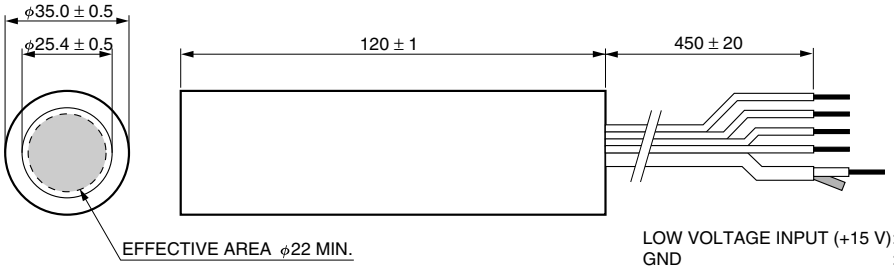
Figure 2: Dimensional Outlines (Unit: mm)

H10425



LOW VOLTAGE INPUT (+15 V): AWG26 (RED)
GND : AWG26 (BLACK)
Vref OUTPUT (+1.2 V) : AWG26 (BLUE)
Vcont INPUT (+0.5 V to +1.1 V) : AWG26 (WHITE)
SIGNAL OUTPUT : RG-174/U

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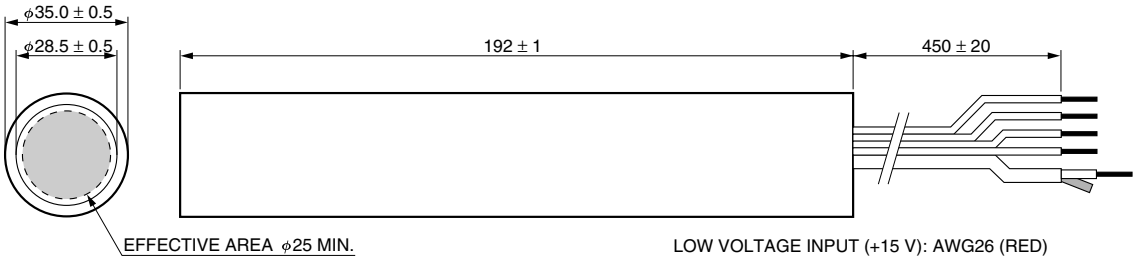
H10426



LOW VOLTAGE INPUT (+15 V): AWG26 (RED)
GND : AWG26 (BLACK)
Vref OUTPUT (+2.5 V) : AWG26 (BLUE)
Vcont INPUT (+0.5 V to +1.4 V) : AWG26 (WHITE)
SIGNAL OUTPUT : RG-174/U

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