

Data sheet

Mini float switch in brass with plug connection 2xM12

Order key

M60 . 1 . A1 . B4 . 100 . 200 . 09 . 01 . 8 . 600

Type mini float switch M60

Material tube
brass tube ø8 --1

Switching function 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 24VDC/150mA

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
2x M12 4 pole --- 09

Optional

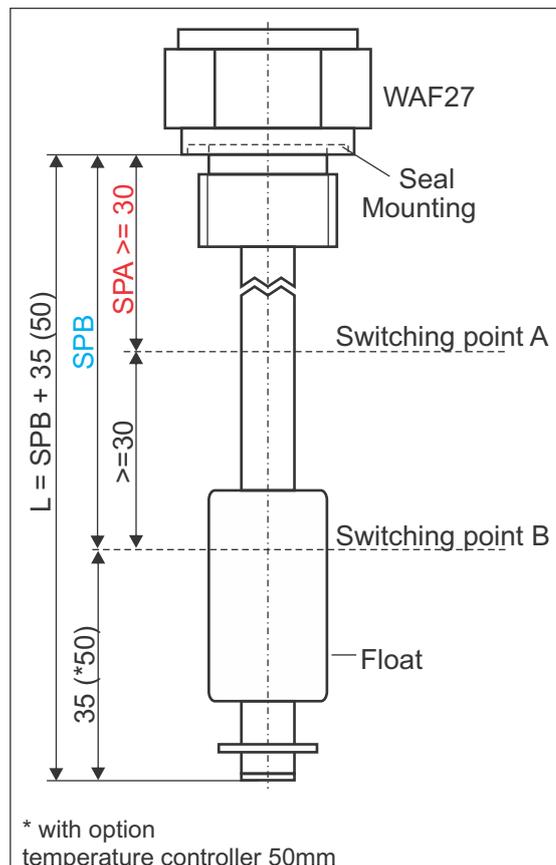
Temperature switch:
Technical details
60°C n. c. contact --- 600
65°C n. c. contact --- 650
70°C n. c. contact --- 700
75°C n. c. contact --- 750
85°C n. c. contact --- 850

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

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

Flaot
ø17,8x32mm material NBR --- 8

Mounting material aluminium / Pa6
screw connection 1/2" ----- 02
screw connection 3/4" ----- 13
screw connection 1" ----- 22
round-Flansch ø74 Lk60 ----- 46
screw connection M20x1,5 --- 01
screw connection M22x1,5 --- 24
screw connection M24x1,5 --- 33

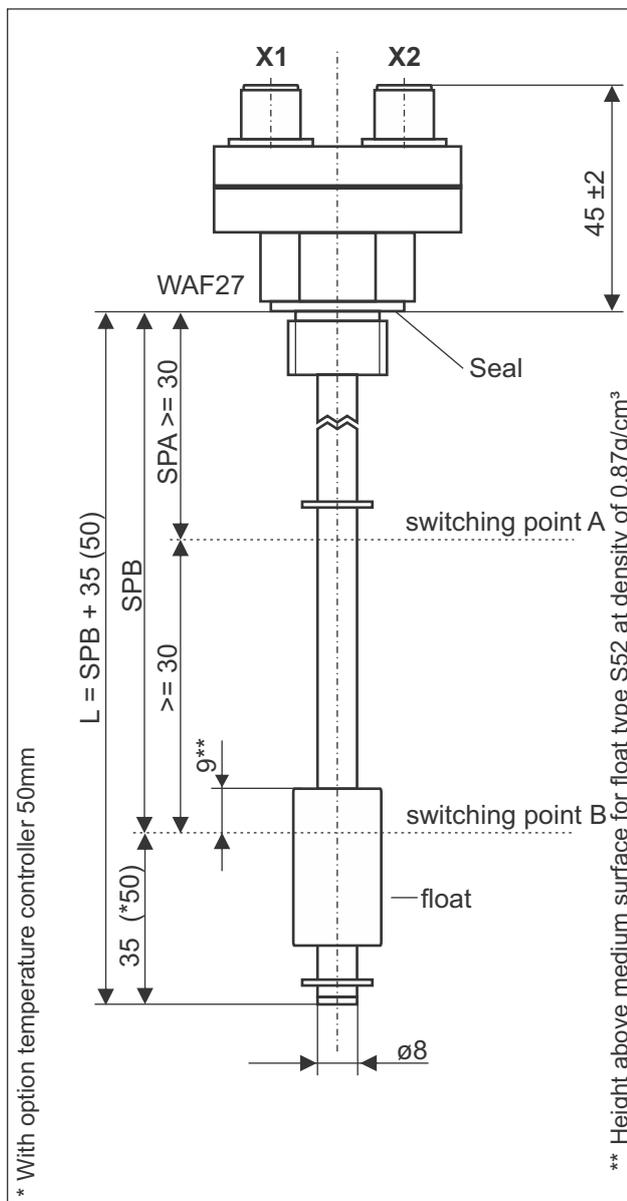


Data sheet

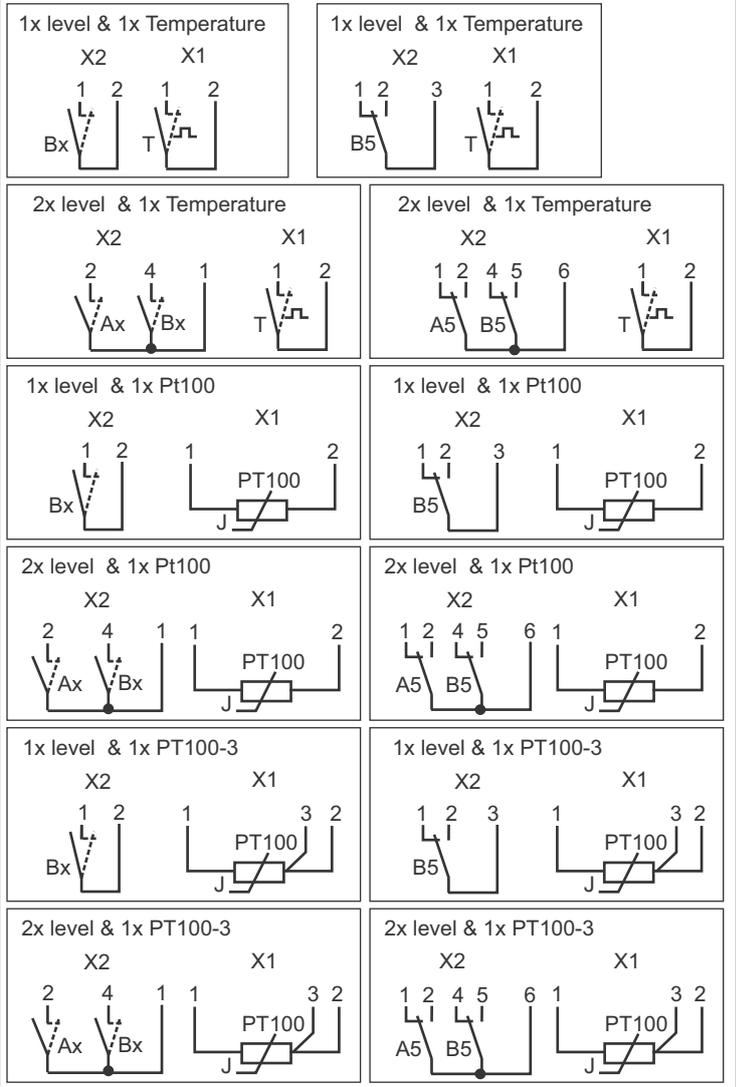
Mini float switch in brass with plug connection 2xM12

Type: M60...09.02.8

Mounting 1/2"



Example for terminal diagrams



Technical data

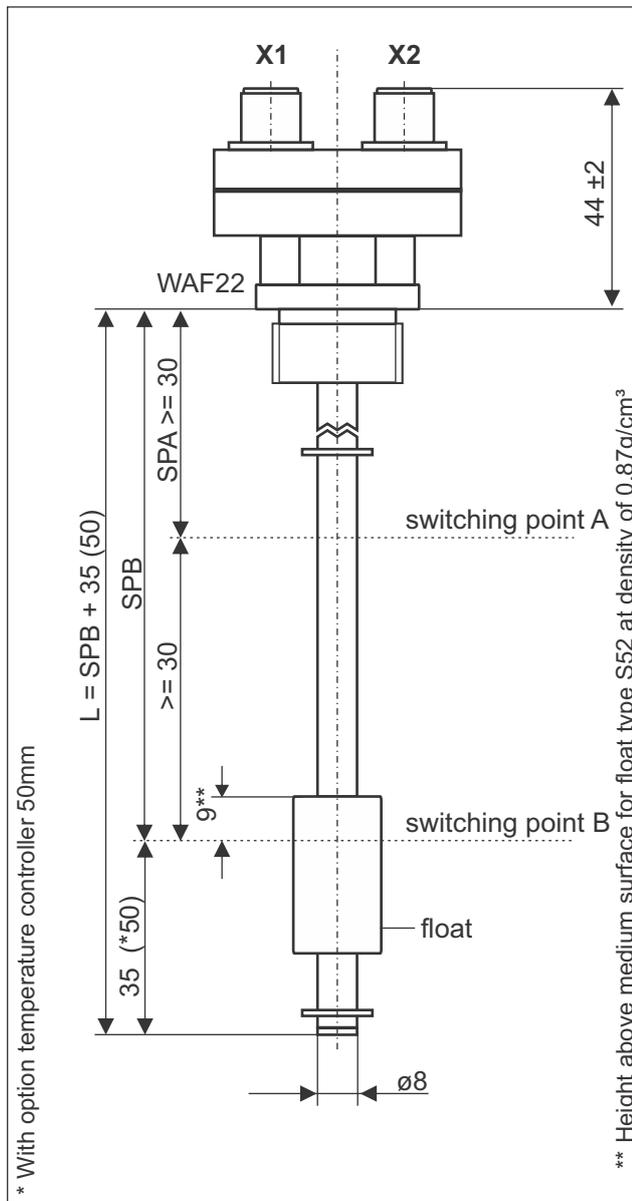
Connection:	plug-type connector 2x M12x1 4-pole, material TPU, on aluminium housing
Mounting:	thread 1/2", material aluminium
Mounting position:	vertical ± 10°
Seal:	profile seal, material NBR
Sliding tube:	ø8mm material brass, length and material according to customer specification
Float:	ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contact n.o., contact / n.c. contact or 2x change over contact, function bistable
Switching voltage:	max. 24VDC
Switching current:	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

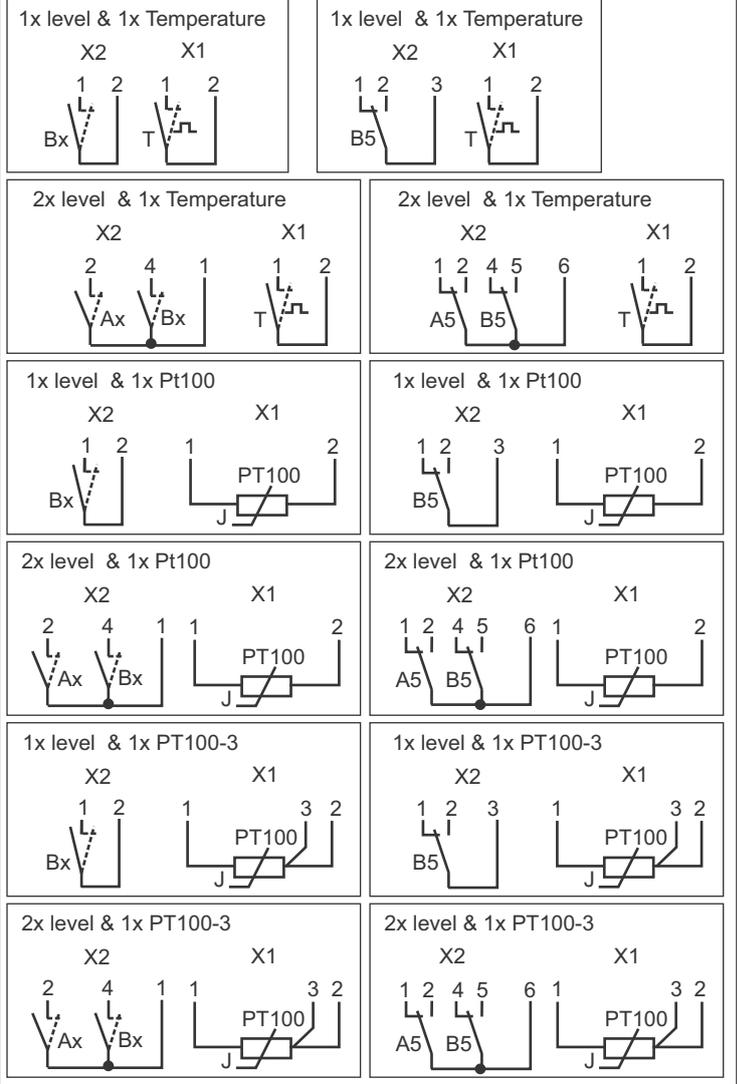
Mini float switch in brass with plug connection 2xM12

Type: M60...09.13.8

Mounting 3/4"



Example for terminal diagrams



Technical data:

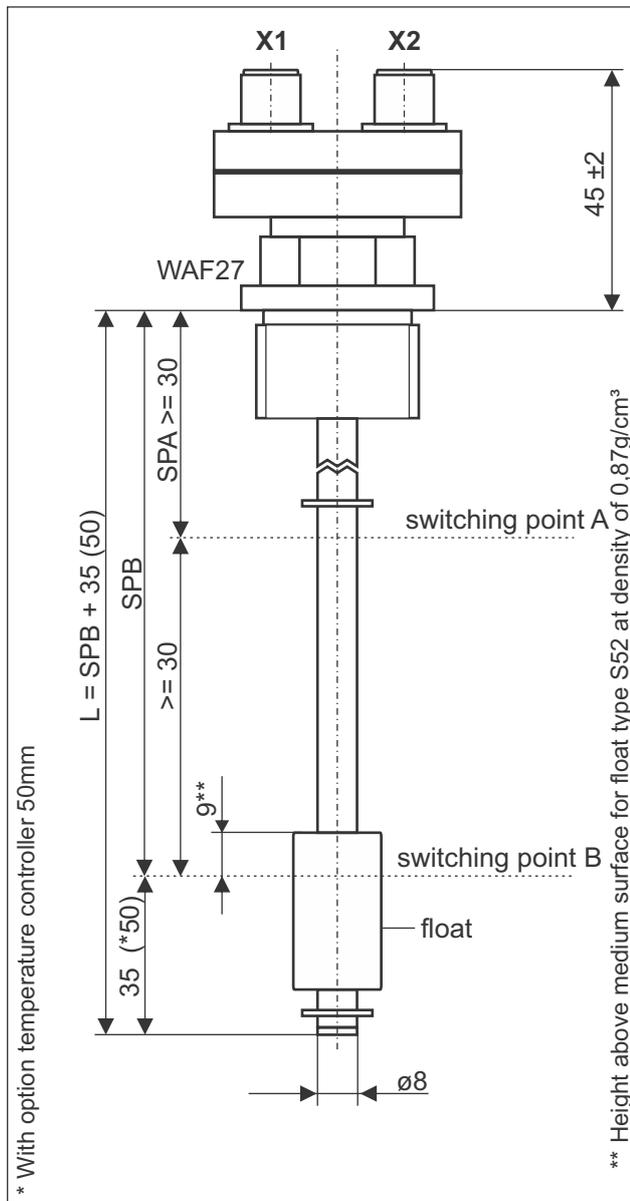
Connection:	Plug-type connector 2x M12x1 4-pole, material TPU, on alu housing
Mounting:	thread 3/4", material aluminium
Mounting position:	vertical ± 10°
Sliding tube:	ø8mm material brass, length and material according to customer specification
Float:	ø17,8x32mm, material NBR, type S52
Reed contact:	max. 2x reed contacts n.o., contact / n.c. contact or 2x change over contact, function bistable
Switching voltage:	max. 24VDC
Switching current:	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

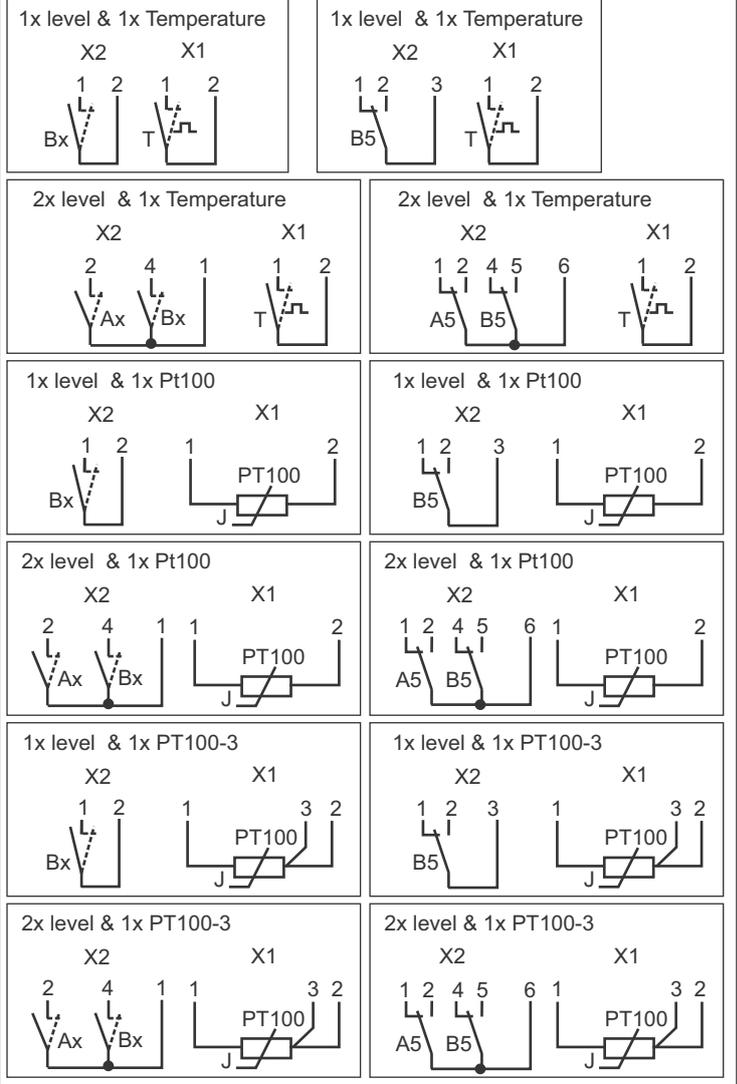
Mini float switch in brass with plug connection 2xM12

Type: M60...09.22.8

Mounting 1"



Example for terminal diagrams



Technical data

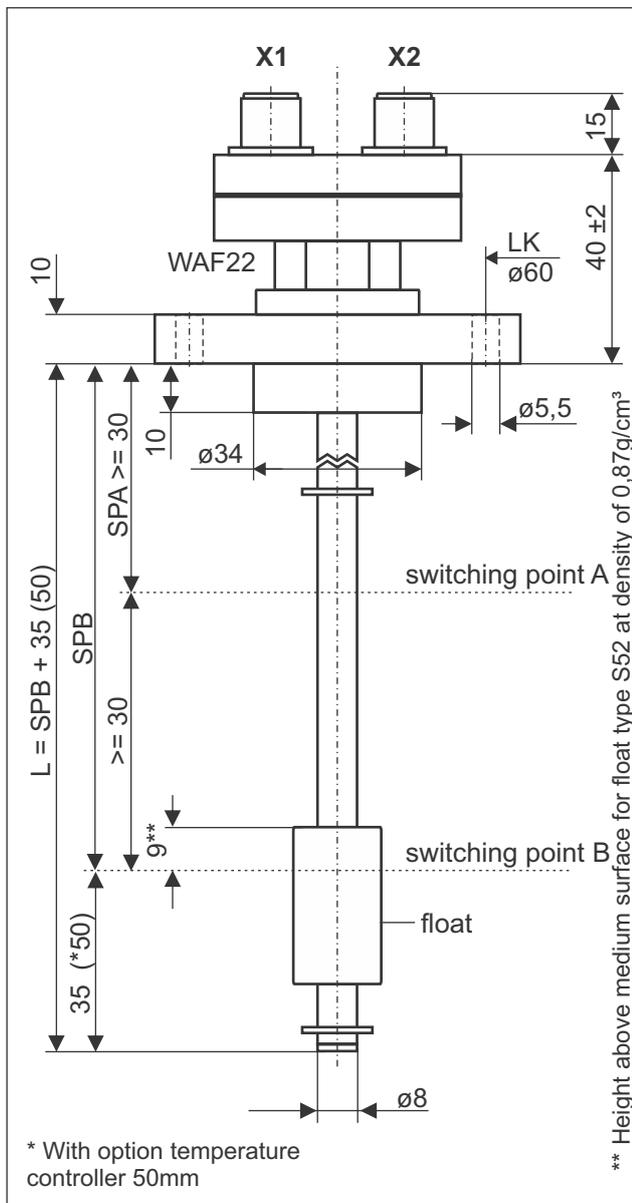
Connection:	plug-type connector 2x M12x1 4-pole, material TPU, on aluminium housing
Mounting:	thread 1", material aluminium
Mounting position:	vertical $\pm 10^\circ$
Sliding tube:	$\varnothing 8$ mm material brass, length and material according to customer specification
Float:	$\varnothing 17,8 \times 32$ mm, material NBR, type S52
Reed contact:	max. 2x reed contact, n.o. contact / n.c. contact or 2x change over contact, function bistable
Switching voltage:	max. 24VDC
Switching current:	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

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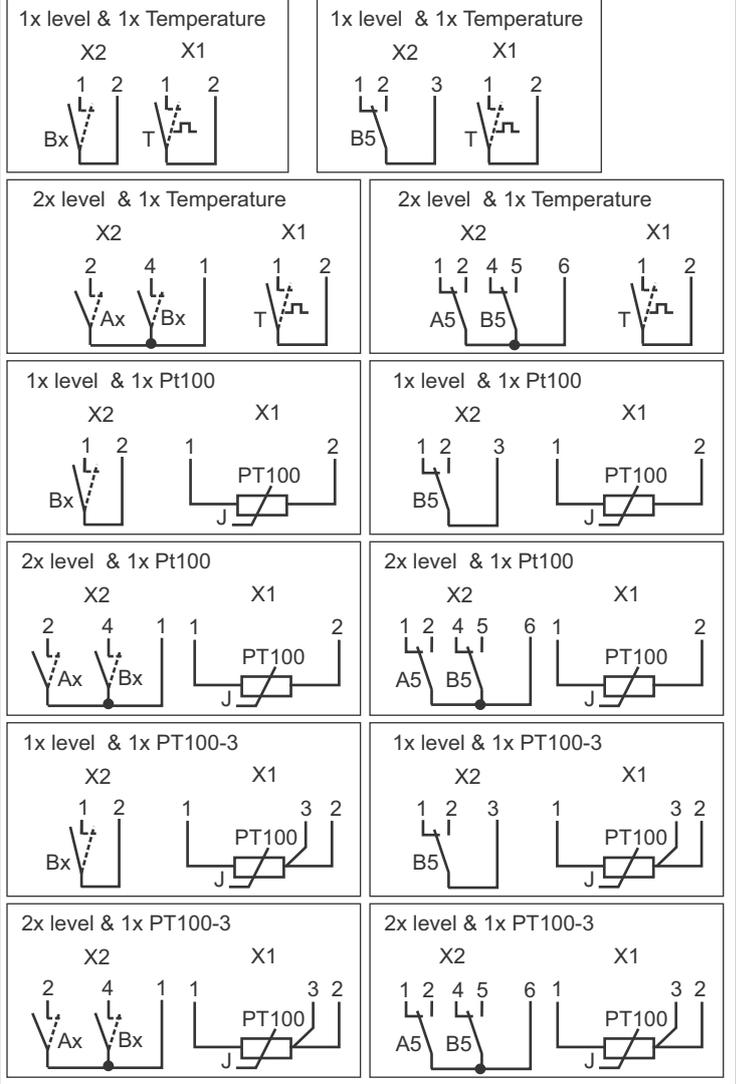
Mini float switch in brass with plug connection 2xM12

Typ: M60...09.46.8

Mounting round flange



Example for terminal diagrams



Technical data:

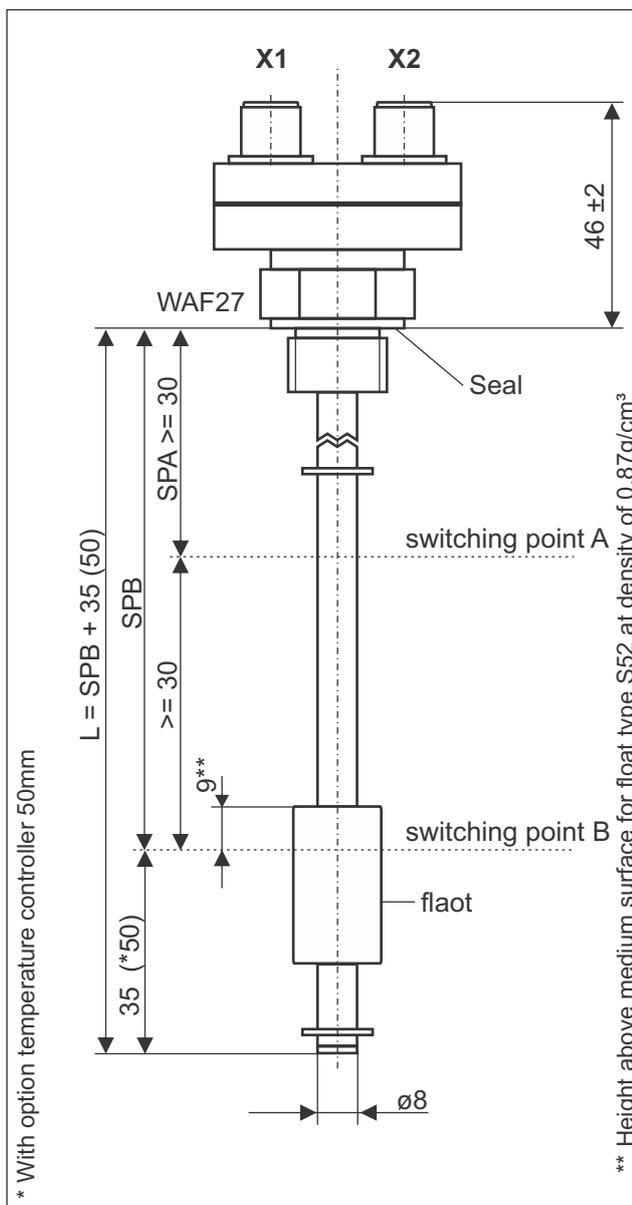
Connection:	plug-type connector 2x M12x1, 4-pole, material TPU, on alu housing
Mounting:	round flange AD 74mm, material aluminium
Mounting position:	vertical $\pm 10^\circ$
Sliding tube:	$\varnothing 8$ mm material brass, length and material according to customer specification
Float:	$\varnothing 17,8 \times 32$ mm, material NBR, type S52
Reed contact:	max. 2x reed contacts, n.o. contact / n.c. Contact or 2x change over contact, function bistable
Switching voltage:	max. 24VDC
Switching current:	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

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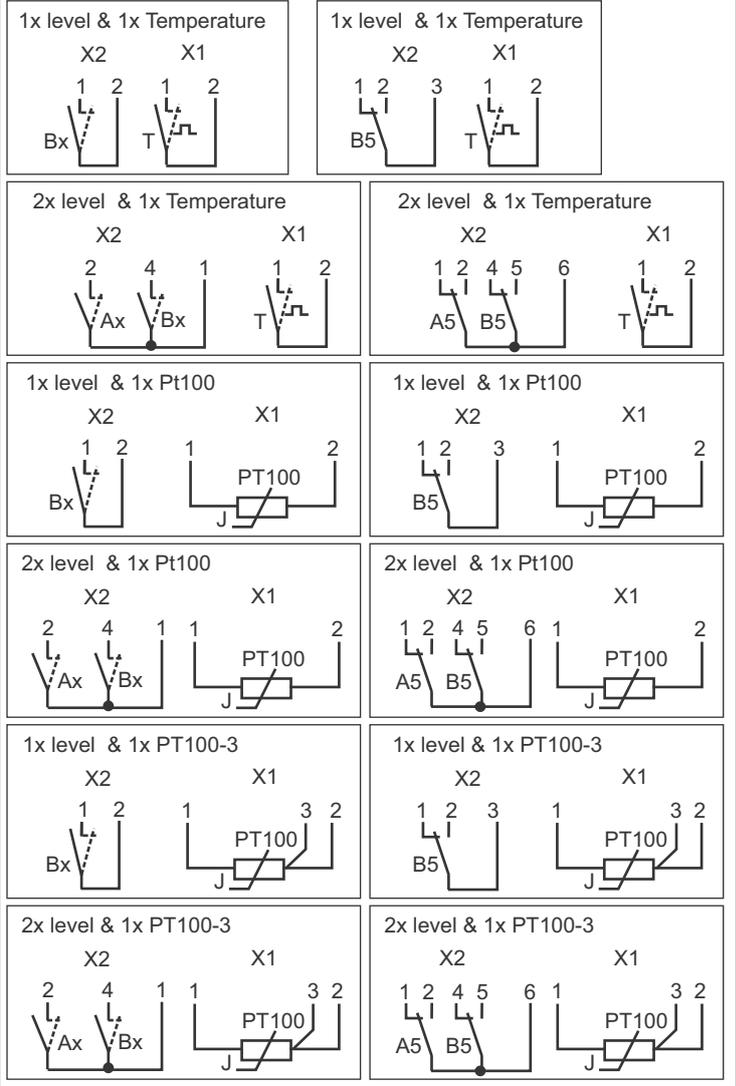
Mini float switch in brass with plug connection 2xM12

Type: M60...09.01.8

Mounting M20x1,5



Example for terminal diagrams



Technical data:

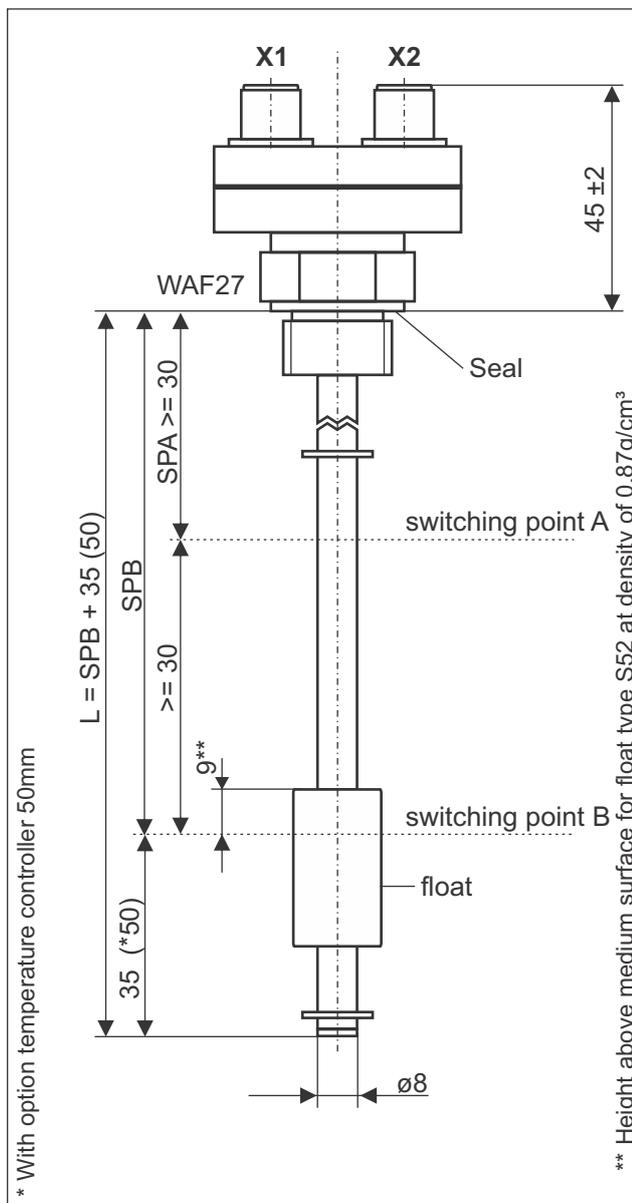
Connection:	connector 2x M12x1 4-pole, material TPU, on aluminium housing
Mounting:	thread M20x1,5, material aluminium
Mounting position:	vertical $\pm 10^\circ$
Seal:	profile seal, material NBR
Sliding tube:	$\varnothing 8$ mm material brass, length and material according to customer specification
Float:	$\varnothing 17,8 \times 32$ mm, material NBR, type S52
Reed contact:	max. 2x reed contacts, n.o. contact / n.c. Contact or 2x change over contact, function bistable
Switching voltage:	max. 24VDC
Switching current:	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

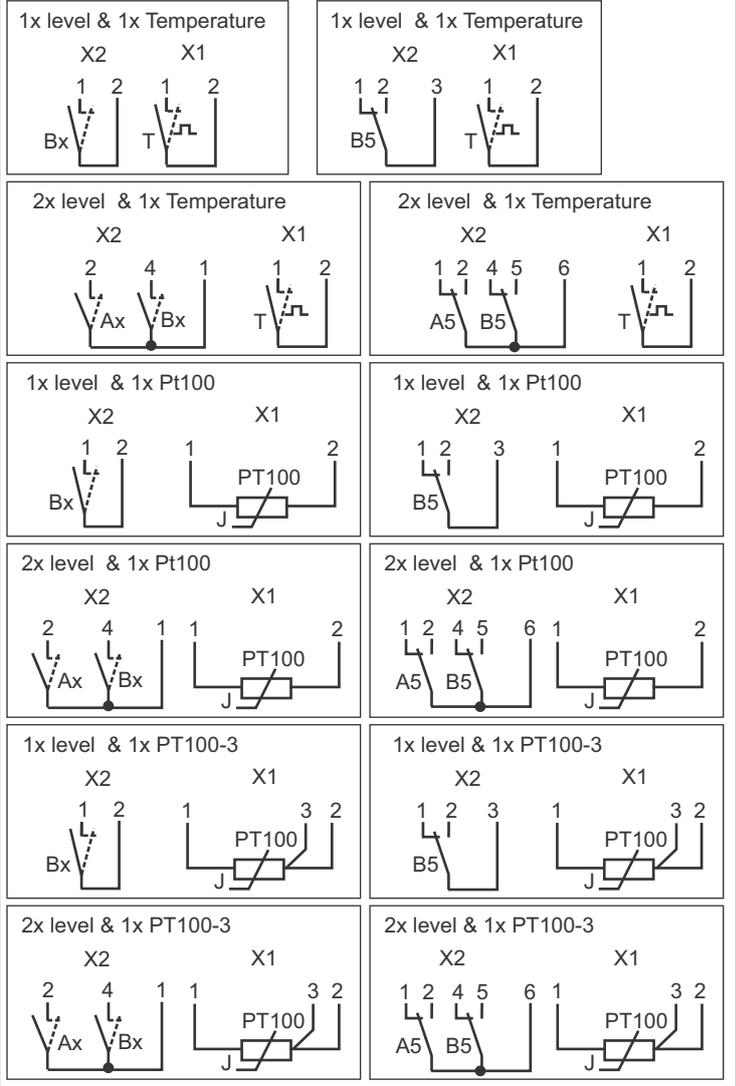
Mini float switch in brass with plug connection 2xM12

Type: M60...09.24.8

Mounting M22x1,5



Example for terminal diagrams



Technical data:

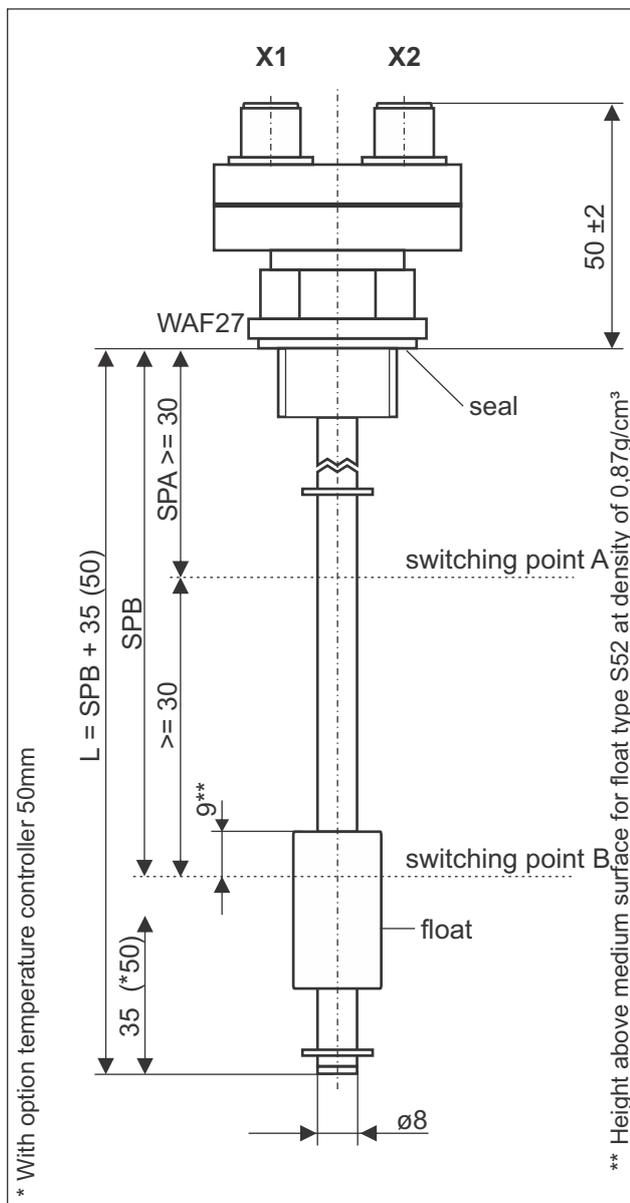
Connection:	plug-type connector 2x M12x1, 4-pole, material TPU, on aluminium housing
Mounting:	thread M22x1,5, material aluminium
Mounting position:	vertical $\pm 10^\circ$
Seal:	profile seal, material NBR
Sliding tube:	$\varnothing 8$ mm material brass, length and material according to customer specification
Float:	$\varnothing 17,8 \times 32$ mm, material NBR, type S52
Reed contact:	max. 2x reed contacts, n.o. contact / n.c. Contact or 2x change over contact, function bistable
Switching voltage:	max. 24VDC
Switching current:	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

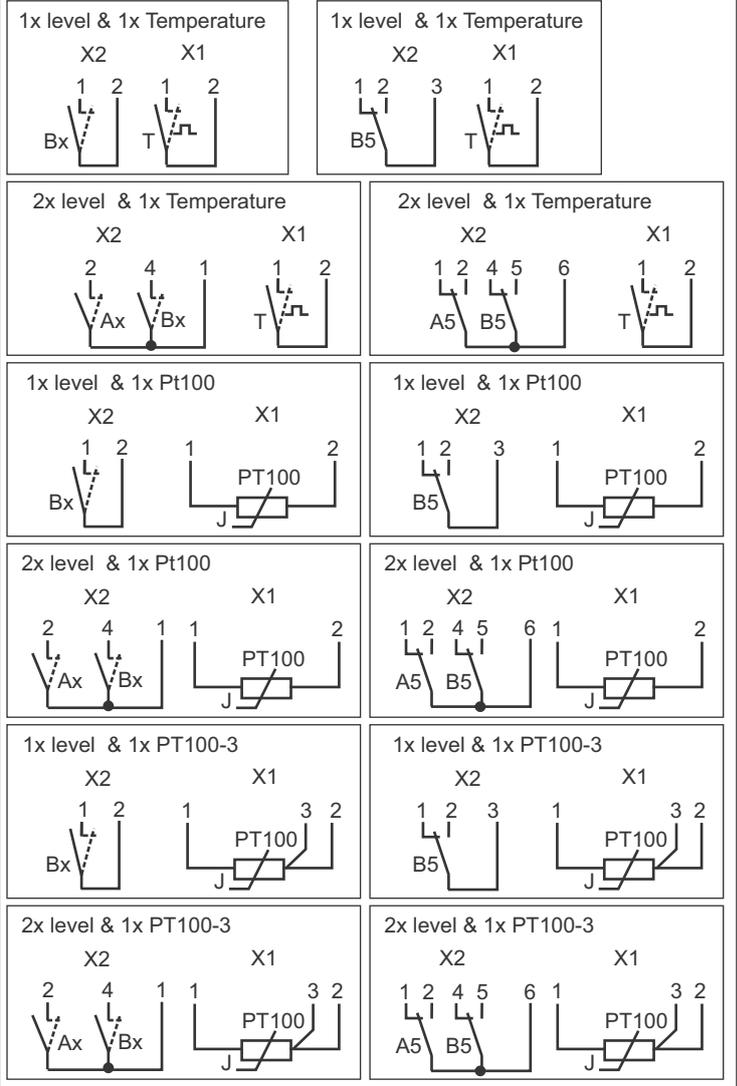
Mini float switch in brass with plug connection 2xM12

Type: M60...09.33.8

Mounting M24x1,5



Example for terminal diagrams



Technical data:

Connection:	plug-type connector 2x M12x1, 4-pole, material TPU, on alu housing
Mounting:	thread M24x1,5, material aluminium
Mounting position:	vertical $\pm 10^\circ$
Seal:	profile seal, material NBR
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. contact / n.c. contact or change over contact, function bistable
Switching voltage:	max. 24VDC
Switching current:	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 plug connection 2xM12

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