

Data sheet

Mini float switch in brass with terminal housing

Order key

M60 . 1 . A1 . B4 . 100 . 200 . 10 . 01 . 8 . 600

Type mini float switch M60

Material tube
brass tube ø8 --1

Function switching point A 24V/150mA
 closes on level rise -- A1
 opens on level rise -- A2
 closes on level drop -- A3
 opens on level drop -- A4
 change over contact --A5

Switching function point B 230VAC/1A (1 switching point)
 24VDC/150mA (2 switching point)
 closes on level rise -- B1
 opens on level rise -- B2
 closes on level drop -- B3
 opens on level drop -- B4
 change over contact --B5
Comment:
 For a device with only one
 switching point please use
 switching point B
Example: M60.1.B4.100.01.01.8

Switching point SPA
 in mm according to customer's indication

Switching point SPB
 in mm according to customer's indication

Connection
terminal housing --- 10

Optional

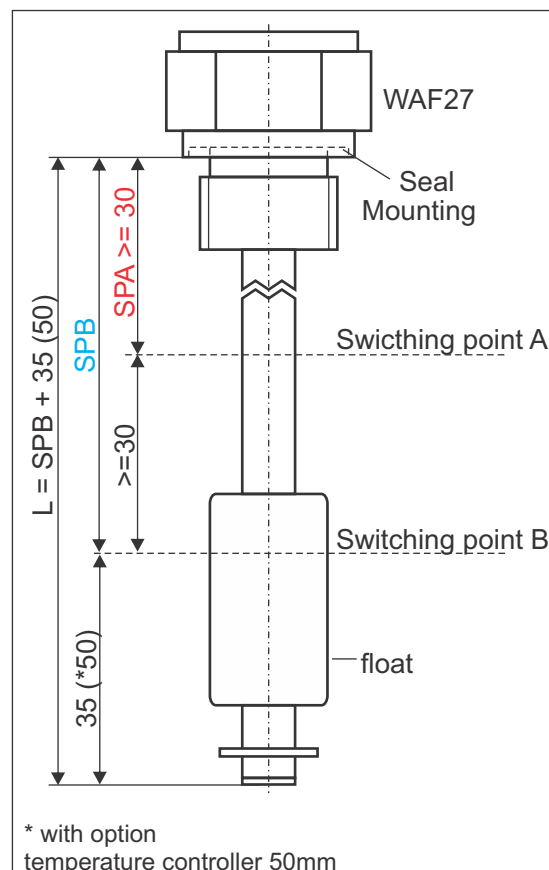
Temperature switch:
 Technical data
 60°C n. c. contact --- 600
 65°C n. c. contact --- 650
 70°C n. c. contact --- 700
 75°C n. c. contact --- 750
 85°C n. c. contact --- 850

Temperature sensor PT100
 Technical data
 PT100 2 wire --- PT100
 PT100 3 wire --- PT103
 PT100 4 wire --- PT104

Temperature sensor PT1000
 Technical data
 PT1000 2 wire --- Pt1000

Float
 ø17,8x32mm material NBR --- 8

Mounting material alu / PA6
 screw connection 1/2" ----- 02
 oval flange Lk55 ----- 23
 screw connection 3/4" ----- 13
 round flange ø74 Lk60 ----- 46
 screw connection M20x1,5 ----- 01
 screw connection 1" ----- 22
 screw connection M24x1,5 ----- 33
 screw connection M22x1,5 ----- 24

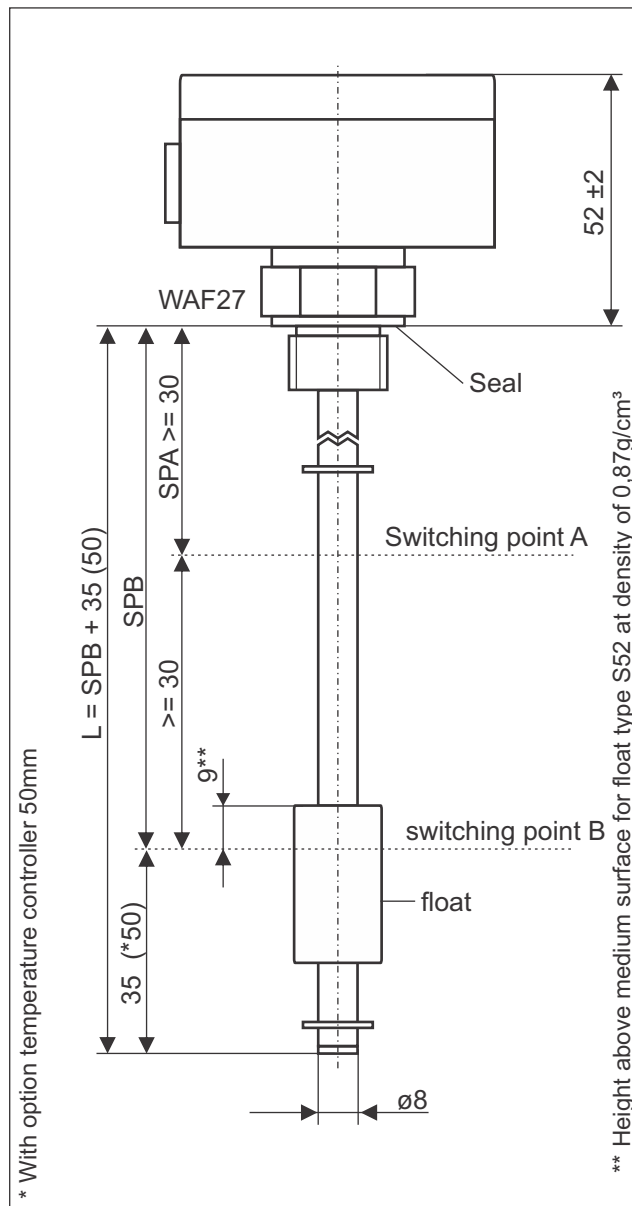


Data sheet

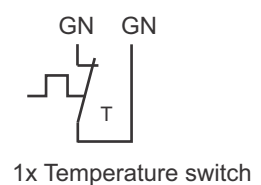
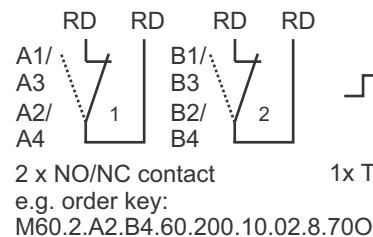
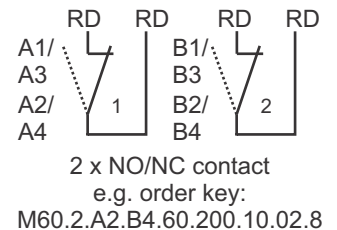
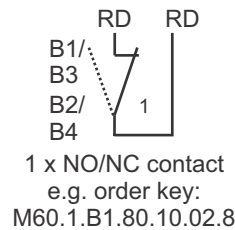
Mini float switch in brass with terminal housing

Type: M60...10.02.8

Mounting 1/2"



Example for Terminal diagrams



Technical data:

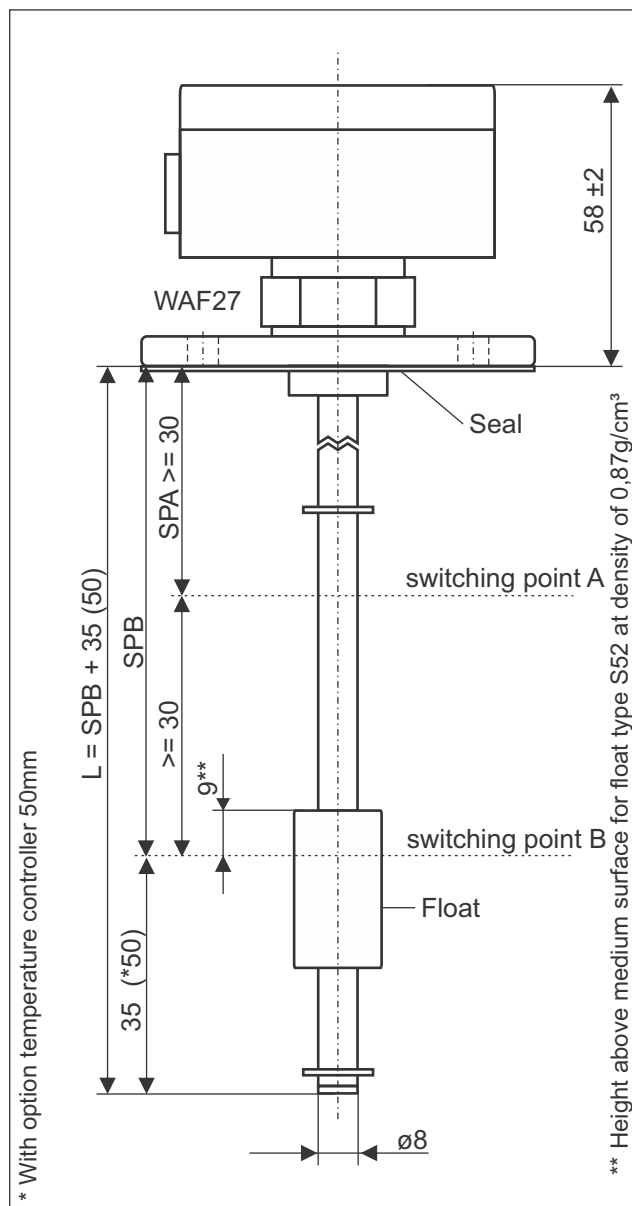
Connection:	terminal connection 1,5mm ² in the housing, cable entry at the housing M16x1,5, housing material aluminium, colour grey
Mounting:	thread 1/2", material aluminium
Mounting position:	vertical ± 10°
Seal:	material NBR
Sliding tube:	ø8mm material brass, length and material according to customer specification
Float:	ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contacts n.o. contacts / n.c. contacts, function bistable
Switching voltage:	max. 230VAC for one switching point; for two switching point max. 24VDC
Switching current:	1A for one switching point; for two switching points 150mA
Temperature switching:	optional, power rating see page 16
Temperature sensor:	optional, power rating see page 16
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -15°C to 70°C above mounting
Protection rating:	IP 65

Data sheet

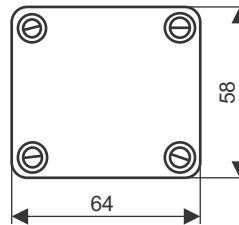
Mini float switch in brass with terminal housing

Type: M60...10.23.8

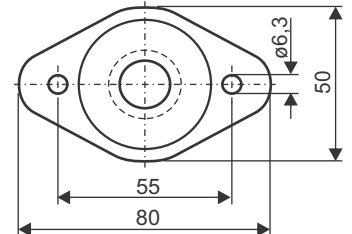
Mounting oval flange



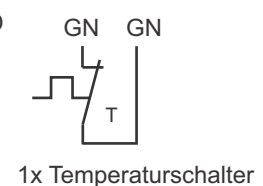
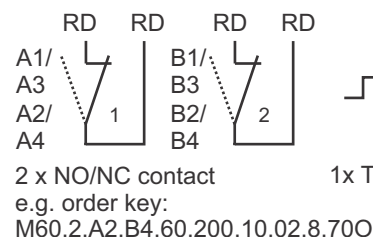
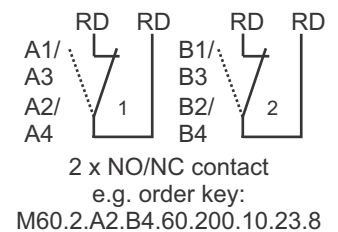
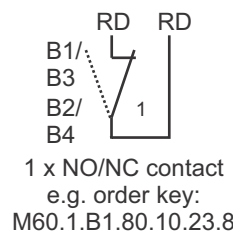
View A



Drilling pattern



Example for terminal diagrams



Technical data:

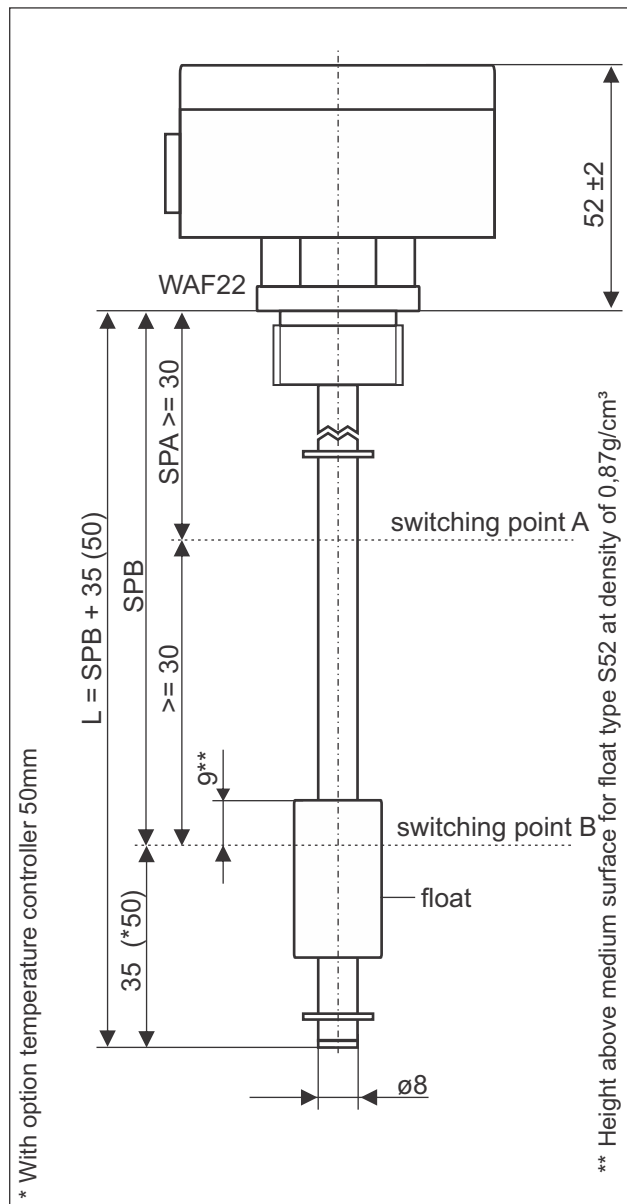
Connection:	terminal connection 1,5mm ² in the housing, cable entry at the housing M16x1,5, housing material aluminium, colour grey
Mounting:	oval flange, material PA6 GF 30 (Makrolon)
Mounting position:	vertical ± 10°
Seal:	material NBR
Sliding tube:	ø8mm material brass, length and material according to customer specification
Float:	ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contacts n.o. contacts / n.c. contacts, function bistable
Switching voltage:	max. 230VAC for one switching point; for two switching point max. 24VDC
Switching current:	1A for one switching point; for two switching points 150mA
Temperature switching:	optional, see performance data
Temperature sensor:	optional, see performance data
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -15°C to 70°C above mounting
Protection rating:	IP 65

Data sheet

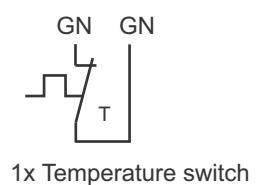
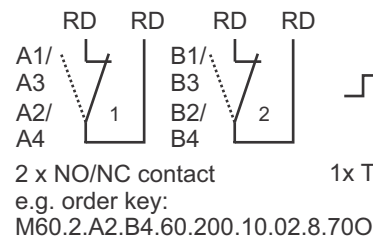
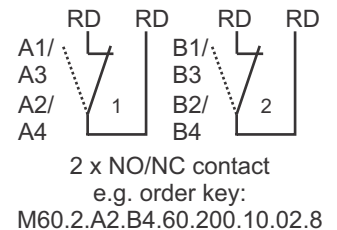
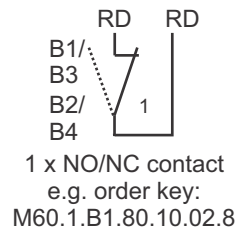
Mini float switch in brass with terminal housing

Type: M60...10.13.8

Mounting 3/4"



Example for Terminal diagrams



Technical data:

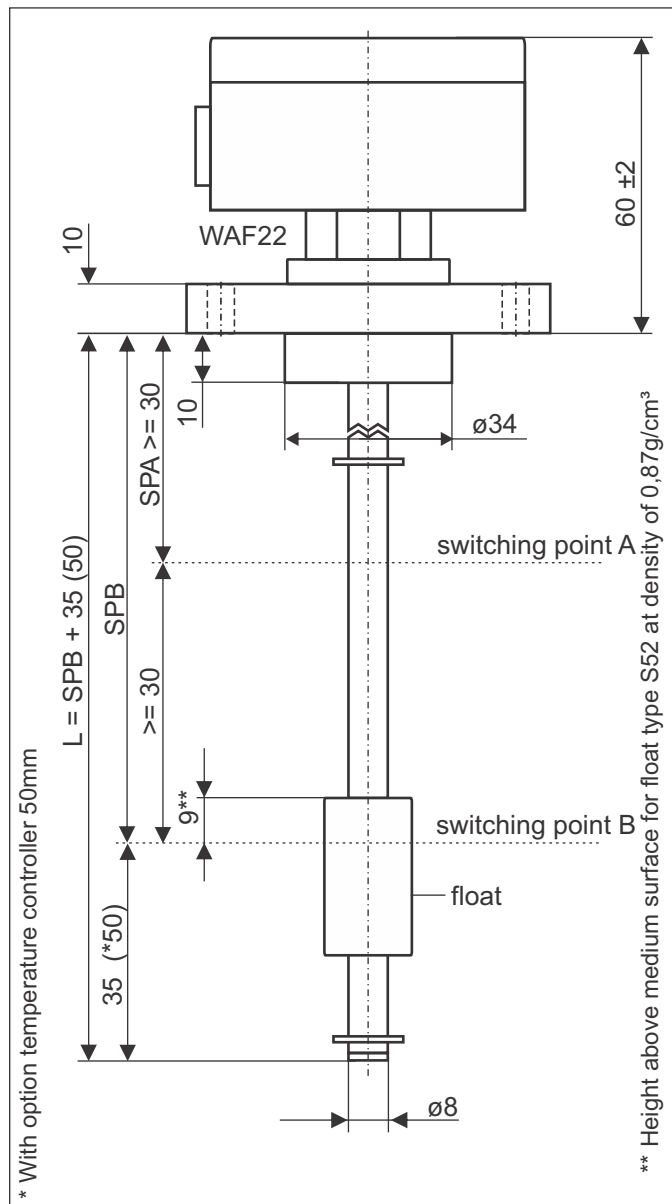
Connection:	terminal connection 1,5mm ² in the housing ,64x58x35mm (wxdxh) cable entry at the housing M16x1,5, housing material aluminium, colour grey thread 3/4", material aluminium
Mounting:	vertical ± 10°
Mounting position:	vertical ± 10°
Sliding tube:	ø8mm material brass, length and material according to customer specification
Float:	ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contacts n.o. contacts / n.c. contacts, function bistable
Switching voltage:	max. 230VAC for one switching point; for two switching point max. 24VDC
Switching current:	1A for one switching point; for two switching points 150mA
Temperature switching:	optional, see performance data
Temperature sensor:	optional, see performance data
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -15°C to 70°C above mounting
Protection rating:	IP 65

Data sheet

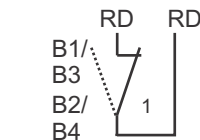
Mini float switch in brass with terminal housing

Type: M60...10.46.8

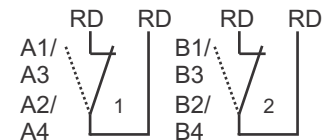
Mounting round flange



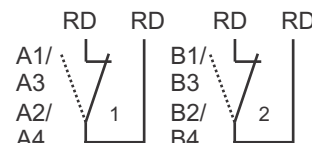
Example for Terminal diagrams



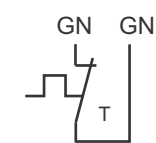
1 x NO/NC contact
e.g. order key:
M60.1.B1.80.10.02.8



2 x NO/NC contact
e.g. order key:
M60.2.A2.B4.60.200.10.02.8

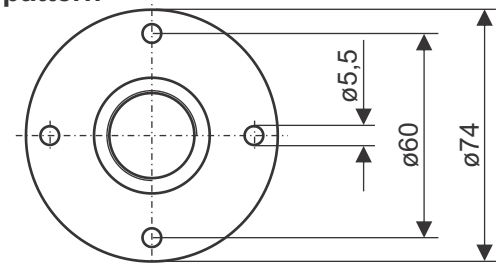


2 x NO/NC contact
e.g. order key:
M60.2.A2.B4.60.200.10.02.8.700



1x Temperature switch

Drilling pattern



Technical data:

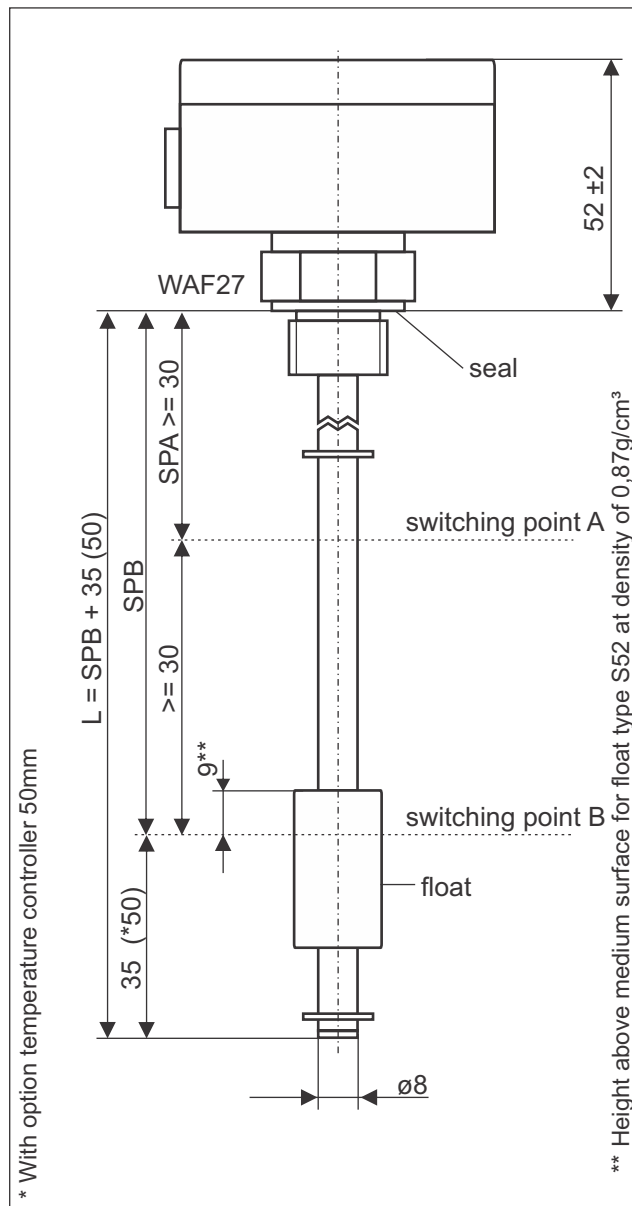
Connection:	terminal connection 1,5mm² in the housing, cable entry at the housing M16x1,5, housing material aluminium, colour grey
Mounting:	round flange AD74mm, material aluminium
Mounting position:	vertical $\pm 10^\circ$
Sliding tube:	$\varnothing 8$ mm material brass, length and material according to customer specification
Float:	$\varnothing 17,8 \times 32$ mm, material NBR, type S52
Reed contact:	max. 2x reed contacts n.o. contacts / n.c. contacts, function bistable
Switching voltage:	max. 230VAC for one switching point; for two switching point max. 24VDC
Switching current:	1A for one switching point; for two switching points 150mA
Temperature switching:	optional, see performance data
Temperature sensor:	optional, see performance data
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -15°C to 70°C above mounting
Protection rating:	IP 65

Data sheet

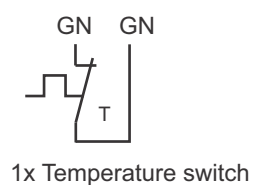
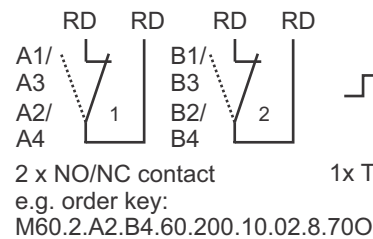
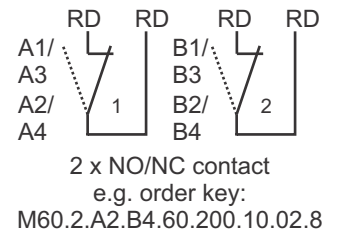
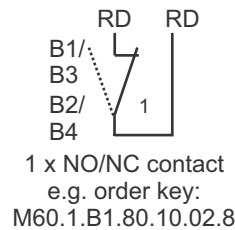
Mini float switch in brass with terminal housing

Type: M60...10.01.8

Mounting M20x1,5



Example for Terminal diagrams



Technical data:

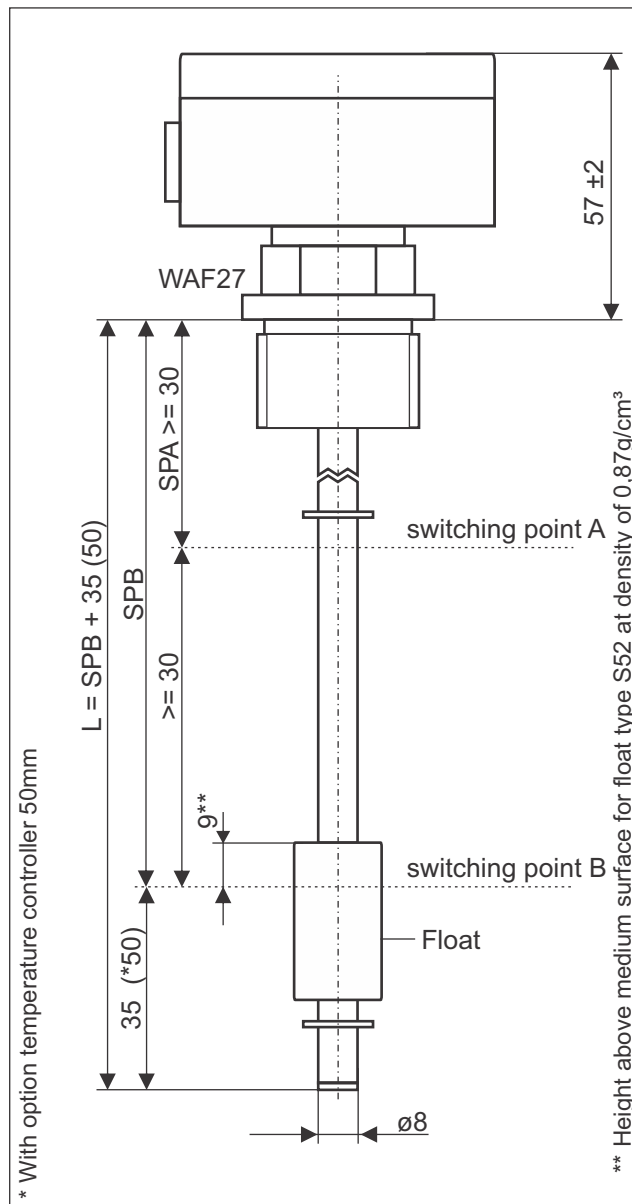
Connection:	terminal connection 1,5mm ² in the housing, cable entry at the housing M16x1,5, housing material aluminium, colour grey
Mounting:	thread M 20x1,5, material aluminium
Mounting position:	vertical ± 10°
Seal:	material NBR
Sliding tube:	Ø8mm material brass, length and material according to customer specification
Float:	Ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contacts, n.o. contacts / n.c. contacts, function bistable
Switching voltage:	max. 230VAC for one switching point; for two switching point max. 24VDC
Switching current:	1A for one switching point; for two switching points 150mA
Temperature switching:	optional, see performance data
Temperature sensor:	optional, see performance data
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -15°C to 70°C above mounting
Protection rating:	IP 65

Data sheet

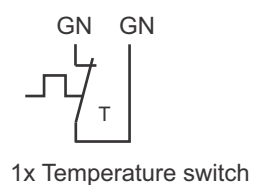
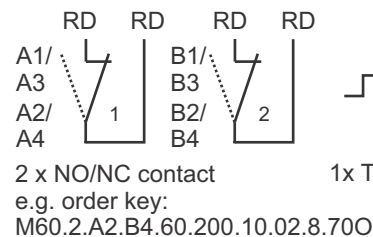
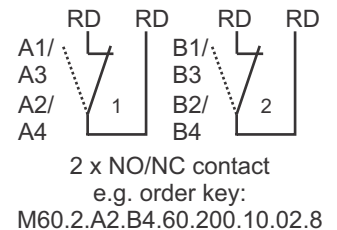
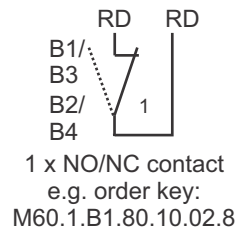
Mini float switch in brass with terminal housing

Type: M60...10.22.8

Mounting 1"



Example for Terminal diagrams



Technical data:

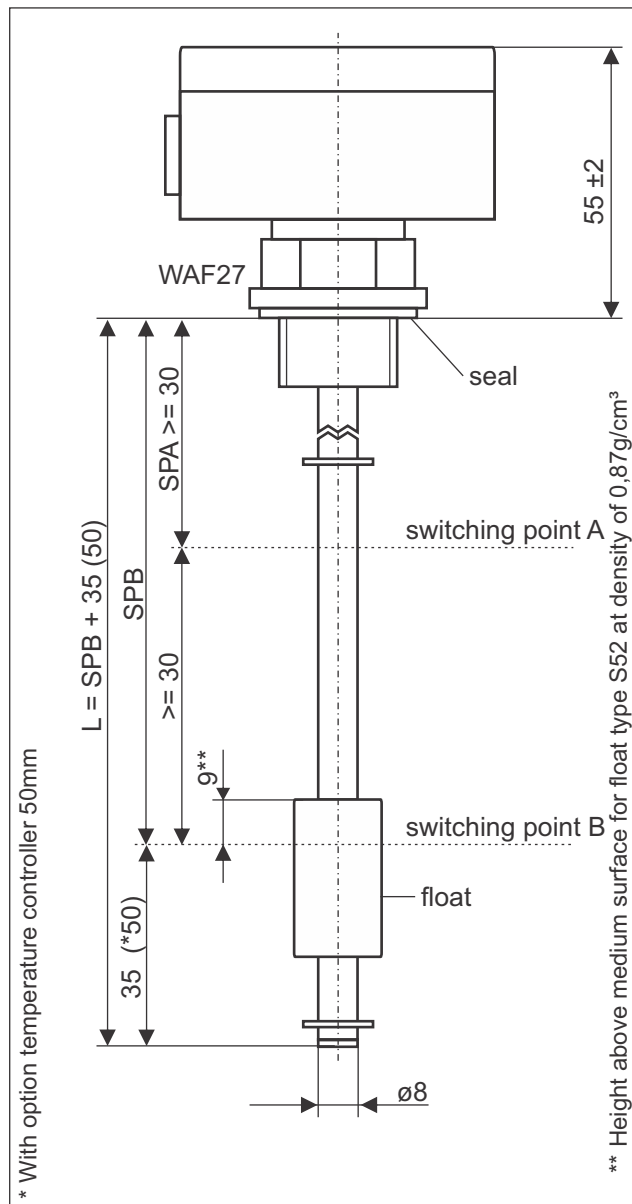
Connection:	terminal connection 1,5mm ² in the housing, cable entry at the housing M16x1,5, housing material aluminium, colour grey
Mounting:	thread 1", material aluminium
Mounting position:	vertical ± 10°
Sliding tube:	ø8mm material brass, length and material according to customer specification
Float:	ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contacts n.o. contacts / n.c. contacts, function bistable
Switching voltage:	max. 230VAC for one switching point; for two switching point max. 24VDC
Switching current:	1A for one switching point; for two switching points 150mA
Temperature switing:	optional, see performance data
Temperature sensor:	optional, see performance data
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -15°C to 70°C above mounting
Protection rating:	IP 65

Data sheet

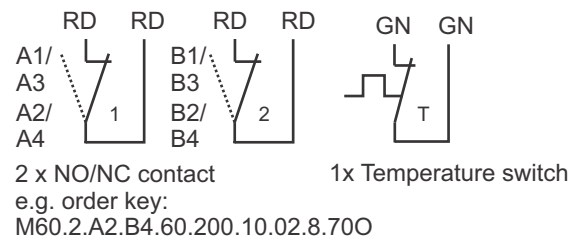
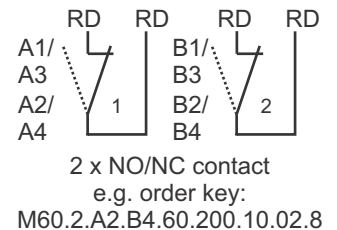
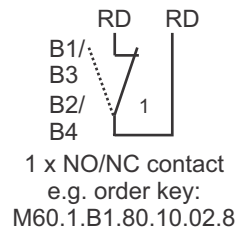
Mini float switch in brass with terminal housing

Type: M60...10.33.8

Mounting M24x1,5



Example for Terminal diagrams



Technical data:

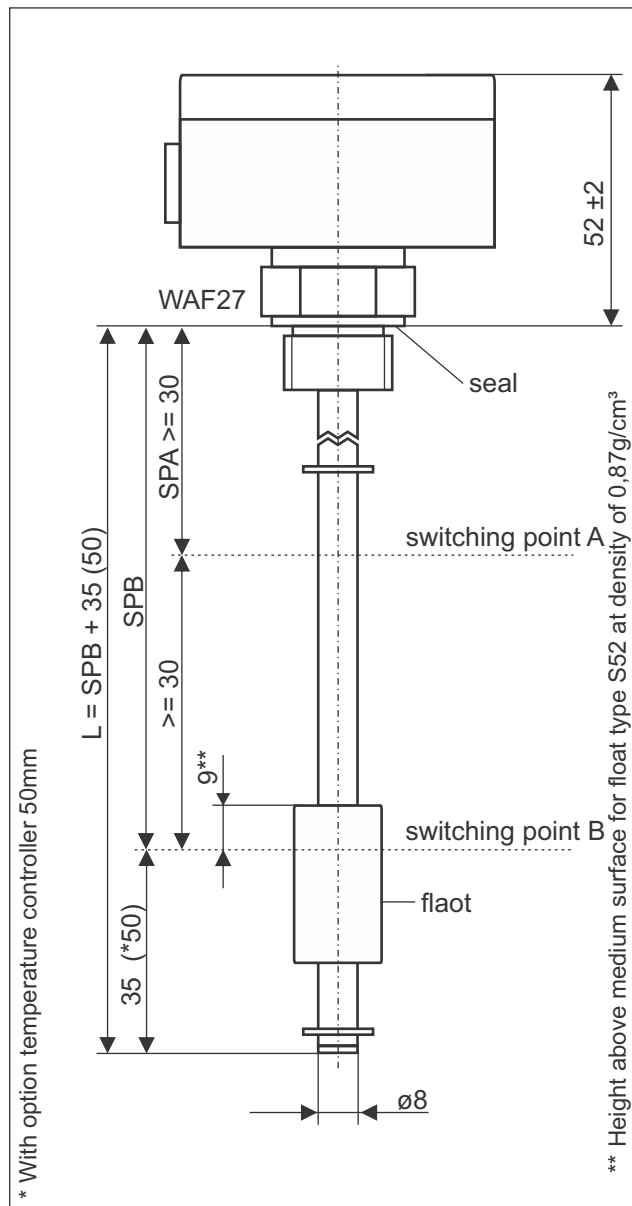
Connection:	terminal connection 1,5mm ² in the housing, cable entry at the housing M16x1,5, housing material aluminium, colour grey
Mounting:	thread M 24x1,5, material aluminium
Mounting position:	vertical ± 10°
Seal:	material NBR
Sliding tube:	Ø8mm material brass, length and material according to customer specification
Float:	Ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contacts n.o. contacts / n.c. contacts, function bistable
Switching voltage:	max. 230VAC for one switching point; for two switching point max. 24VDC
Switching current:	1A for one switching point; for two switching points 150mA
Temperature switching:	optional, see performance data
Temperature sensor:	optional, see performance data
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -15°C to 70°C above mounting
Protection rating:	IP 65

Data sheet

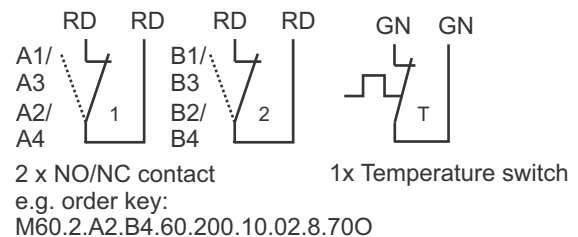
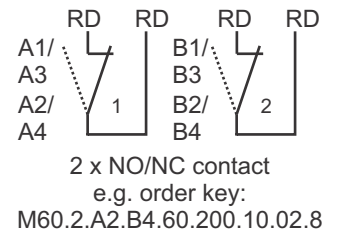
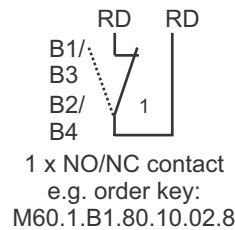
Mini float switch in brass with terminal housing

Type: M60...10.24.8

Mounting M22x1,5



Example for Terminal diagrams



Technical data:

Connection:	terminal connection 1,5mm ² in the housing, cable entry at the housing M16x1,5, housing material aluminium, colour grey
Mounting:	thread M 22x1,5, material aluminium
Mounting position:	vertical ± 10°
Seal:	material NBR
Sliding tube:	ø8mm material brass, length and material according to customer specification
Float:	ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contacts n.o. contacts / n.c. contacts, function bistable
Switching voltage:	max. 230VAC for one switching point; for two switching point max. 24VDC
Switching current:	1A for one switching point; for two switching points 150mA
Temperature switching:	optional, see performance data
Temperature sensor:	optional, see performance data
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -15°C to 70°C above mounting
Protection rating:	IP 65

Data sheet

Mini float switch in brass with terminal housing Optional Temperaturschalter, PT100 und PT1000

Temperature switch:

Temperature switch point ranges:

Switching temperature	Reset temperature	Switching temperature	Reset temperature
40°C±5K	≥ 27°C	95°C±5K	70°C±15K
45°C±5K	≥ 30°C	100°C±5K	70°C±15K
50°C±5K	≥ 33°C	105°C±5K	75°C±15K
55°C±5K	34-47°C	110°C±5K	75°C±15K
60°C±5K	35-52°C	115°C±5K	80°C±15K
65°C±5K	36-57°C	120°C±5K	85°C±15K
70°C±5K	38-60°C	125°C±5K	90°C±15K
75°C±5K	38-63°C	130°C±5K	95°C±15K
80°C±5K	55°C±15K	135°C±5K	100°C±15K
85°C±5K	60°C±15K	140°C±5K	105°C±15K
90°C±5K	65°C±15K	145°C±5K	105°C±15K

Technical data:

Technology: bimetal

Accuracy: ±5K

Switching voltage: 230VAC - connection 01, 10, 13
24VDC - connection 02, 08, 09, 12, 17

Switching current: 1A - connection 01, 10, 13
150mA - connection 02, 08, 09, 12, 17

Temperature sensor PT100

PT100 2 wire --- PT100

PT100 3 wire --- PT103

PT100 4 wire --- PT104

Technical data:

Nominal resistance: 100 Ohm at 0°C

Tolerance: DIN EN 60751, class B

Temperature coefficient: TK = 3850ppm/K

Temperature range: -20 up to 100°C

Self-heating: 0,4K/mW

Temperature sensor PT1000

PT1000 2 wire --- PT1000

PT1000 3 wire --- PT1003

Technical data:

Nominal resistance: 1000 Ohm at 0°C

Tolerance: DIN EN 60751, class B

Temperature coefficient: TK = 3850ppm/K

Temperature range: -20 up to 100°C

Self-heating: 0,2K/mW