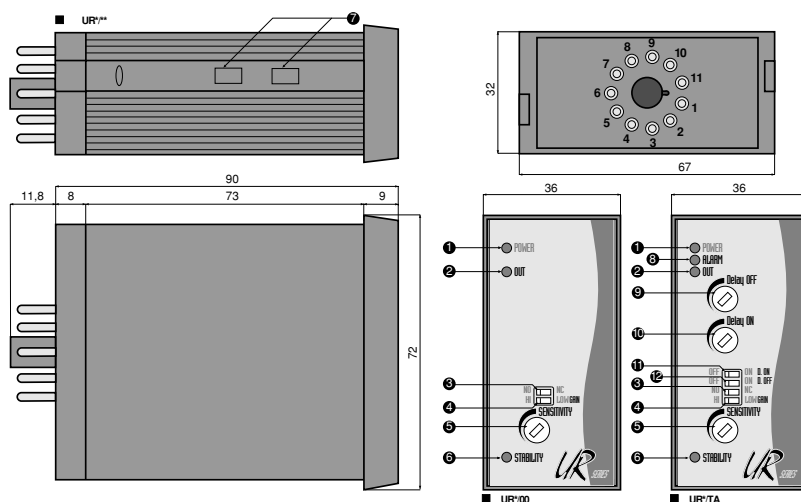


SERIE UR

Photoelectric sensors with relay output for harsh environment - DC

- ◆ System includes control unit and miniature sensors (DGE-DGR)
- ◆ Photoelectric sensors IP68 for applications in harsh environment
- ◆ Supply voltage AC or DC
- ◆ Relay output and relay alarm output
- ◆ Double timer with independent adjustments
- ◆ Sensitivity adjustment
- ◆ Complete protection against electrical damage
- ◆ Alignment (stability), supply voltage, alarm and output state LED indicators
- ◆ Selectable gain level (HI-LO)
- ◆ Possibility of mounting on panel
- ◆ Sensing distance 60m (HI), 30m (LO)


DIMENSIONAL DRAWING

Key

- 1 Green LED (supply)
 - 2 Red LED (output state)
 - 3 NO/NC output selection (Dip-switch)
 - 4 Gain level selection (Dip-switch)
 - 5 Sensitivity adjustment trimmer
 - 6 Green LED (stability)
 - 7 Fixing slots for mounting on panel using included brackets
 - 8 Red LED (alarm)
 - 9 Delay OFF adjustment trimmer
 - 10 Delay ON adjustment trimmer
 - 11 Delay ON (on/off) Dip-switch selection
 - 12 Delay OFF (on/off) Dip-switch selection
- Holes dimensions for mounting on panel (68x33mm)
Undecal socket (STZ3) supplied separately

Control unit UR

Control unit with UNDECAL socket (DIN rail mounting possible), is available in DC or AC voltage, relay output, with or without timer function. The unit allows the mounting of miniature pair of **sensors suitable for very harsh environments (DG serie).**

Timer function

Timer function, selectable by the frontal dip-switch panel and correspondent trimmer, is available with energizing delay, de-energizing delay or both.

LED indicators

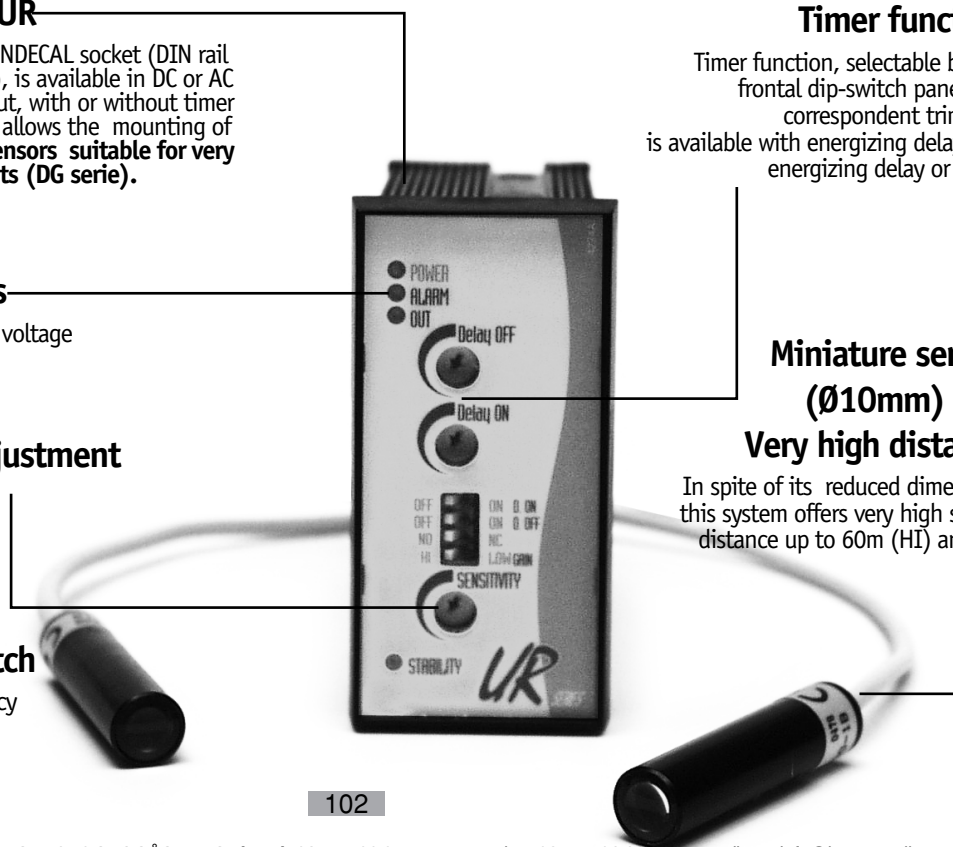
output state, supply voltage and alarm output

Sensitivity adjustment
Gain selection Dip-switch

For the greatest regulation accuracy and for selection of suitable functioning system (30-60m).

Miniature sensors (Ø10mm) IP68 Very high distances

In spite of its reduced dimensions, this system offers very high sensing distance up to 60m (HI) and 30m (LO).



ORDERING SYSTEM

serie	amplifier unit (Undecal mounting)	supply	supply voltage 24Vdc	supply voltage 220Vac	supply voltage 110Vac	supply voltage 24Vac	URA / OA	amplifier unit	output type	timer function
	UR		A	B	C	D			0	without timer
									A	with timer
									O	without timer
									T	with timer

2.1

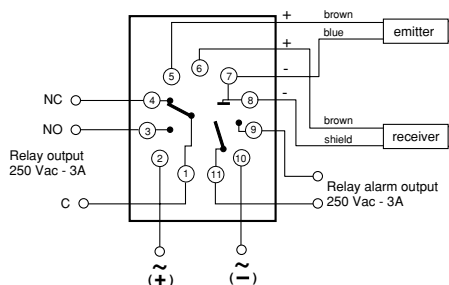
SPECIFICATIONS

Model	URA/**	URB/**	URC/**	URD/**
Type	DC	AC	AC	AC
Operating voltage	24Vdc	220Vac	110Vac	24Vac
Frequency	-	50 - 60Hz	50 - 60Hz	50 - 60Hz
Ripple	≤10%	-	-	-
Voltage tolerance	±20%	±20%	+10% / -15%	+10% / -15%
No-load supply current	≤100mA	1,5VA	1,5VA	1,5VA
Operating output	relay NO/NC			
Alarm output	relay NO			
Max. output voltage	250V			
Max. output current	3A (resistive load)			
Switching frequency	10Hz			
Electrical life	1,5x10 ⁵ operations			
Timer functions	3s delay ON and delay OFF selectable with Dip-switch and adjustables separately			
Operating time (relay de-energized)	40ms max.			
Reset time (relay energized)	40ms max.			
Temperature range	-10°....+50°C (without freeze)			
Protection degree (DIN 40 050)	IEC IP20			
LED indicators	green (supply), red (output state), green (stability), red (alarm)			
Housing material	Noryl 90 V-0			
Weight (approx.)	150g			

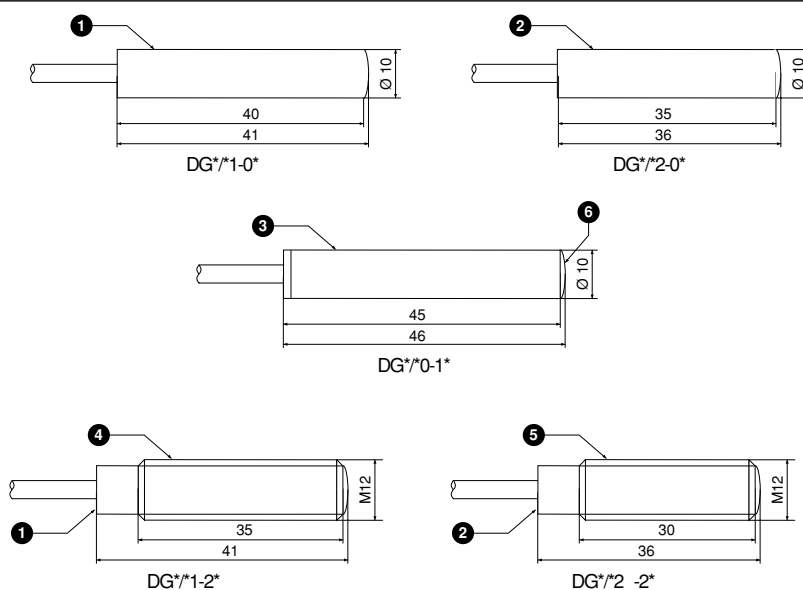
WIRING DIAGRAMS

Undecal socket

UR*/**



DIMENSIONAL DRAWING



Key

- 1 Polycarbonate housing and lens 41mm
- 2 Polycarbonate housing and lens 36mm
- 3 Metal housing 46mm (black anadized aluminium)
- 4 M12 Metal housing 41mm
- 5 M12 Metal housing 36mm
- 6 Glass lens

Cable 1x0,14mm² + shield, Ø3,1mm, PVC (**DGR**)

Cable 2x0,22mm², Ø3,75mm, PVC (**DGE**)

ORDERING SYSTEM

		D G E / 0 0 - 0 A		
serie				through-beam
miniature sensor Ø10mm	DG			cable lenght
model			A	5m
emitter	E		B	10m
receiver	R		C	15m
supply				materials
emitter and receiver with preamplifier	O		0	polycarbonate Ø10mm
			1	aluminium (glass lens) Ø10mm
			2	M12 nickel-plated steel
				housing lenght
			0	46mm ⁽¹⁾
			1	41mm ⁽²⁾
			2	36mm ⁽²⁾

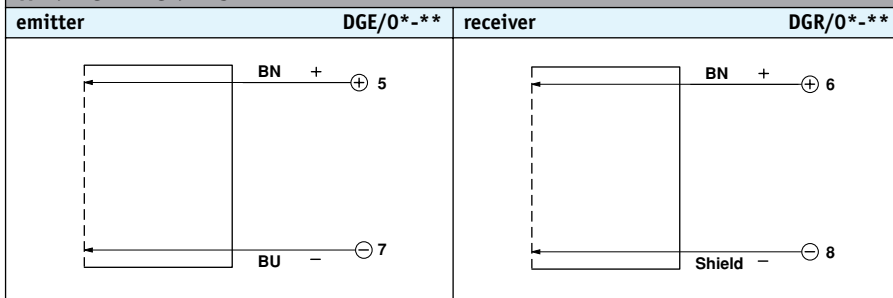
1) only available in aluminium; (2) only available with plastic housing; (3) only available without preamplifier.

SPECIFICATIONS

Model	DG*/1-0*	DG*/2-0*	DG*/3-0*	DG*/0-1*	DG*/1-2*	DG*/2-2*
Housing lenght	41mm	36mm	25mm	46mm	41mm	36mm
Sensing distance	75m	32m	not available	60m	75m	32m
Emission	infrared (880nm)					
Operating voltage	from UR unit					
Beam angle	±5°*	±10°*	not available	±5°*	±5°*	±10°*
Interference to external light	20000 lux					
Temperature range	-20°...+60°C					
Protection degree (DIN 40 050)	IEC IP67					
Housing type	ø10mm				M12	
Housing material	polycarbonate			anodized aluminium	nickel-plate steel	
Lens material	glass	polycarbonate (PC)			glass	PC
Cable exit material	PVC					

(1) see characteristic curves

WIRING DIAGRAMS



CHARACTERISTIC CURVES

