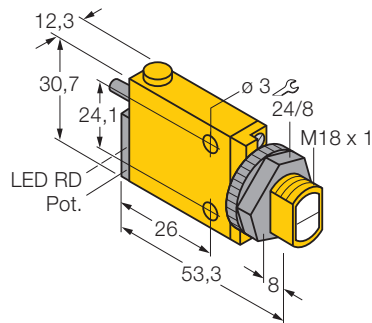
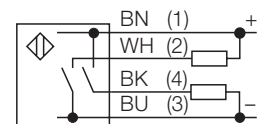


## Photoelectric sensor convergent mode sensor SM312CV



- compact housing style
- Reverse polarity and short-circuit protection
- cable, 2 m
- light/dark operate
- sensitivity adjustable via potentiometer
- alignment indication

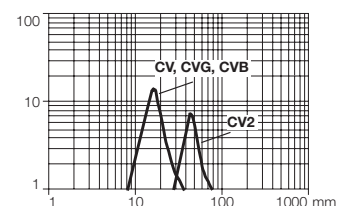
### Wiring diagram



Convergent mode sensors are equipped with a lens before the emitter diode that produces a small and intense focal point at a defined distance from the sensor. Similar to diffuse mode sensors, the light reflected by the target is evaluated. Convergent mode sensors are ideal for detection of small targets or colour marks and edge guiding or positioning control of transparent materials. The targets must always be within the focal depth of the sensors. The focal depth is defined as the area before or behind the focal point within which the object can be detected. Based on the intense light concentration in the focal point, convergent mode sensors are capable of detecting targets with a low reflectivity.

### Excess gain curve

Excess gain in relation to the distance



<b>Type</b>	SM312CV
Ident-No.	3805000
<b>Operating mode</b>	Convergent mode
Type of light	red
Wave length	650 nm
Focal distance	16 mm
Operating temperature	-20 ...+ 70 °C
<b>Rated operational voltage (DC) U<sub>B</sub></b>	10... 30 VDC
Rated operational current (DC) I <sub>B</sub>	≤ 150 mA
No-load current I <sub>0</sub>	≤ 25 mA
Short-circuit protection	yes, cyclic
Reverse polarity protection	yes
Output function	normally open, PNP/NPN
Switching frequency	≤ 500 Hz
Max. switch-on delay	≤ 100 ms
Overload trip point	>220 mA
<b>Housing style</b>	rectangular; Mini Beam
Dimensions	53,3 x 12,3 x 30,7 mm
Housing material	plastic, PBT
Lens	Kunststoff, Acryl
Wiring	cable
Cable length	2 m
Cable cross section	4 x 0,5 mm <sup>2</sup>
Degree of protection	IP67
<b>Switching status indication</b>	LED red
Excess gain indication	LED red flashing