

Diffuse Mode Sensor

QS18VP6DBQ1

Type	QS18VP6DBQ1
ID	3077383
Optical data	
Function	Proximity switch
Operating mode	Diffuse
Light type	IR
Wavelength	940 nm
Range	0...450 mm
Operating voltage U _s	
Switching frequency	≤ 800 Hz
Readiness delay	≤ 100 ms
Response time typical	< 0.6 ms
Setting option	Potentiometer
Design	
Housing material	Plastic, ABS
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-20...+70 °C
Protection class	IP67
Excess gain indication	LED
Tests/approvals	

- LED all-round visible
- Sensitivity adjusted via potentiometer

Functional principle

Identical to retro-reflective sensors, emitter and receiver circuitry are incorporated in the same housing of the diffuse mode sensors. However, diffuse mode sensors do not detect the interruption of the light beam but the reflection of the target. A target is detected if it reflects sufficient light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance

