

Switching Unit

ESA 25 (A = Installation Housing)

ESP 25 (P = Printed Circuit Board)

- IP65 Protection Class (ESA 25)
- Installation Housing
- Redundant signal evaluation

Switching Units ESA

Connected Sensors are monitored for changes in the continuously flowing no-load current. In the non-activated condition both relays are energised.

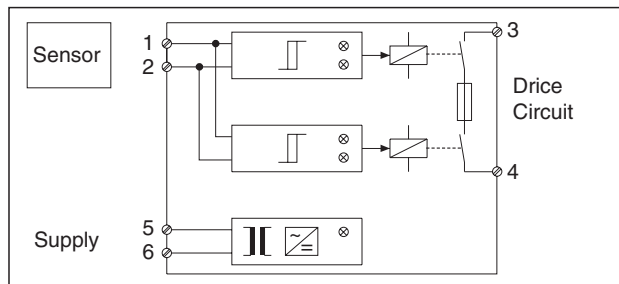
ESA 25, ESP 25

When one or more Sensors are activated

- the total resistance sinks towards zero ohm
- if the value falls below the defined threshold
- the relays are de-energised
- the yellow LED illuminates

Wiring Diagram

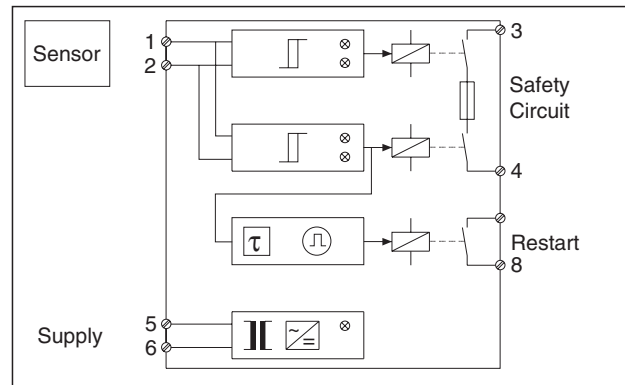
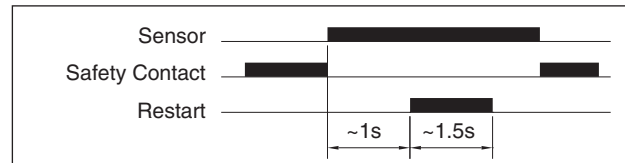
For each sensor two redundant channels are available. The two output contacts are connected in series and protected with a fuse.



ESA 25 / ESP 25

ESAS 25, ESPS 25 / Stop-Restart

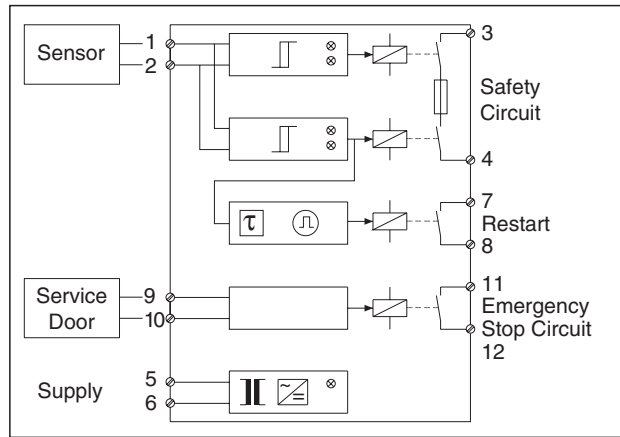
- Basic function as ESA 25/ESP 25
- Additional when the Sensor is activated for 1 sec. the third relay contact closes for 1.5 sec. (restart)



ESAS 25 / ESPS 25

ESAT 25, ESPT 25 / Service Door

- Basic function as ESA 25/ESP 25
- Additional input for service door function
- Output for emergency stop circuit



ESAT 25 / ESPT 25

Connection

- The maximum length of the Sensor must not exceed 50 metres
- Maximum surface area 5 m²
- Multiple Sensors are to be connected in series
- The total resistance must not exceed 8.2 kOhm

Important:

- the installed fuse is absolutely necessary
 - to protect the relay contacts from «welding» when overloaded
- Suppressors (Type 220 Ohm/0.1 µF) are to be connected across inductive loads



The assembly and operating instructions are described in the Assembly and Operating Manuals supplied with the product.

Technical data

	ESA 25	ESP 25
Housing	ABS grey	–
	transparent cover	–
Dimensions	80 x 110 x 65	70 x 94
- Protection Class	IP65	IP00
- Cable gland	3 x PG9	–
Supply Voltage	230 VAC (+10/-20%)	
	with isolating trafo	
	115 VAC (+10/-20%)	
	with isolating trafo	
	24 VADC (+10/-10%)	
Frequency Range	50/60 Hz	
Power Consumption	max. 4 VA	
Sensor Inputs		
- Input resistance	5 kOhm to 12 V (internally)	
- Input voltage with 8.2kOhm	approx. 7.5 VDC	
Signal Output Relay		
- Switching Capacity	2 A/250 VAC	
- Reaction time	< 15 ms	
- Reaction time by interrupt	< 15 ms	
Indicators	LED 3 mm	
- Operation	Green	
- Safety Shutdown	Yellow (2 off)	
- Error (interrupt)	Red (2 off)	
Temperature Range	-20°C to 55°C	
Testing Basis	GS-BE 17 and ZH 1/494	

Additional Data

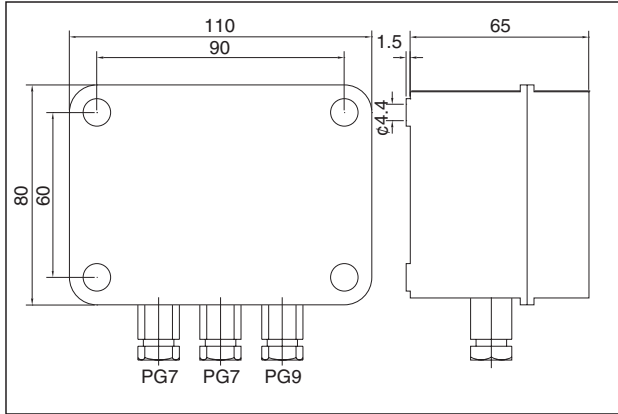
	ESA 25	ESP 25
Function «Restart»	see ESA	
Housing	see ESA	
Cable Gland	1 x PG7, 3 x PG9	–
Relay fro Restart Function		
- Switching Capacity	2A/250VAC	
- Time Delay	1...1.5sec	
- Impulse Time	1.5...2sec	
Function «Service Door»	ESAT25	ESPT25
Housing	PVC grey	
- Dimensions	105 x 105 x 66	94 x 94 x 32
- Protection Class	IP55	IP00
- Cable Gland	4 x PG7, 1 x PG9	–
Relay for Service Door		
- Switching Capacity	2A/250 VAC	

Status LED

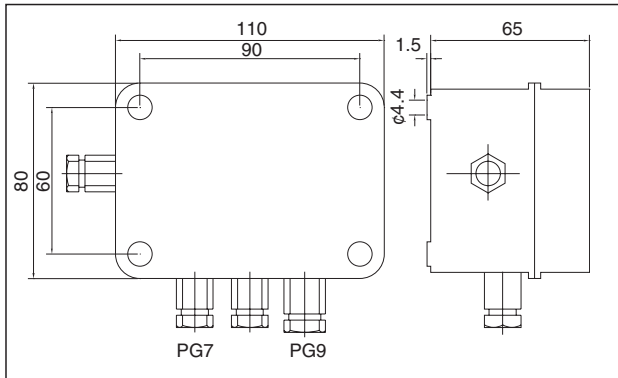
Supply	Function	Green	Yellow	Red	Output
Off	Not ready				open
On	Ready				closed
On	Sensor activated				open
On	Short-circuit or test				open
On	Cable breakage				open

Dimension Sheets

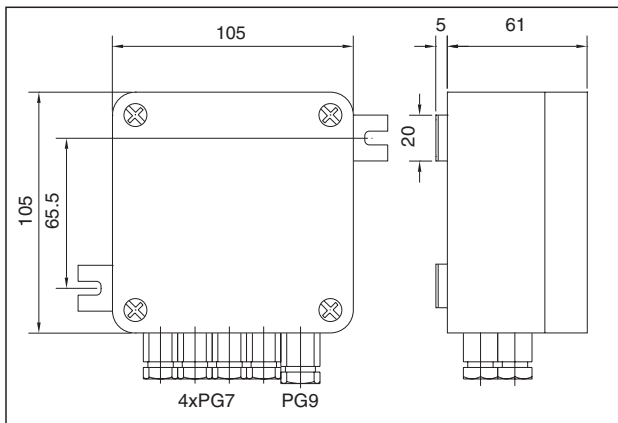
Installation Housing



ESA 25



ESAS 25

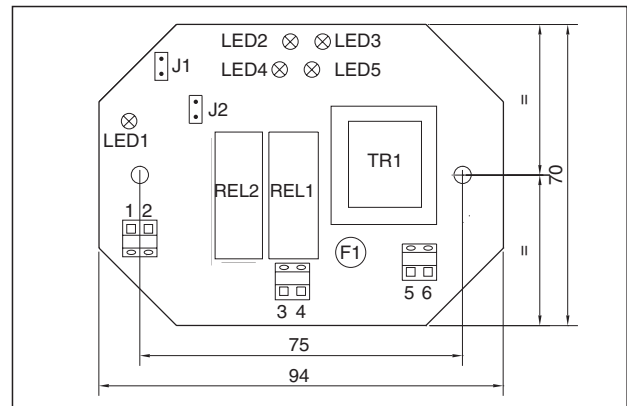


ESAT 25

Connections, Component Layout

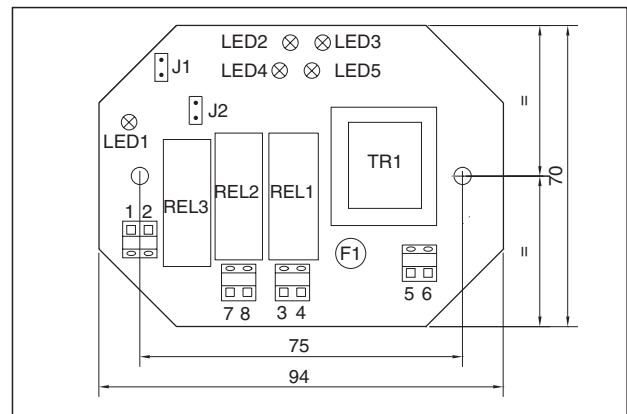
LED1	Operating indicator (green)
LED2, LED4	Function indicator (yellow)
LED3, LED5	Error indicator (red)
REL1, REL2	Switching circuit, working contacts switched in series
F1	Fuse 2A slow, relay contact protection
J1	Test contact for REL1
J2	Test contact for REL2

Print Version



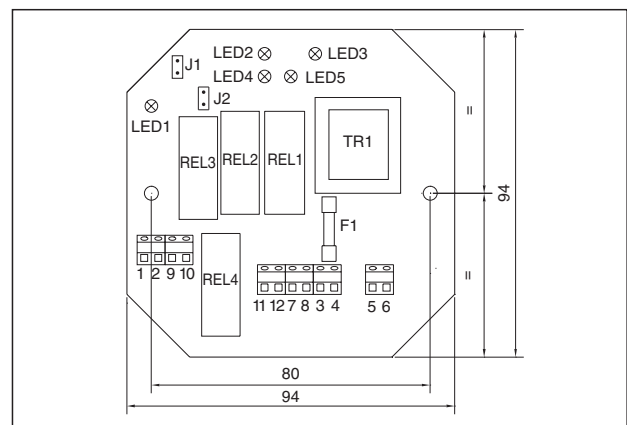
ESA/ESP

Terminals/Connection Layout:
3,4 Safety Circuit – 5,6 Supply – 1,2 Sensor



ESAS/ESPS

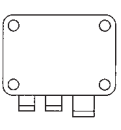
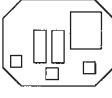
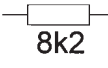
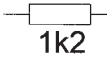



Terminals/Connection Layout:
3,4 Safety Circuit – 7,8 Restart – 5,6 Supply – 1,2 Sensor



ESAS/ESPS

Terminals/Connection Layout:
3,4 Safety Circuit – 7,8 Restart – 5,6 Supply – 1,2 Sensor
– 9,10 Input Service Door – 11,12 Output Service Door

Overview ESA/ESP

Total Programme							
ESA 25							
ESA 25-R							
ESA 25-D							
ESAS 25							
ESAS 25-R							
ESAS 25-D							
ESAT 25							
ESAT 25-R							
ESAT 25-D							
ESP 25							
ESP 25-R							
ESP 25-D							
ESPS 25							
ESPS 25-R							
ESPS 25-D							
ESPT 25							
ESPT 25-R							
ESPT 25-D							
ESZ-25							
ESZ-25.D							
ESZS-25							
ESZS-25-D							

Order Information

e. g. ESPT 25-230 AC

Type _____

- ESA Standard Unit
- ESP Standard Print Version
- ESAS Stop-Restart
- ESPS Stop-Restart Print Version
- ESAT Service Door
- ESPT Service Door Print Version
- ESZ plugable

Supply Voltage _____

- 24VADC
- 115VAC
- 230VAC



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