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A guide to

installing domestic and residential fire sprinkler systems

April 2026

Introduction

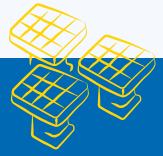
Domestic/residential fire sprinkler systems can be fitted to new and existing residential properties.

For properties where domestic/residential fire sprinkler systems are installed, Anglian Water cannot guarantee pressures and flows above the minimum guarantee standards for pressure and flow. These are 1 bar (10m/head pressure and 9 litres per minute flow. This should always be taken into consideration by the designer/installer before proceeding with any installation.

We would strongly advise any installer to contact Anglian Water to check the pressures and flow available PRIOR to installation, so that the need for any boosters and/or storage can be established before installation.

All domestic sprinkler systems must be notified to Anglian Water under the Water Supply (Water Fittings) Regulations 1999, the notification must include full mechanical drawings showing pipe runs and a fittings schedule.

Anglian Water will not carry out the connection to the mains until we are satisfied that the installation is compliant with the Water Supply (Water Fittings) Regulations 1999 and British Standards BS 9251.



22% of the energy we use comes from renewable sources.

Water supply arrangements for domestic/residential fire sprinkler systems

The following gives details of the arrangements that can be used to give an adequate water supply to the domestic/residential fire sprinkler system:

Direct mains fed systems

- These are systems where the mains pressure and flow delivery is adequate to feed the fire sprinkler operating requirements directly. The use of a priority demand valve may be used on such systems, this is to ensure that in the event of operating the fire sprinkler system, the branch of the pipework feeding domestic demand will be automatically shut down.

Mains fed boosted systems

- This type of system could be utilised where there may be inadequate pressure to meet the fire sprinkler systems requirements. In this instance Anglian Water will consider giving approval for an in line booster pump of an appropriate rating to be installed. The pump must be solely triggered by the flow within the fire sprinkler system and must not support any element of the domestic demand or other non domestic usage within the premise(s). This system can only be fitted with consent of Anglian Water.

Storage and boosted systems

- This type of system relies upon a stored volume of water (a cistern) to meet the demands of the fire sprinkler system. All such storage cisterns must have appropriate backflow prevention arrangements at the inlet. The dedicated feed pipe from any storage cistern will usually feed a booster pump of an appropriate rating to meet the demand of the fire sprinkler system.

Meters

- It is Anglian Water's policy not to meter the supply to the domestic fire sprinkler system, but a meter will be installed on the domestic usage supply.

The applicant/installer will:

- Send in a completed application form together with the mechanical drawings showing all pipework and the fittings schedule as required by the Water Supply (Water Fittings) Regulations 1999. Failure to supply the mechanical drawing and fittings schedule will result in delays with the application being processed.
- Use a single point of connection to Anglian Water's main for both domestic/residential fire sprinkler and domestic water supply systems.
- Arrange for all internal and external pipework and fittings to be installed by a 'competent' installer.
- Ensure that all water fittings relating to the domestic/residential fire sprinkler system including backflow prevention devices, and valves, remain within the property boundary.
- Ensure that all external fittings relating to the domestic/residential fire sprinkler system including backflow prevention devices and valves, are accessible and installed so that they can be appropriately maintained, serviced and replaced.
- Request a replacement, or upgraded service pipe if domestic/residential sprinkler system is to be installed within an existing premise(s), and the existing service pipe is not able to deliver the required flow.
- Pay all connection charges and infrastructure charges before Anglian Water undertake any work.
- Ensure that all water fittings are installed and used in compliance with the Water Supply (Water Fittings) Regulations 1999.
- Where a fire sprinkler system is not installed and certified by an approved contractor (as defined under regulation 6, Water Supply (Water Fittings) Regulations 1999, arrange for an inspection of the water supply system before Anglian Water undertake any connection tasks.
- Rectify, alter or effectively remediate any non compliant water fittings identified within any agreed timescales.
- Ensure the occupier is aware of their responsibilities regarding maintenance and testing of the domestic/residential fire sprinkler system.
- Ensure the domestic/residential fire sprinkler system is designed, installed and used in accordance with all current regulatory and nationally recognised standards or guidelines, BS9251.
- Ensure no fire sprinkler water passes through a meter. Ensure full system is installed prior to inspection including the controls and priority valve, prior to requesting inspection and connection.
- Inform Anglian Water of the proposed fire sprinkler system type if the new system is to be installed in a residential development.

Types of system:

- **Wet pipe system.**
- **Water mist system.**
- **Dry-pipe system.**
- **Alternate wet and dry system.**
- **Tail end alternate or tail end dry-pipe system.**
- **Pre-action system.**

We will:

- Respond to enquiries regarding domestic/residential fire sprinkler systems within ten working days of receipt.
- Respond to formal applications with connection charges and supporting information within our levels of service of 20 working days of receiving completed application.
- Review and comment on formal applications giving consent, consent with conditions or refusing consent to install within our levels of service of 20 working days of receiving completed application.
- Retain records of the types and locations of fire sprinkler systems, where they have been lawfully installed.
- Apply and enforce the Water Supply (Water Fittings) Regulations 1999 to fire sprinkler systems
- Undertake a planned inspection of the water supply system to ensure compliance with the Water Supply (Water Fittings) Regulations 1999 and BS 9251.
- Choose to undertake an audit inspection where the fire sprinkler system has been installed and self certified by a nationally recognised approved contractor.
- Provide new service or upgrade to existing service within our levels of service of ten working days after payment of required charges and appropriate evidence of compliance with the Water Supply (Water Fittings) Regulations 1999 compliance has been confirmed.
- Install a controlling valve within the public highway which can be used for isolating both the domestic and fire sprinkler supplies if required.
- Ensure that water used for fire fighting purposes is not metered.
- Ensure that the installation of any meters will not disrupt the flow rate for the fire sprinkler system. Meters will be used to record domestic consumption only.

Further information:

Further information on domestic/residential fire sprinkler systems and installers can be obtained via:

BAFSA (British Automatic Fire Sprinkler Association)
Richmond House
Broad Street Ely
CB7 4AH

01353 659 187

info@bafsa.org.uk
bafsa.org.uk

Groundbreaker Systems
13 Farriers Road
Stowmarket
Suffolk
IP14 2NS

01449 673451

sales@groundbreaker.co.uk
groundbreaker.co.uk

The Fire Sprinkler Association
Mill House
Mil Lane
Padworth
Reading
Berks
RG7 4JX

0118 971 2322

info@firesprinklers.org.uk
firesprinklers.org.uk

Example illustrations of typical and acceptable domestic/residential fire sprinkler system arrangements

Figure 1

Mains fed boosted system (by consent of Anglian Water)

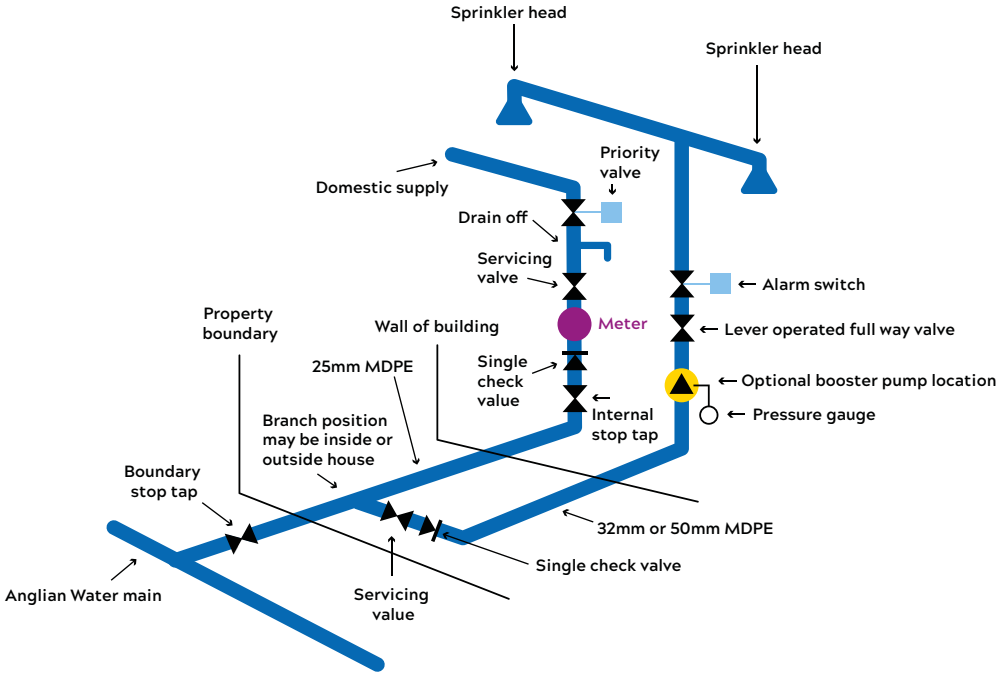
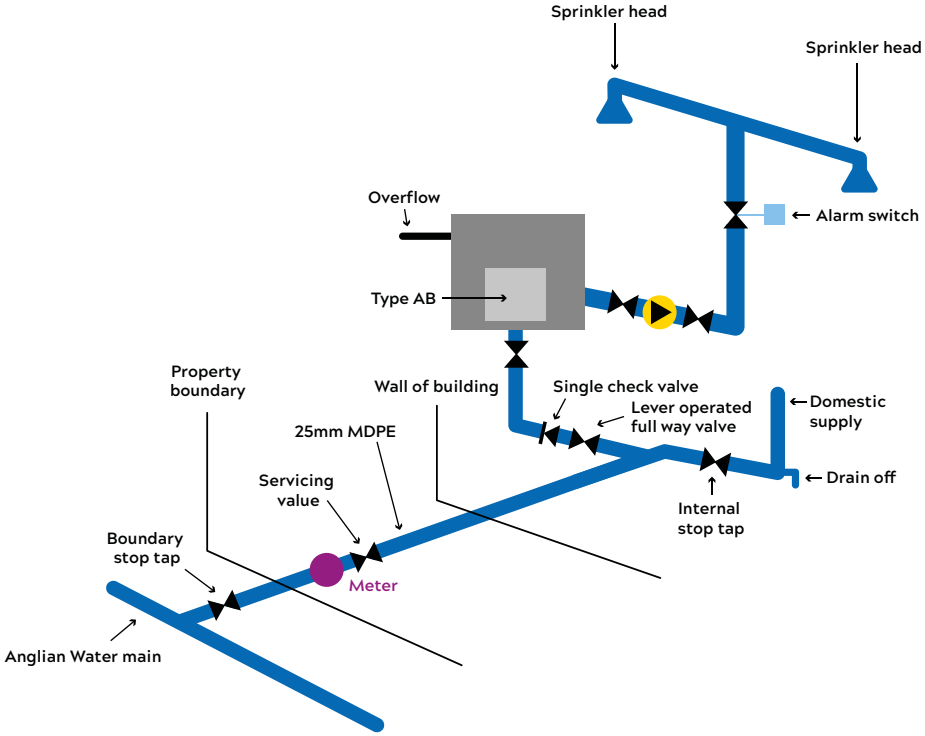


Figure 2

Storage and boosted system



Example illustrations of typical and acceptable domestic/residential fire sprinkler system arrangements

Figure 3

Direct system with boundary box

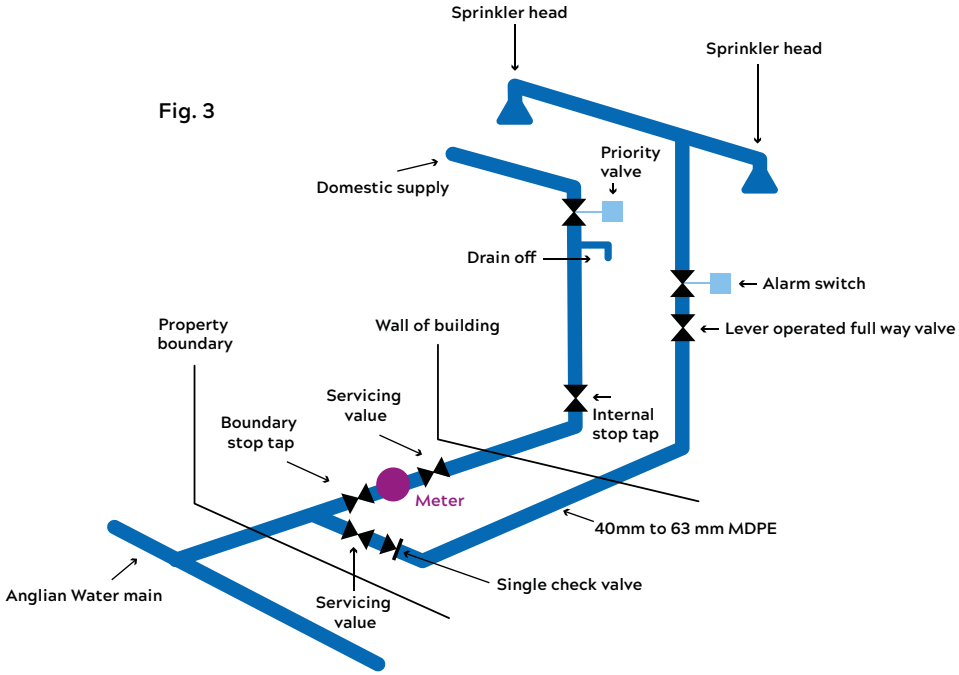
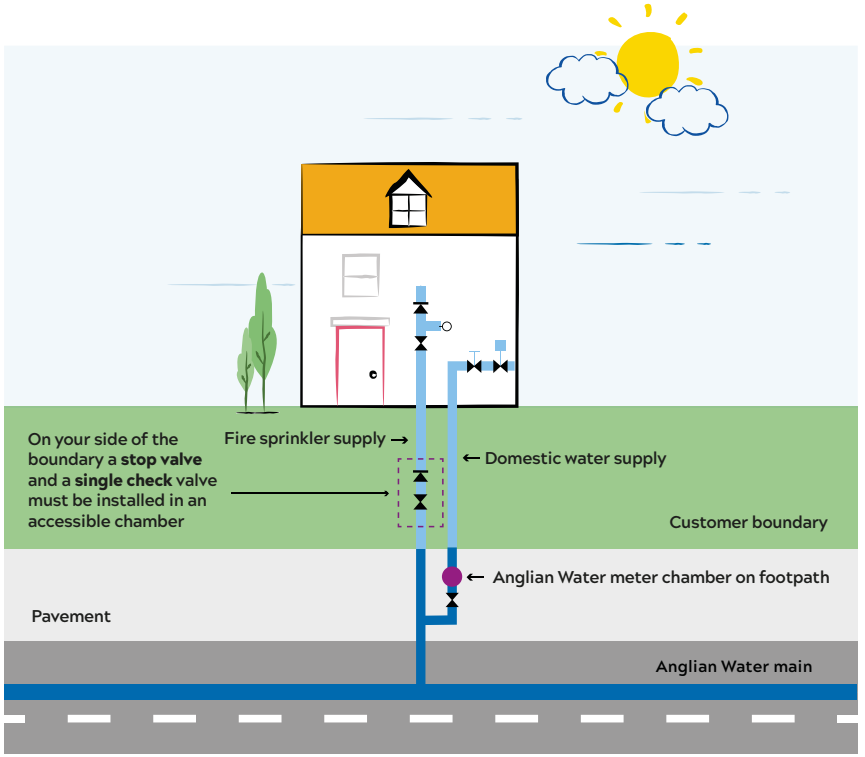


Figure 4

Direct system with groundbreaker wall box



Example illustrations of typical and acceptable domestic/residential fire sprinkler system arrangements

Figure 5

Typical mains fed fire sprinkler system (metered domestic supply)

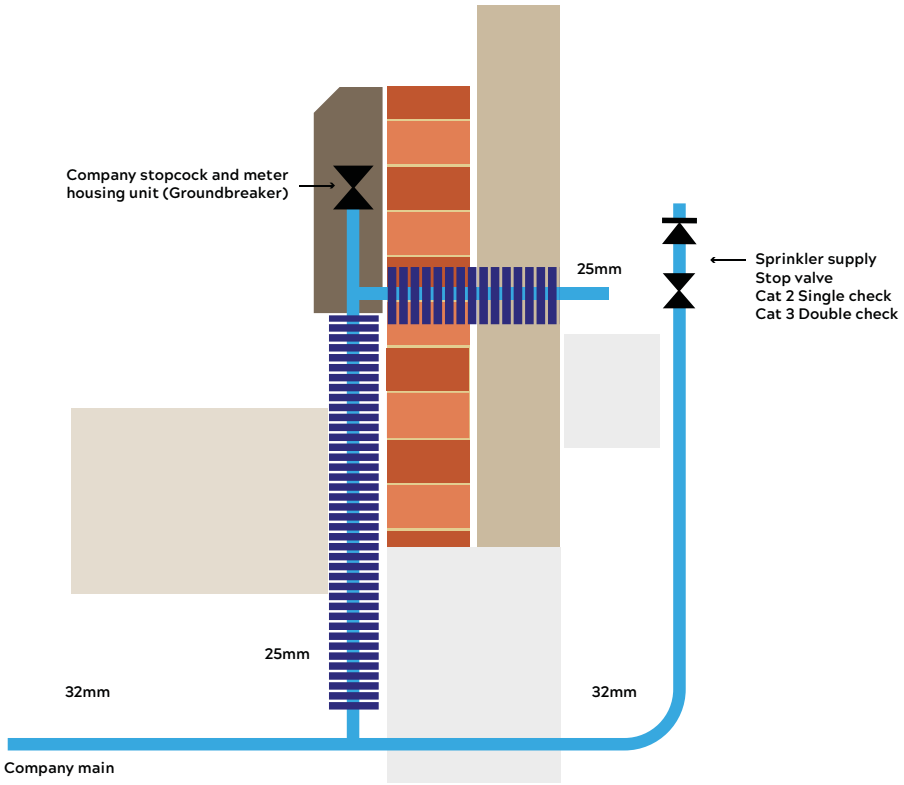


Figure 6

Pipe identification banding - BS1710:2014

Basic pipeline identification colours can be applied over the whole length of a pipe, or as shown on the right, in the form of bands.

In the case of banding the minimum band width for a pipe identifier (basic identification, plus codes, safety colours) is dependent upon the pipe diameter:

- **Pipe diameters up to 50mm, minimum band width 130mm**

  (basic identification colour 50mm, code or safety colour 30mm).

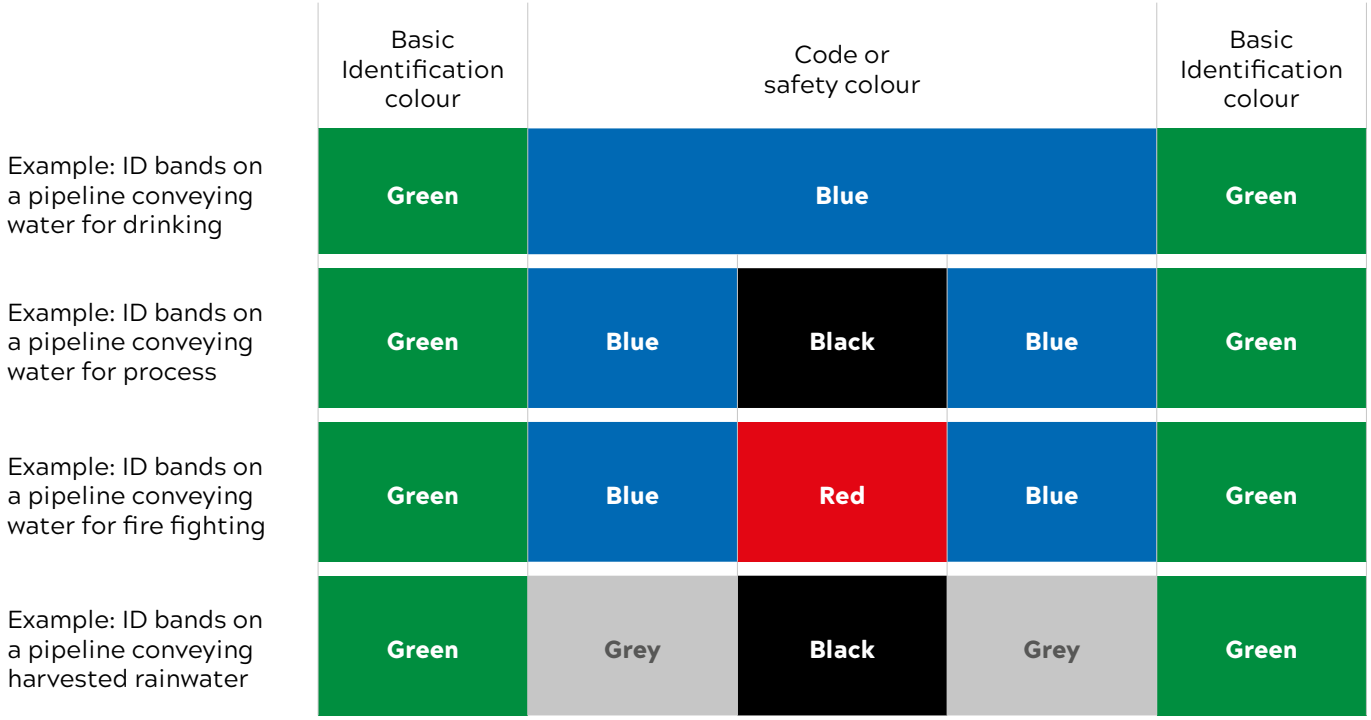
- **Pipe diameters 50mm to 100mm, minimum band width 275mm**

  (basic identification colour 100mm, code or safety colour 75mm).

  Pipe diameters above 100mm, minimum band width 450mm

  (basic identification colour 150mm, code or safety colour 150mm).

There are now many pipe identifier tapes available that have the correct colour banding requirements, directional arrows and, also text identifying the type of system the pipe is connected to.



See examples below:

Banding with directional arrows and text:
Potable Water, Drinking Water, BCWS, MCW, CWM, CWS, CWDS

Banding with directional arrows and text:
Chilled Water Flow/Return, Heating Flow/Return, C.T. Heating Flow/Return, V.T. Heating Flow/Return, Solar Heating Flow/Return, L.T.H.W. Flow/Return, M.T.H.W. Flow/Return, H.T.H.W. Flow/Return, Non Drinking Water, Non Potable Water, Condenser Water Flow/Return, Cooling Water Flow/Return, Lab Water, R.O.Water, Process Water, CAT 5, HWS flow, HWS return, DHWS flow, DHWS return, Softened Water, Softened BCWS, TCW.

Banding with directional arrows and text:
Sprinkler, Sprinkler High Pressure, Sprinkler Low Pressure
Dry Riser, Wet Riser, Fire Main, Drain

Banding with directional arrows and text:
Rainwater Harvesting, Grey Water, Reclaimed Water, Condensate

For further information

Please contact Anglian Water if you have any further questions about water fitting regulations.

Call: **0345 60 66 087**

Email: waterregulations@anglianwater.co.uk

Web: anglianwater.co.uk/waterregs

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