



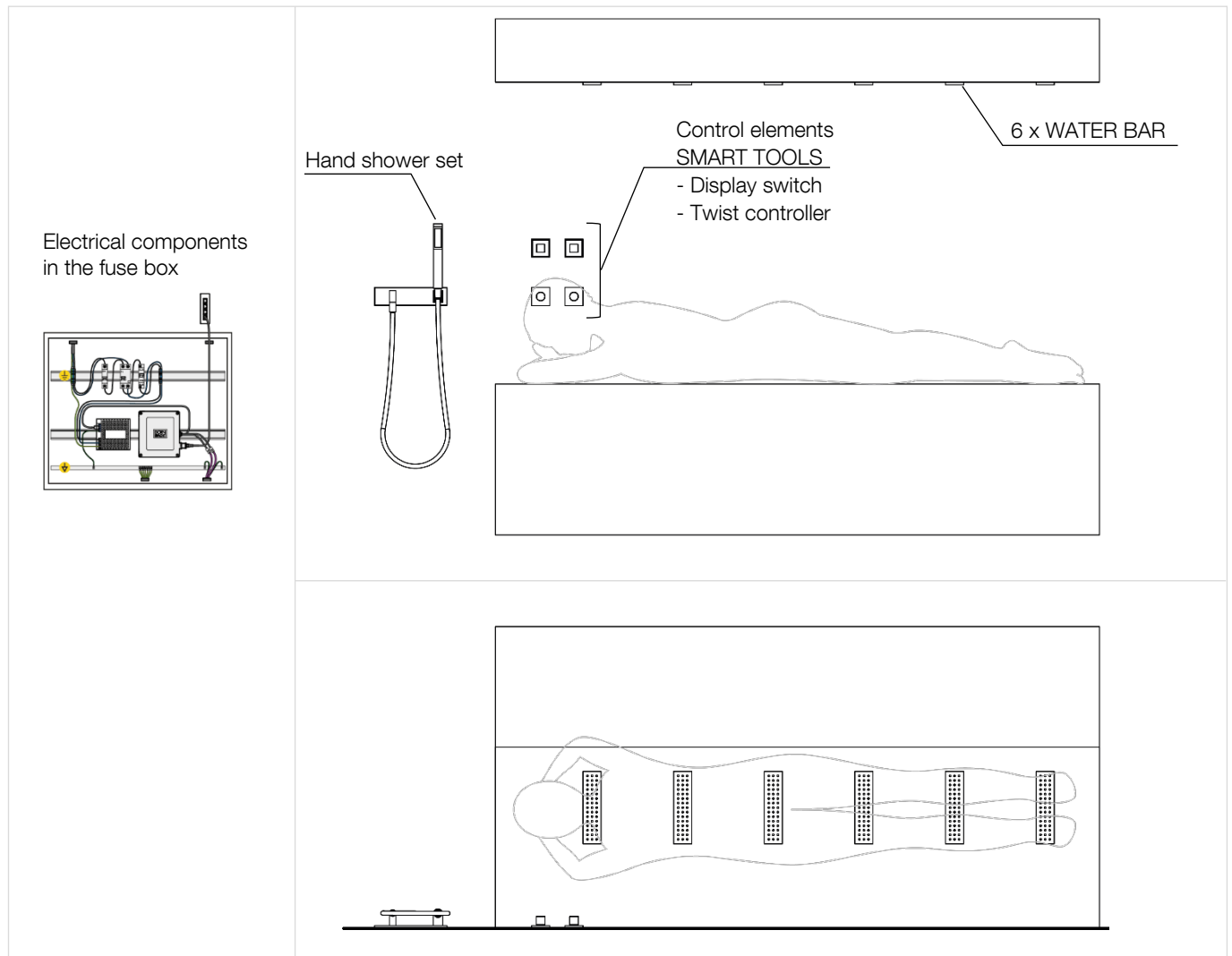
Dornbracht

Horizontal Shower<sup>ATT</sup>

# Planning Guide

- 02 Introduction
- 04 Planning
- 10 Installation
- 18 Product details
- 22 Addresses

# Exposed trim components



Electrical components supplied  
(in the fuse box)

- 1 x power supply unit 100 – 240 V AC / 12 V DC, 4 A
- 1 x Motherboard Box
- 1 x ethernet cable (CAT 7)

Additional components supplied but not shown:

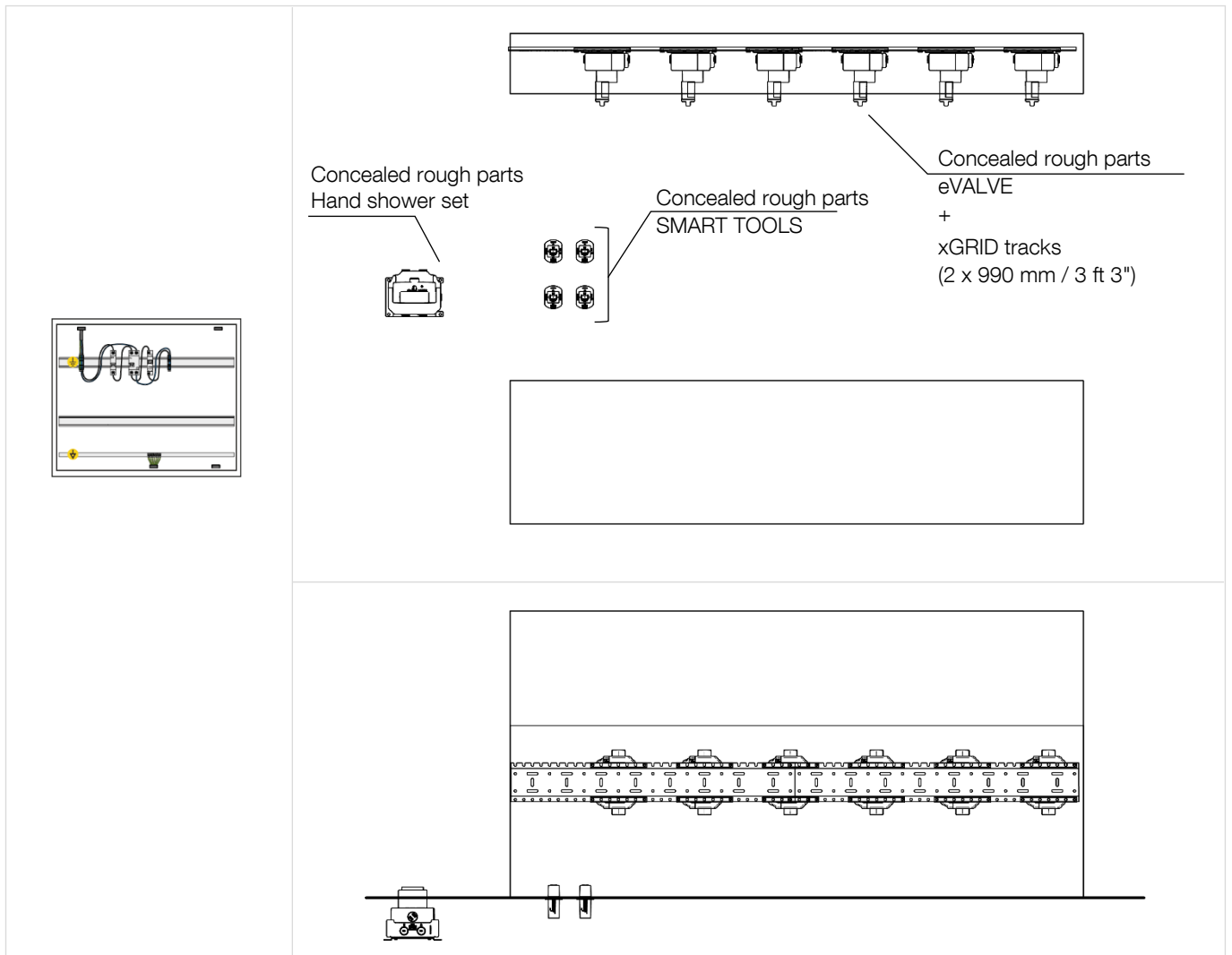
- 7 x eVALVE

It is obligatory for technical planning, installation and initial commissioning to be accompanied by a certified service partner and by booking a Dornbracht service package.

Detailed information on the service package can be found at [www.dornbracht-professional.com](http://www.dornbracht-professional.com).

Installation of the water pipes and electrical cables must be planned.

# Concealed rough components



Additional components supplied but not shown:

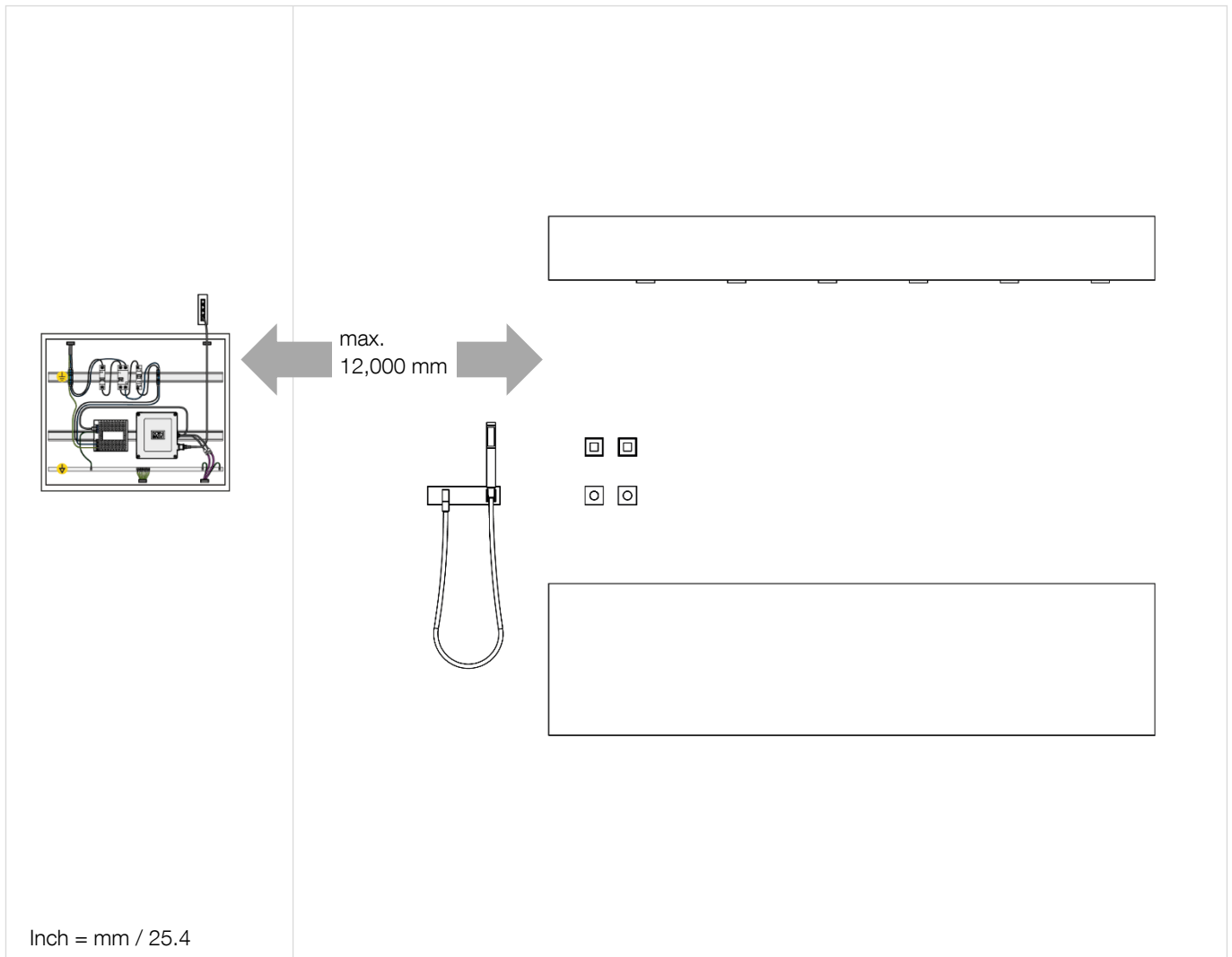
Electrical components

- 7 x equipotential bonding cable (4 mm<sup>2</sup> / AWG 11)
- 11 x VBUS cable

Plumbing components

- 2 x stop valve (DN 20)
- 2 x dirt trap (DN 20)

# Positioning



Observe the regulations for protection zones according to DIN VDE 0100, Part 701 (IEC 60364-7-701).

Fuse box with electrical components

- 12,000 mm / 39 ft 4-3/8" maximum distance to the HORIZONTAL SHOWER<sup>ATT</sup>
- outside the wet zone
- accessible for inspection
- 5 – 35 °C / 41 – 95 °F ambient temperature

# Pre-wall system

The recess depths required for the WATER BARS (complete hand shower set) and SMART TOOLS control elements make it essential to have a pre-wall system at the wall (and suspended ceiling construction / mounting frame).

Provide a reclining area construction with adequate structural strength. The top of the reclining area needs to slope slightly so that the water can drain.

The proper execution of the pre-wall installation, can ensure compliance with soundproofing, heat insulation and fire protection standards.

Pre-wall installation systems are available from various suppliers (e.g. Geberit, Tece, Viega, etc.).

Pre-wall installations can also be implemented with C-profiles (e.g. Knauf, Rigips Saint-Gobain, Sheetrock, Siniat, etc.).

Wood can also be used, unless this contravenes the regulations of the country concerned.

Note the recess depths of the components.

The SMART TOOLS control elements concealed rough parts are fitted in the pre-wall panelling.

- 30 mm / 1-1/8" possible maximum thickness of the panelling for the SMART TOOLS control elements.
- 7 – 25 mm / 1/4" – 1" construction (tiles, natural stone, etc.), possible in front of the (plasterboard, etc.), panelling for the SMART TOOLS control elements.
- 1,400 mm / 4 ft 7-1/8" maximum height of the closed pre-wall, to allow the concealed rough parts of SMART TOOLS control elements and the VBUS cable to be fitted.

A structural engineer should select the suitable suspended mounting frame and fixing materials for the particular wall.

# Operating conditions

## Area of application

The product is not designed for outdoor use.

Dornbracht must be consulted before operating the device in a steam, chlorine or salt-laden atmosphere.

Water quality must be ensured by installing a filter or a water conditioning system.

Large differences in pressure between cold and hot water supply must be balanced.

Maximum permissible relative humidity (without condensation) 95 %

## Permissible ambient temperature

SMART TOOLS control elements	5 – 35 °C /	41 – 95 °F
Storage	5 – 35 °C /	41 – 95 °F

Store somewhere dust-free and dry.

## Permissible operating temperatures

Measuring point: Concealed rough parts for eVALVE

Cold water temperature	5 – 20 °C /	41 – 68 °F
Recommended cold water temperature	15 °C /	59 °F
Hot water temperature	55 – 65 °C /	131 – 149 °F
Recommended hot water temperature	60 °C /	140 °F
Thermal disinfection (max. 10:00 mins.)	< 75 °C /	< 167 °F

## Flow pressure

Measuring point: Concealed rough parts for eVALVE

Permissible flow pressure	250 – 400 kPa /	36 – 58 psi /	2.5 – 4 bar
Recommended flow pressure	300 kPa /	44 psi /	3 bar
Maximum difference in flow pressure between HW + CW	100 kPa /	14.5 psi /	1 bar
Recommended difference in flow pressure between HW + CW	≤ 50 kPa /	≤ 7 psi /	≤ 0.5 bar

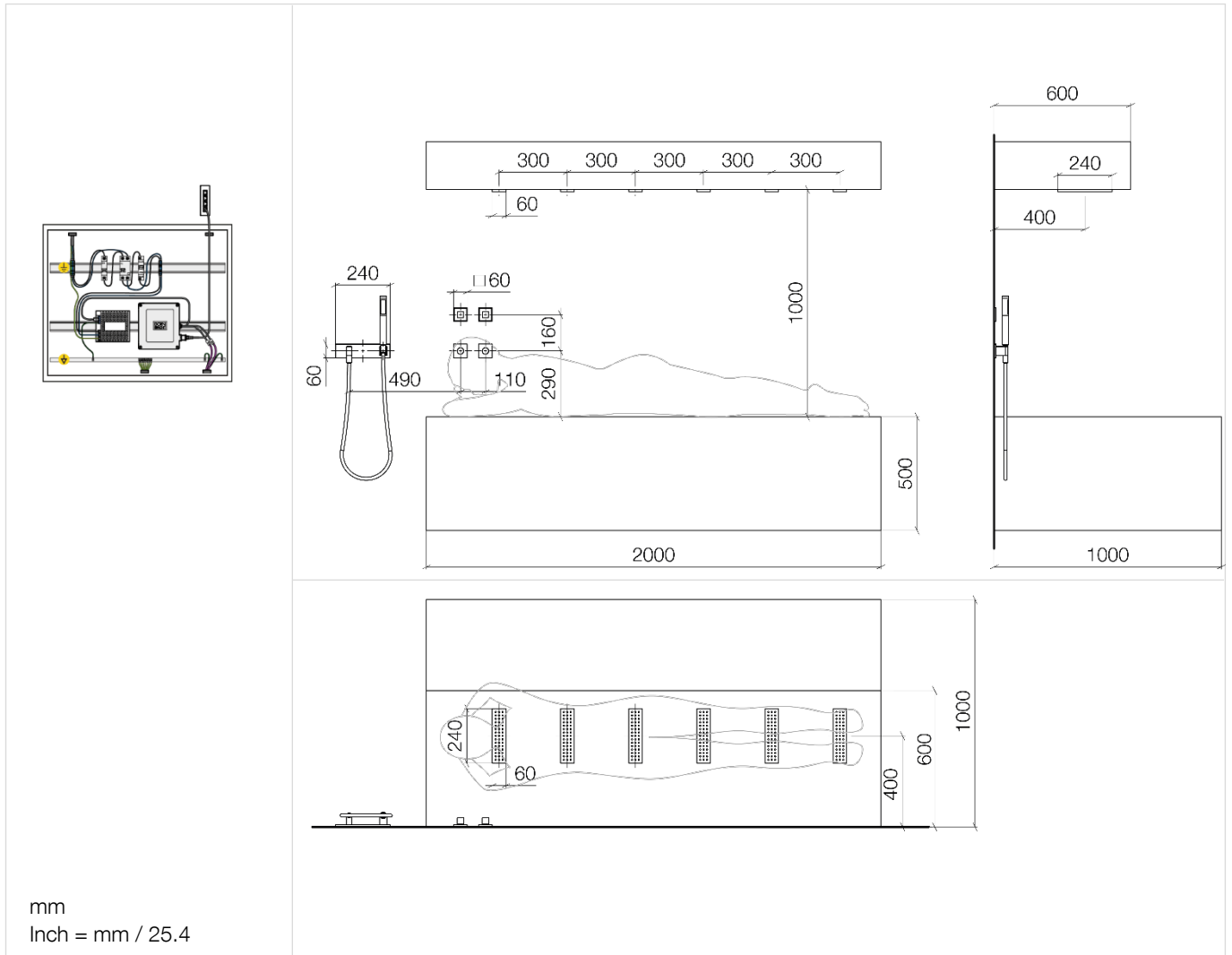
Fit a speed-controlled pressure booster in the main pipe, if necessary.

## Water hardness

Recommended water hardness 6 – 7 °dH / 107 – 125 ppm CaCO<sub>3</sub> / 7.5 – 8.8 °e / 10.7 – 12.5 °fH

Fit a water softener into the main pipe, if necessary. The reduction in pressure caused by the water softener must be taken into account.

# Dimensions



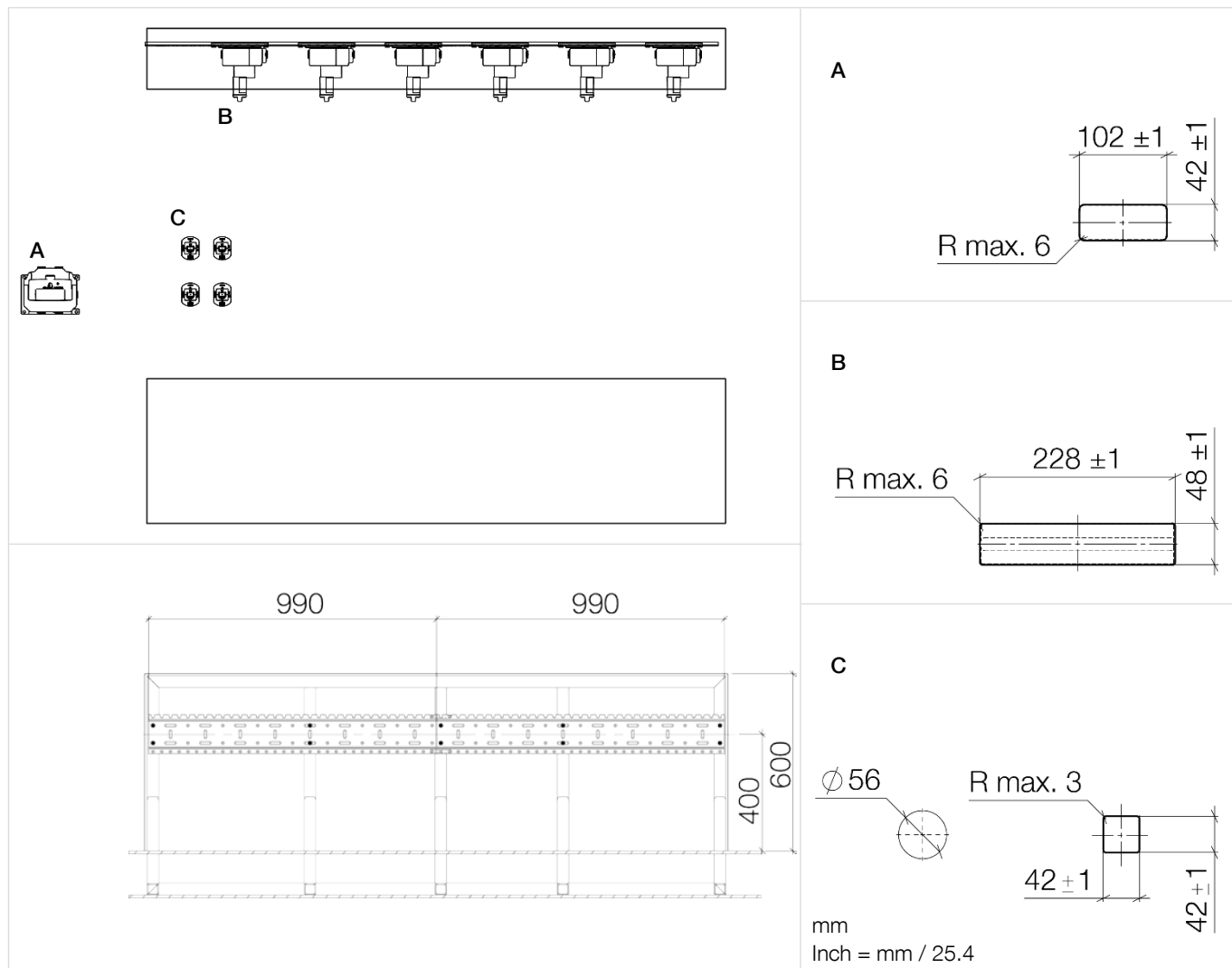
- 90 mm / 3-1/2" minimum horizontal and/or vertical distance (centre / centre) for SMART TOOLS
    - The distance must never be less than this!-
  - 290 mm / 11-3/8" distance between the reclining area and the control elements.
  - 1,000 mm / 3 ft 3-3/8" recommended minimum distance between the suspended ceiling construction and the reclining area
  - 300 mm / 13" minimum distance for WATER BARS
- The dimensions stated apply to users who are 1,800 mm / 5 ft 10-7/8" tall.

The positions and dimensions can be adapted to meet individual needs.

Take into account that the following areas of the body are directly covered by water:

- 1 Midpoint of the soles of the feet
- 2 Calves
- 3 Thighs
- 4 Bottom / loins
- 5 Back
- 6 Nape of neck

# Cutouts



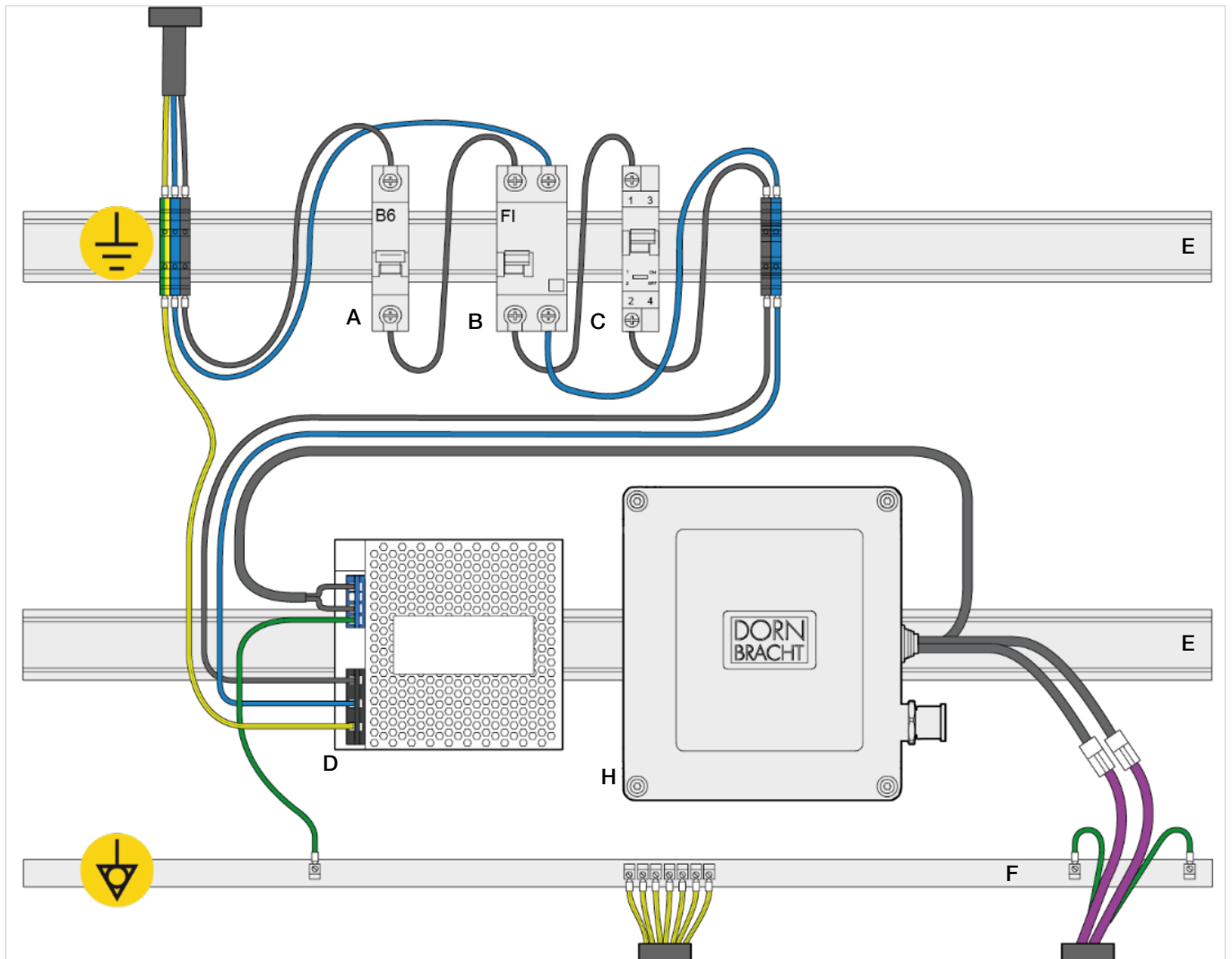
- A** – Hand shower set
- B** – WATER BARS
- C** – SMART TOOLS control elements

**1** The concealed rough parts for eVALVES and SMART TOOLS, as well as the VBUS cable must be fitted and tested before the pre-wall is closed.

- For the SMART TOOLS control elements:
- ∅ 56 mm / ∅ 2-1/4" drilled hole in the panelling for the concealed rough parts
  - 42 ± 1 mm x 42 ± 1 mm / 1-5/8" x 1-5/8" cutout in the wall construction (tiles, natural stone, etc.)



# Fuse box



Space required for electrical components in the fuse box:  
 min. 500 x 500 x 150 mm / 1 ft 7-3/4" x 1 ft 7-3/4" x 6" (inside).

Electrical components (scope of supply)

**D** – Power supply unit 100 – 240 V AC / 12 V DC, 4 A

**H** – Motherboard Box

The following circuit breakers and electrical components are to be provided by the customer:

**A** – Safety cut-out (6 A, type B)

**B** – Ground fault circuit interrupter (30 mA, 2-pin, type A)

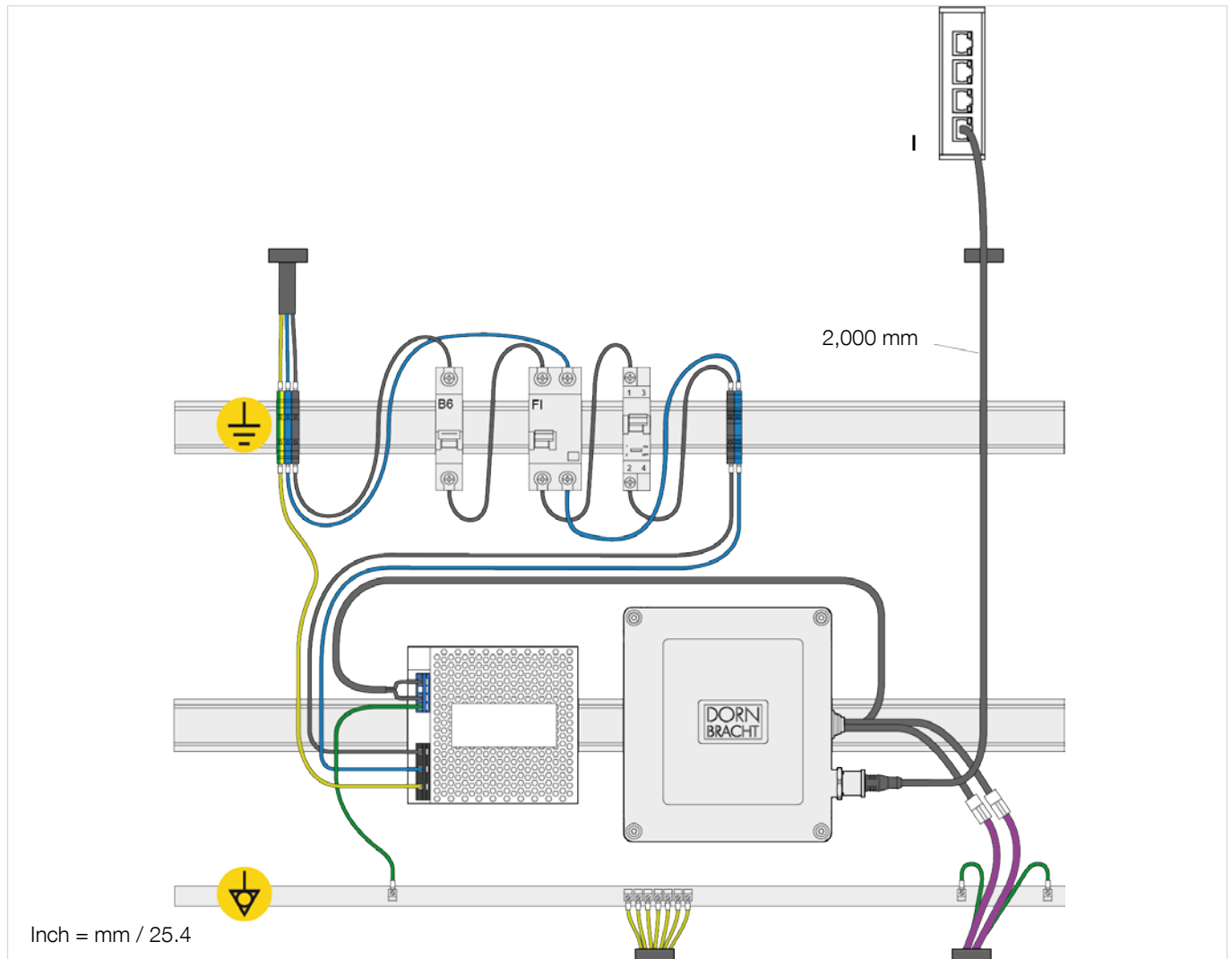
**C** – 1 x Circuit-breaker switch (16 A)

**E** – 2 x Rail mounting TS 35

**F** – Equipotential bonding rail

The equipotential bonding rail must be connected to the main earthing bar.

## Network connection



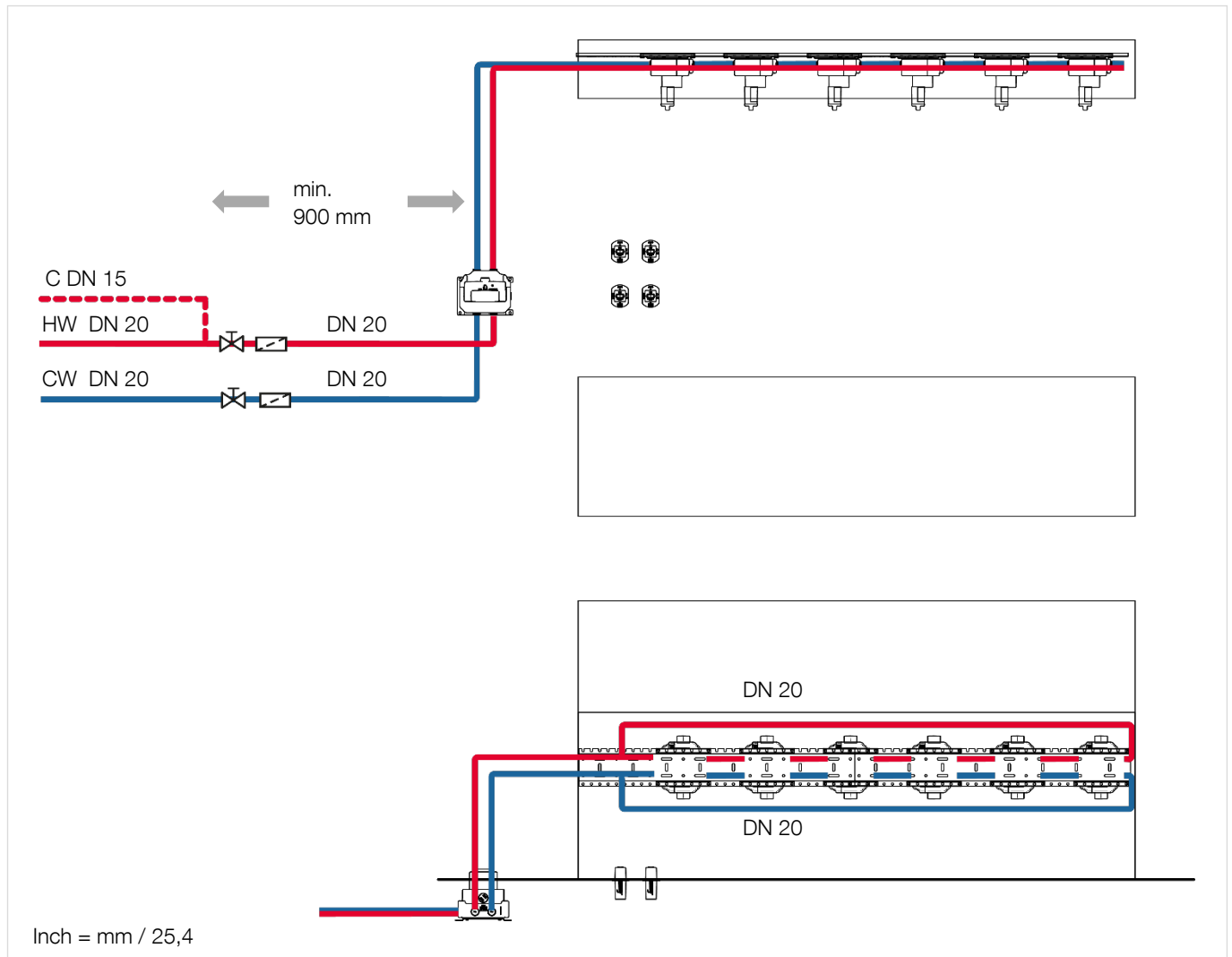
The network connection allows:

- Operation from a mobile device (SMART WATER APP)
- Integration in Smart Home systems (Open Interface)
- Connection to other media (e.g. light and sound systems)

Dornbracht recommends consulting a system integrator.

- I – A network socket (I) wired in accordance with TIA 568A is required to connect the HORIZONTAL SHOWER<sup>ATT</sup> device to a network. The local network must reside behind a router protected by a firewall.

# Standard installation



Required nominal diameter (DN) for pipes and fittings:

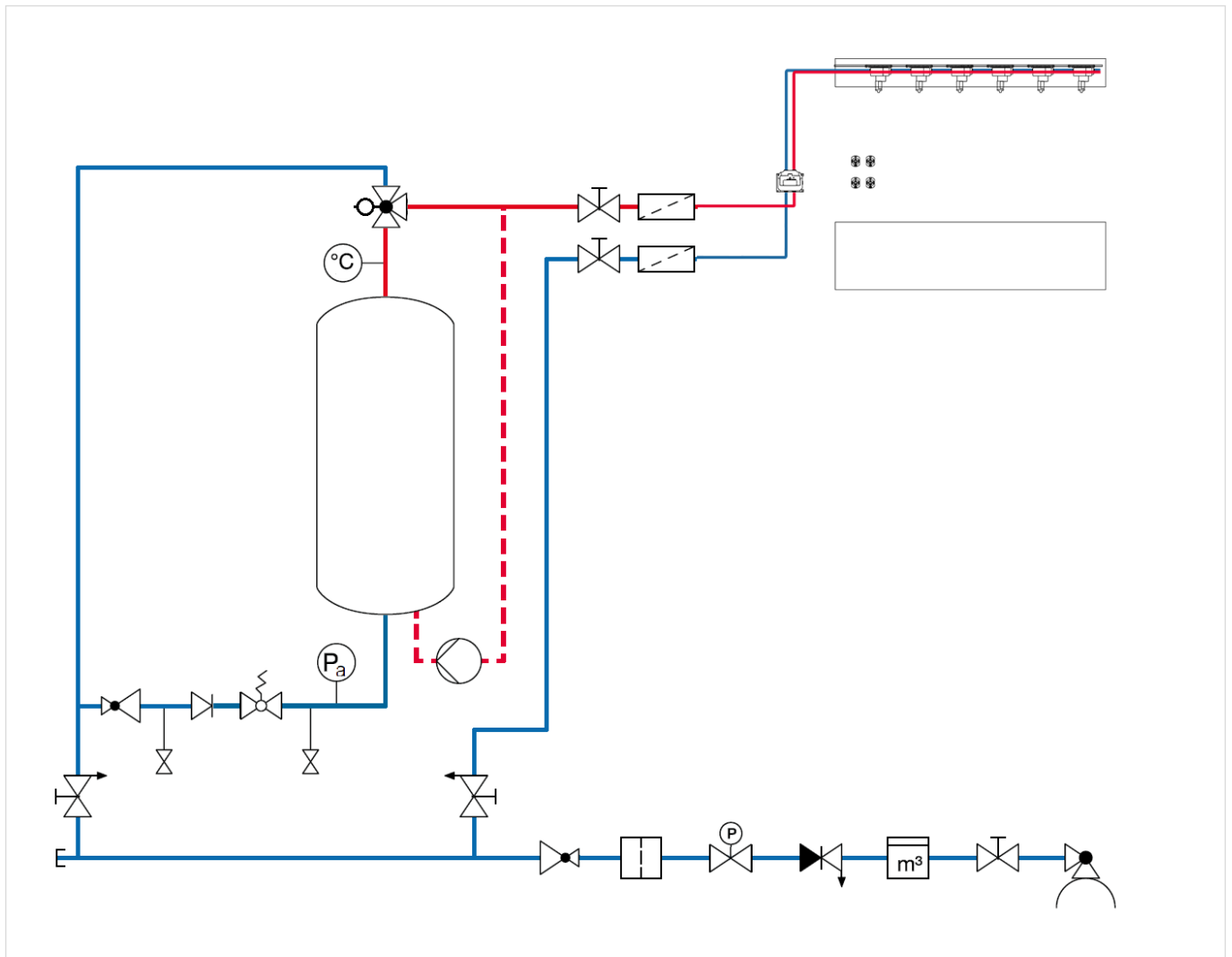
- DN 20 – hot and cold water pipe (HW + CW)
- DN 20 – ring main (loop)
- DN 15 – circulation line (C)

- 900 mm / 2 ft 11-3/8" minimum distance between the circulation pipe connection (C) and the first eVALVE of the HORIZONTAL SHOWER<sup>ATT</sup>

The following components for the hot and cold water pipe (HW + CW) must be positioned so that access is possible at all times (accessible for inspection):

- 2 x stop valve (DN 20)
- 2 x dirt trap (DN 20)

# Schematic diagram



Typical installation under EN 1717.

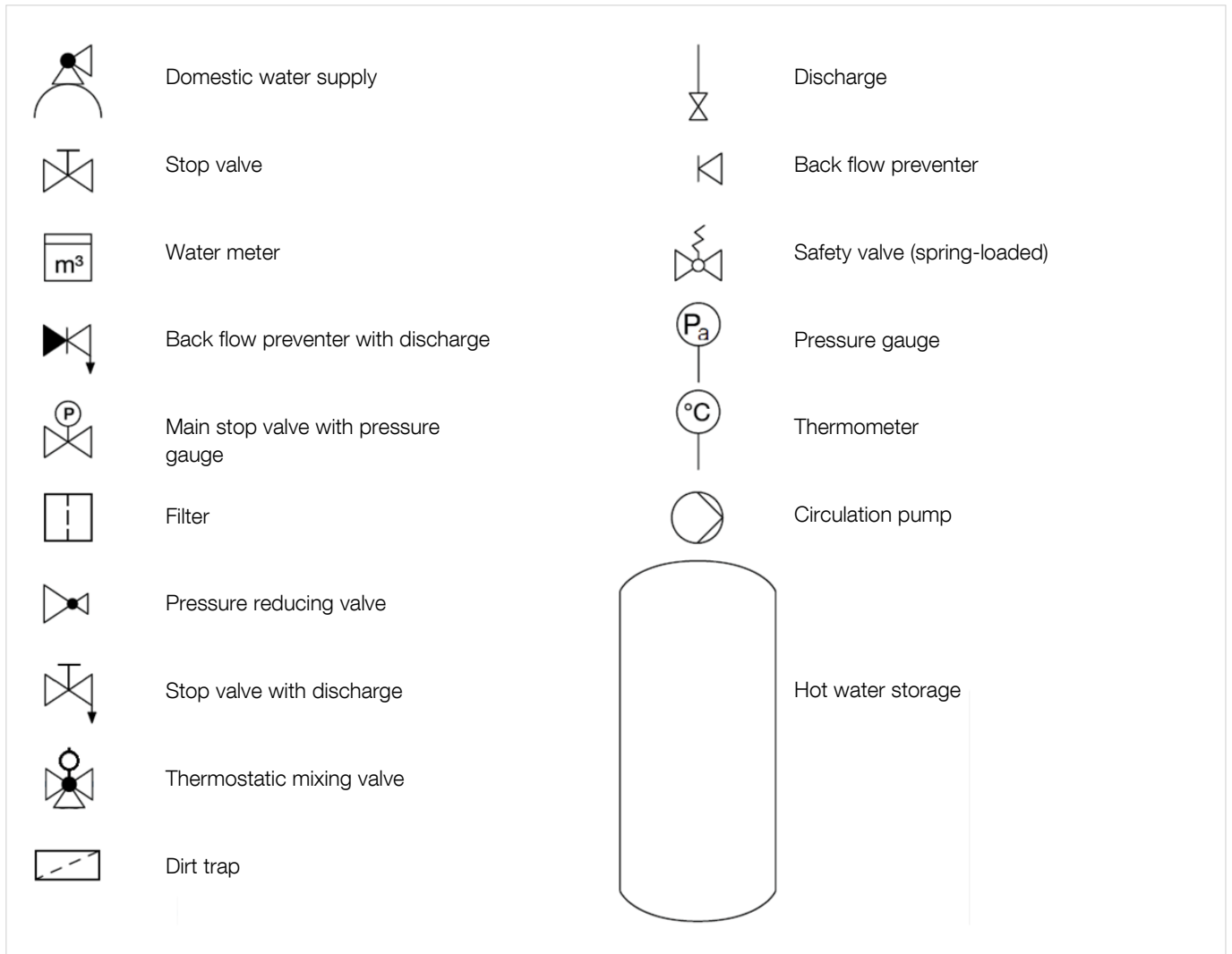
Key on next page

Please conform to national statutory regulations, where different.

Provided by customer:

- Filter (main pipe)
- Pressure reducing valve (main pipe)

# Key



# Plumbing information

## Pipework calculation

The pipework must be calculated in accordance with EN 806-3, DIN 1988-300.

The simultaneous use of all other outlet points must be considered (simultaneity).

Pressure reducing components of the HORIZONTAL SHOWER<sup>ATT</sup>:

- Stop valve 1.2 kPa / 0.174 psi / 0.012 bar
- Dirt trap 14 kPa / 2.03 psi / 0.14 bar

Pressure-reducing components provided by the customer:

- Water meter see manufacturer's specification
- Filter see manufacturer's specification
- Pressure reducing valve (main pipe) see manufacturer's specification
- Water softener, if necessary see manufacturer's specification

Install a speed-controlled pressure booster, if necessary (e.g. in accordance with DIN 1988-500).

## Hot water system

To choose the perfect hot-water supply – taking additional tapping points and simultaneous use into consideration – an individual determination of requirements (e.g. according to DIN 1988-200, DIN 4708-2, DIN 4753-7, VDI 6003) is absolutely necessary.

If the hot water temperature is set higher than 65 °C / 149 °F, a thermostatic water mixer must be installed downstream of the hot-water supply (e.g. for a solar-heated systems).

If periodic thermal disinfection is required, the customer must provide an appropriate (manually or automatically operated) bypass of the thermostatic water mixer.

## Floor drain

To choose the perfect drain – taking the flow rate of the entire installation into consideration – an individual determination of requirements is necessary. (e.g. in accordance with EN 12056-1/-2, DIN 1986-100).

Recommended drainage capacity / drain connection value [DU value] 2.1 l/s / 0.6 gps

Recommended drain pipe size DN 75

## Plumbing installation

Flushing of the entire installation with clean water is absolutely necessary (the valid guidelines for the flushing are to be observed).

A flushing report has to be created (e.g. EN 806-4 / DIN 1988-200).

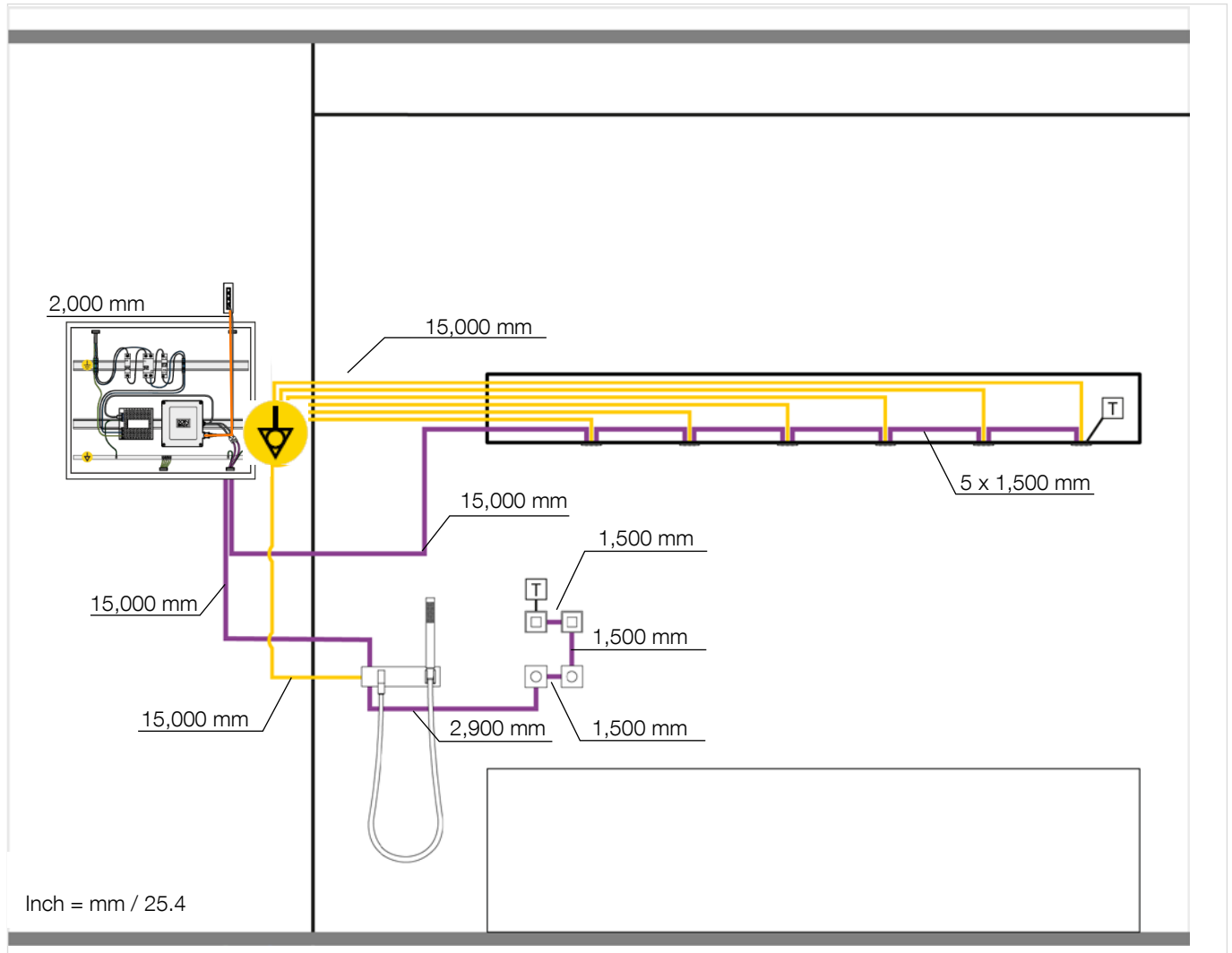
Flush before fitting the exposed trim parts and commissioning.

A pressure test of the entire installation (without angle valves) is absolutely necessary.


The exact procedure for the pressure test (preliminary test/main test) depending on the pipe material used, can be found in the currently applicable directives (EN 806-4, DIN 1988-200, etc.).


A test report has to be created.


# Schematic diagram



Inch = mm / 25.4

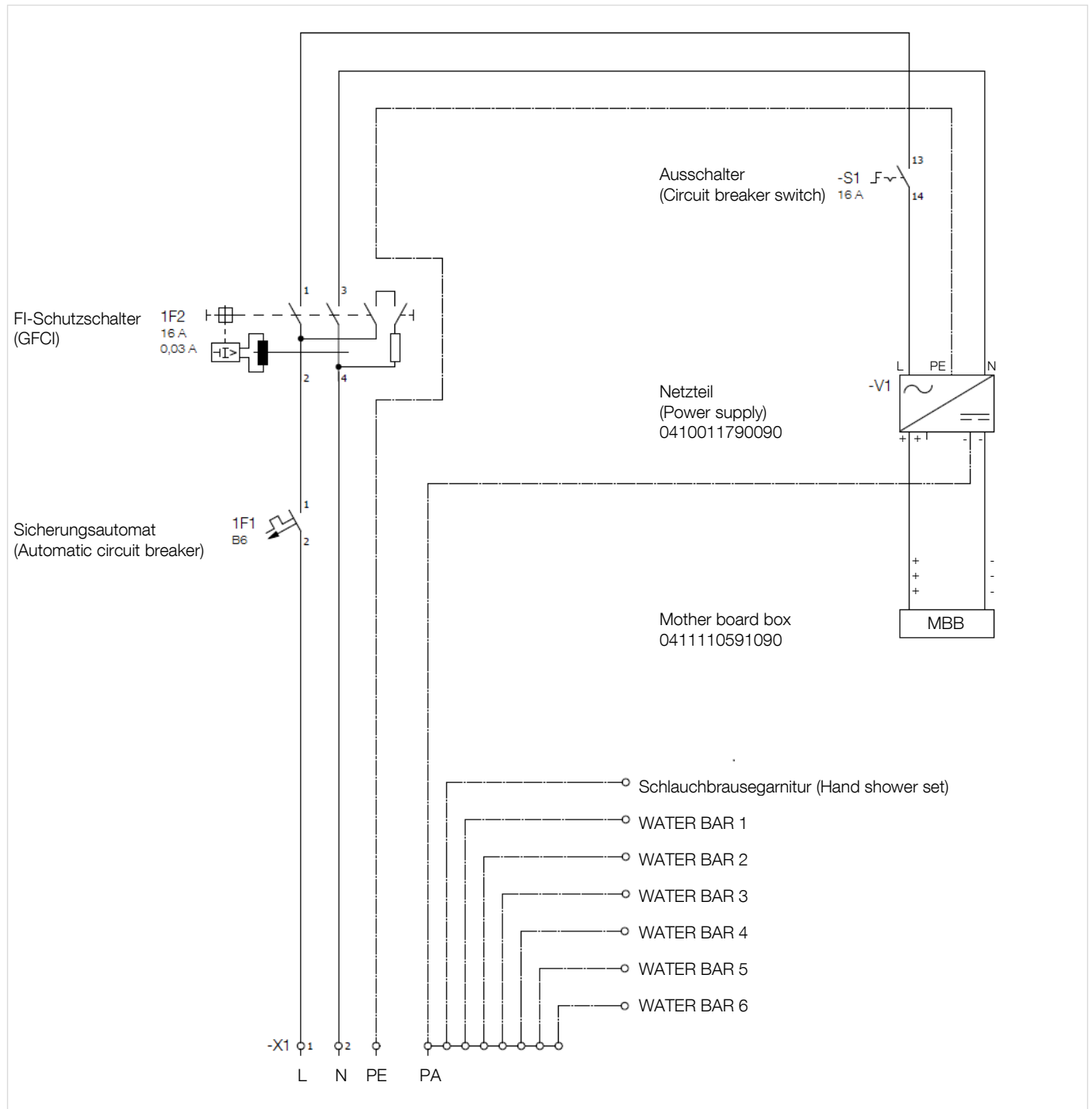
- = Ethernet cable (CAT 7)
- = VBUS cable
- = equipotential bonding cable (4 mm<sup>2</sup> / AWG 11)
-  = equipotential bonding

 = terminator

 Do not roll up excess cable lengths. Shorten the excess cable lengths or fasten them in a meandering pattern.

The length specifications relate to the condition on delivery.

# Fuse box wiring diagram





# Electrical information

## Electrical installation

Only connect to the electricity supply when the device is voltage-free.

**⚠** Inexpertly completed electrical installations and electrical installations that are not completed as stipulated in this guide can cause electric shocks which could result in serious injury or even death, as well as damage to property.

The electrical installation must be implemented in accordance with IEC 60364-4-41 and DIN VDE 0100 by a qualified electrician. Please conform to national statutory regulations, where different.

The appliances may be connected only to original Dornbracht components.

## Equipotential bonding

**⚠** Do not create equipotential bonding over water pipes.

It is essential to use and/or install equipotential bonding cables (4 mm<sup>2</sup> / AWG 11).

### Provided by customer:

- Fuse box in accordance with planning requirements
- Safety cut-out (6 A, type B)
- Ground fault circuit interrupter (30 mA, 2-pin, type A)
- 1 x circuit-breaker switch (16 A)
- 2 x rail mounting TS 35
- Equipotential bonding rail
- Network connection in accordance with TIA 568A, if necessary

## Safety zones

Observe the regulations for protection zones according to DIN VDE 0100, Part 701 (IEC 60364-7-701).

Please conform to national statutory regulations, where different.

Observe the protection rating of each electrical component, only applicable once the device is fully installed.

The following electrical components must be installed outside safety zones 0 – 2: fuse box.

As the WATER BARS, (hand shower set) and SMART TOOLS control elements are operated by safety extra-low voltage (12 V), they can be installed in safety zone 1.

The VBUS connection of electrical components (daisy chain) must end with a terminator.

No more than 5 components should be connected one after the other in the daisy chain.

Dornbracht must be consulted in advance about installations that differ from the planning information.

The total length of the daisy chain may not exceed 30,000 mm / 98 ft 5-1/8".

# Technical data

## General

### Weight

- without mounting frame 45 kg / 100 lbs (US)

### Recess depths

- Concealed rough parts eVALVE (WATER BAR)
  - min. 153 mm / 6"
  - max. 176 mm / 7"
- Concealed rough parts eVALVE (hand shower set)
  - min. 141 mm / 5-1/2"
  - max. 164 mm / 6-1/2"
- SMART TOOLS control elements min. 141 mm / 5-1/2"
- Drilled hole diameter for concealed box 56 mm / 2-1/4"

## Electrotechnical data

### Power supply

#### Power supply unit (fuse box)

- Input voltage 100 – 240 V AC
- Output voltage 12 V DC
- Input frequency 50 – 60 Hz
- Power consumption 46 W

#### Concealed rough parts eValve (WATER BARS, hand shower set)

- Supply voltage 12 V DC
- Degree of protection IP 55
- Equipotential bonding 4 mm<sup>2</sup> / AWG 11

#### SMART TOOLS control elements (display switch and twist controller)

- Supply voltage 12 V DC
- Degree of protection IP X4

## Sanitary specifications

The product is intrinsically safe according to EN 1717.

The thermostat meets the requirements according to EN 1111.

Scalding protection (factory-adjusted) 43 °C / 109 °F

### Size of the supply lines

Hot and cold water 2 x DN 20

### Drainage

– Drainage capacity / drain connection value [DU value]  
 2.1 l/s / 0.6 gps

– Recommended drainage capacity / drain connection value [DU value]  
 DN 75

To choose the perfect drain – taking the flow rate of the entire installation into consideration – an individual determination of requirements is necessary. (e.g. in accordance with EN 12056-1/-2, DIN 1986-100).

### Maximum flow at a flow pressure of 300 kPa / 44 psi / 3 bar

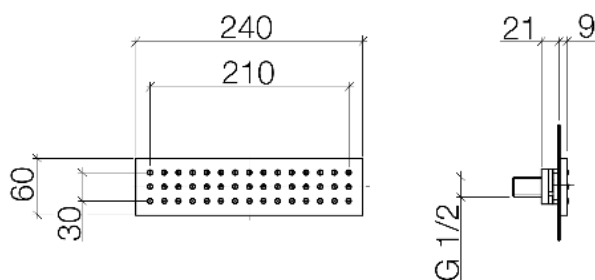
- Total 70 l/min / 18.5 gpm
- BALANCE (5:20 mins.) 140 l / 37.0 gal
- DE-STRESS (5:05 mins.) 123 l / 32.5 gal
- ENERGIZE (5:05 mins.) 104 l / 27.5 gal

## Safety marks

CE

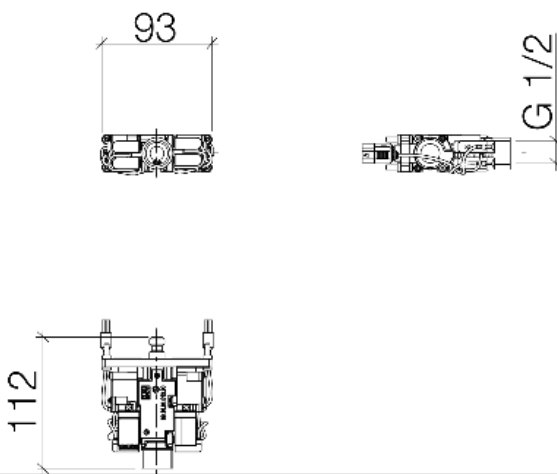
# WaterBar

36 517 979-FF



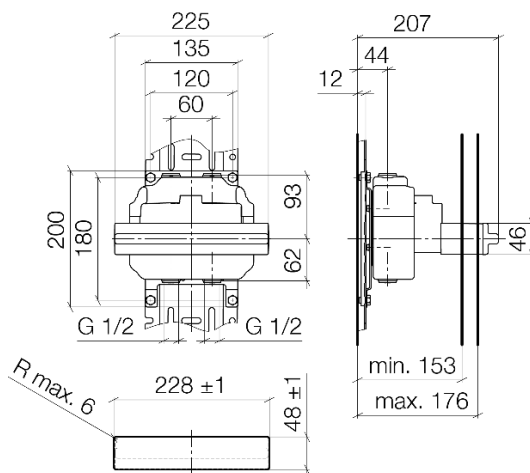
mm

35 315 970 90



mm

35 213 970 90

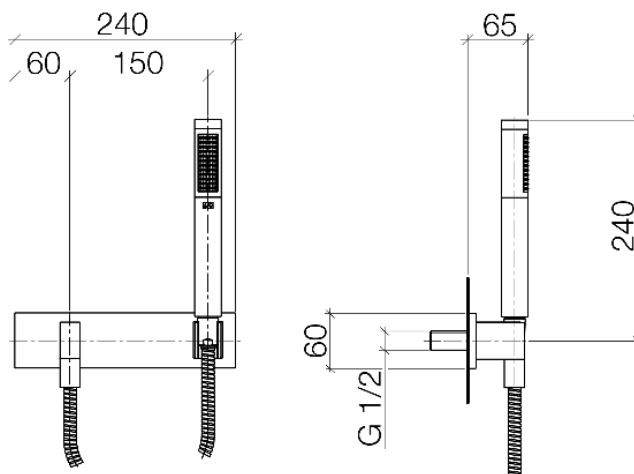


mm

Inch = mm / 25.4

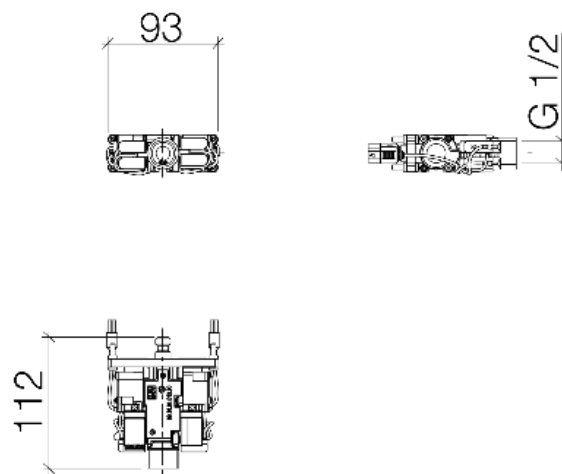
# Hand shower set

27 818 979-FF



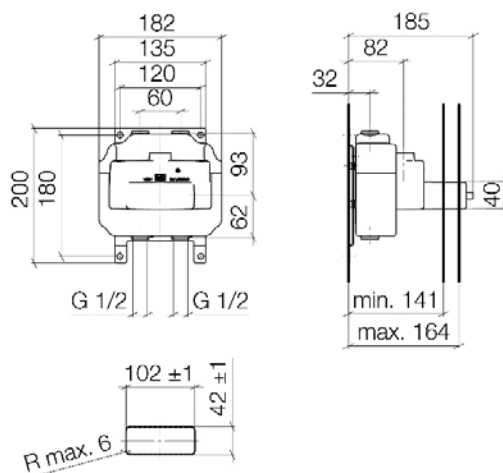
mm

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mm

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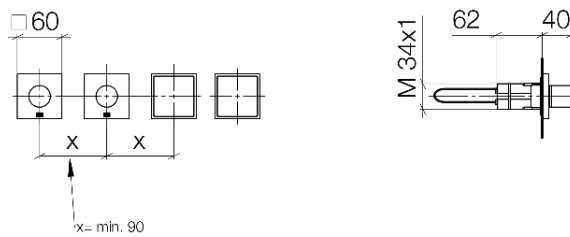


mm

Inch = mm / 25.4

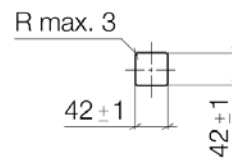
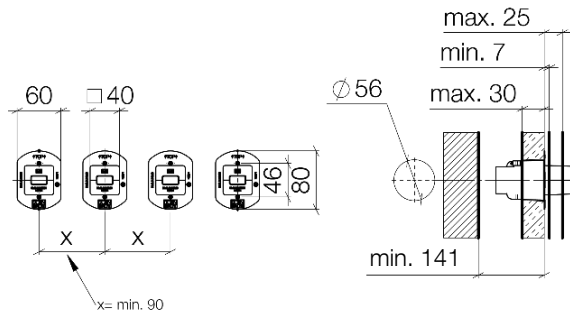
# SMART TOOLS control elements

Smart Tools



mm

Concealed rough parts for  
 SMART TOOLS



mm

Inch = mm / 25.4

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