

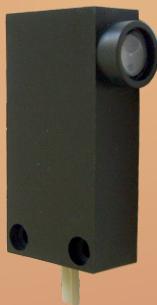
"ESA Control" Ltd



DIFFUSE  
PHOTOELECTRIC SENSORS

for alternating current

AC



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fig.1

### Application and operating principle

The M18 presented diffuse photoelectric sensor is used for switching two-wire alternating current circuits. The principle of action consists in emitting and receiving a modulated light ray in the infrared area of the spectrum. When an object passes in front of the sensor active surface its output switches from one state to another. The output indicator is on, when there is an object in front of the sensor. The nominal switching distance of the sensor is measured by the help of white cardboard with size 100x100 mm.

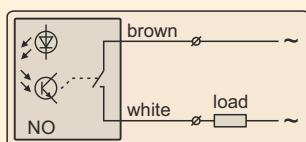
### Technical parameters

Operating distance, $S_n$	0...200 mm
Supply voltage, $U_s$	90...240 VAC / 40...60Hz (U1) 40...100 VAC / 40...60Hz (U2) 24 ... 50 VAC / 40...60Hz (U3)
Residual voltage (max), $U_{res}$	4.4 VAC
Load current (max), $I_{out}$	10...300 mA
Current consumption, $I_s$	3.0 mA
Switching frequency (max), $f_o$	10 Hz
Spectrum area of operating	850...950 nm
Operating ambient illumination	10'000 Lx
Operating temperature range, $T_{amb}$	-25°...+70°C
Degree of protection	IP54
Output light indicator	LED
Connection cable	2x0.5 mm <sup>2</sup> , L=2 m
Overall dimensions	M18x1, L=65 mm
Housing - plastic	PVC

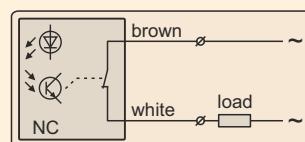
### Type parameters

Type	Supply voltage	Output function	Scheme of connection
ODP1-18.71.FU1	90...240 VAC	NO	71
ODP1-18.72.FU1	90...240 VAC	NC	72
ODP1-18.71.FU2	40...100 VAC	NO	71
ODP1-18.72.FU2	40...100 VAC	NC	72
ODP1-18.71.FU3	20...50 VAC	NO	71
ODP1-18.72.FU3	20...50 VAC	NC	72

### Schemes of connection



Scheme 71



Scheme 72



fig.1

### Application and operating principle

The ODP3-60.A presented diffuse photoelectric sensor is used for switching two-wire alternating current circuits. The principle of action consists in emitting and receiving a modulated light ray in the infrared area of the spectrum. When an object passes in front of the sensor active surface its output switches from one state to another. The output indicator is on, when there is an object in front of the sensor. The nominal switching distance of the sensor is measured by the help of white cardboard with size 100x100 mm.

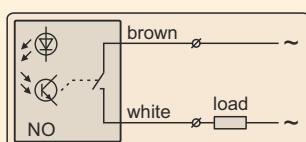
### Technical parameters

Operating distance, $S_n$	0...200 mm
Supply voltage, $U_s$	90...240 VAC / 40...60Hz (U1) 40...100 VAC / 40...60Hz (U2) 24 ... 50 VAC / 40...60Hz (U3)
Residual voltage (max), $U_{res}$	4.4 VAC
Load current (max), $I_{out}$	10...300 mA
Current consumption, $I_s$	3.0 mA
Switching frequency (max), $f_o$	10 Hz
Spectrum area of operating	850...950 nm
Operating ambient illumination	10'000 Lx
Operating temperature range, $T_{amb}$	-25°...+70°C
Degree of protection	IP54
Output light indicator	LED
Connection cable	2x0.5 mm <sup>2</sup> , L=2 m
Overall dimensions	36x15x60 mm
Housing - plastic	PA6 (Polyamide)

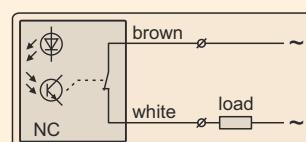
### Type parameters

Type	Supply voltage	Output function	Scheme of connection
ODP3-60.71.FAU1	90...240 VAC	NO	71
ODP3-60.72.FAU1	90...240 VAC	NC	72
ODP3-60.71.FAU2	40...100 VAC	NO	71
ODP3-60.72.FAU2	40...100 VAC	NC	72
ODP3-60.71.FAU3	20...50 VAC	NO	71
ODP3-60.72.FAU3	20...50 VAC	NC	72

### Schemes of connection



Scheme 71



Scheme 72



fig.1

### Application and operating principle

The ODP3-64 presented diffuse photoelectric sensor is used for switching two-wire alternating current circuits. The principle of action consists in emitting and receiving a modulated light ray in the infrared area of the spectrum. When an object passes in front of the sensor active surface its output switches from one state to another. The output indicator is on, when there is an object in front of the sensor. The nominal switching distance of the sensor is measured by the help of white cardboard with size 100x100 mm.

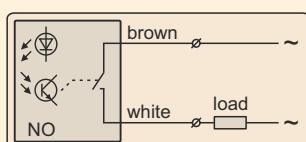
### Technical parameters

Operating distance, $S_n$	10...200 mm
Supply voltage, $U_s$	90...240 VAC / 40...60Hz (U1) 40...100 VAC / 40...60Hz (U2) 24 ... 50 VAC / 40...60Hz (U3)
Residual voltage (max), $U_{res}$	4.4 VAC
Load current (max), $I_{out}$	10...300 mA
Current consumption, $I_s$	3.0 mA
Switching frequency (max), $f_o$	10 Hz
Spectrum area of operating	850...950 nm
Operating ambient illumination	10'000 Lx
Operating temperature range, $T_{amb}$	-25°...+70°C
Degree of protection	IP54
Output light indicator	LED
Connection cable	2x0.5 mm <sup>2</sup> , L=2 m
Overall dimensions	30x15x64 mm
Housing - plastic	PA6 (Polyamide)

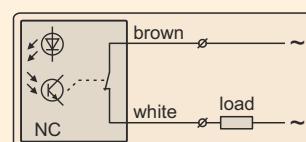
### Type parameters

Type	Supply voltage	Output function	Scheme of connection
ODP3-64.71.F2U1	90...240 VAC	NO	71
ODP3-64.72.F2U1	90...240 VAC	NC	72
ODP3-64.71.F2U2	40...100 VAC	NO	71
ODP3-64.72.F2U2	40...100 VAC	NC	72
ODP3-64.71.F2U3	20...50 VAC	NO	71
ODP3-64.72.F2U3	20...50 VAC	NC	72

### Schemes of connection

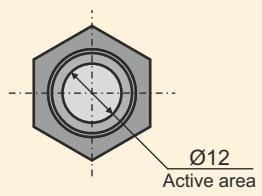
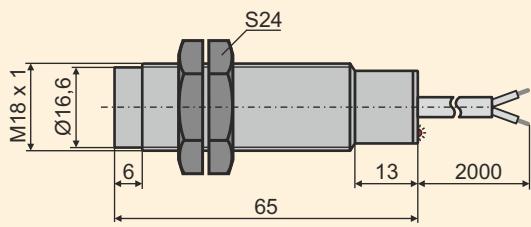


Scheme 71

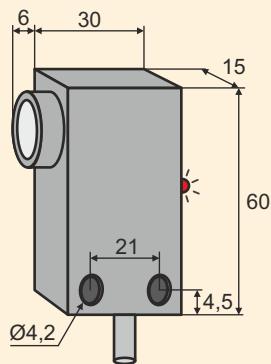


Scheme 72

M18



ODP3-60.A



ODP3-64

