PILLAR FIRE HYDRANT WITH FRACTURE SYSTEM type LNH1

<Two in one = hydrant + isolating pre-valve>

<Double reliability = use even when main valve is defective>

<high flow Kv = 142 m³/h>

PROCUREMENT DATA *1

* Name: Fragile above ground fire hydrant
* Made in accordance with the standard EN14384*2 CE
* Nominal sizes: DN80, PN16
* With isolation „prevalve" *With control valve
* Use even when the main valve seal is broken
* With the blocking of unauthorized activation, or not
* Flow Kv [m³/h]: (for Di=2x50) → min 140
* Activation moment MOT: <60 Nm (Class 1)
* Repair of the main valve: the other hydrants remain in operation, without digging up the ground and without dismantling the hydrant body
* Break (4.1) of the hydrant body: without damage to the underground part of the hydrant and without water leakage (with the condition "proper foundation");*3
* Breaking force F: max 1200 daN
* Input connection: Flange EN1092-2 (DN80, PN16) (DN100, PN16) / Particular request, "describe"
* Nominal height Hi: (1300) (1500) (1800) mm / Particular request, "describe"
* Outlet opening Di: (2x50+1x65) mm / Particular request, "describe"
* Output couplings: → Specify label and standard
* Drainage: With → D1 / D2 (particular request); Without
* Medium: Water (technical) (drinking)
* Deliver documents:
  - "Prospect";
  - "Test Report",issued by an "authorized body";
  - Valid "Certificate of Conformity", issued by an "authorized body"

*1 → If necessary, "omit/add"

*2 → **The standard determines the min. performance, and recommends the better**

Appearance:

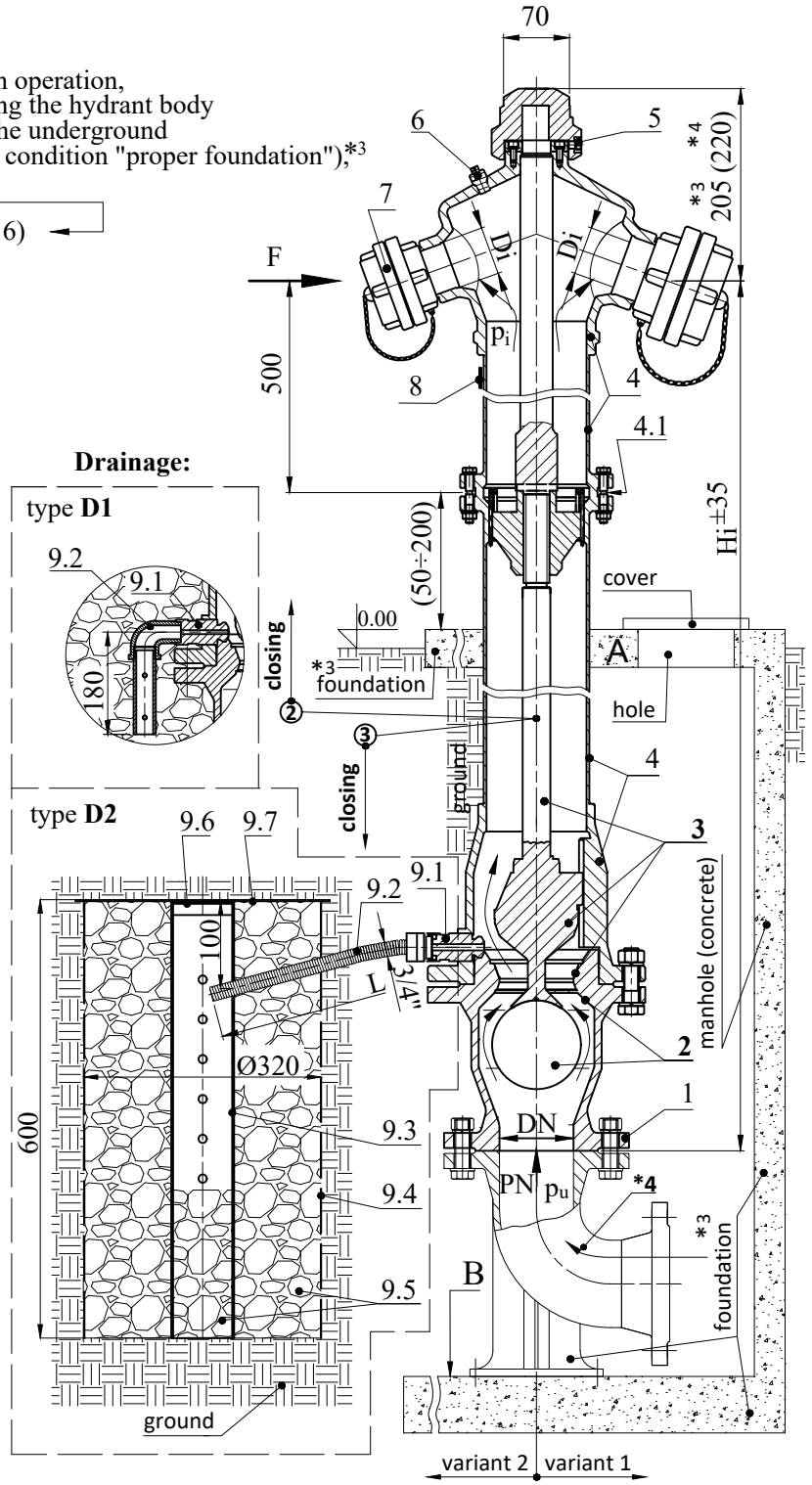
1. Inlet flange
2. Isolation **"pre-valve"**
3. Obtutator - **"main valve"**
4. Body 4.1 Place of breaking due to force F
5. Blocking of unauthorized activation
6. Control valve (safety; sealing)
7. Output couplings
8. Identification plate ("CE","K_v",...)
9. **Drainage drain:** (not defined by the standard)

type **D1:**
9.1 Drain valve
9.2 Drain pipe
9.3 Stones *4 → (16÷31) mm

type **D2:**
9.1 Drain valve
9.2 Drain pipe → (L=?) mm
9.3 Distribution pipe
9.4 Wired basket
9.5 Stones *4 → (16÷31) mm
9.6 Cover
9.7 Plastic foil*4

*4 → **Provided by the buyer**

Appearance



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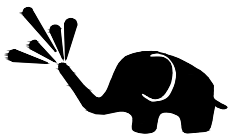
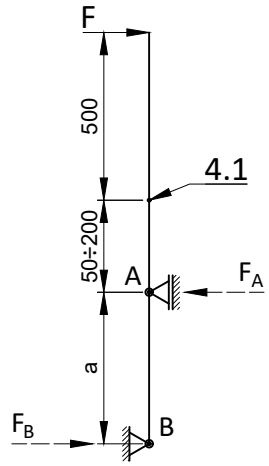


Basic technical characteristics:

* **Safe = compliant with the** requirements of the standard **EN 14384** = CE
* **Purpose:** Taking water from underground pipelines
  for fire fighting and communal needs
* → **See "Order information" L1/2**
* **Flow: Kv=142 m³/h,** for Di=2x50
* **Moment of activation Mot: max 50 Nm (Class 1)**
* **breaking force**..... F=1100 daN
* **foundation** .....
* **weight** ..... ~ (53÷67) daN for Hi (1300÷1800) mm
* **materials**:
  - hydrant body .....nodular cast / stainless steel
  - obtutator seat.....brass
  - outlet couplings.....alumunium
  - spindle .....stainless steel
  - sealants.....elastomers

*3

Load scheme
(obligation under the standard)



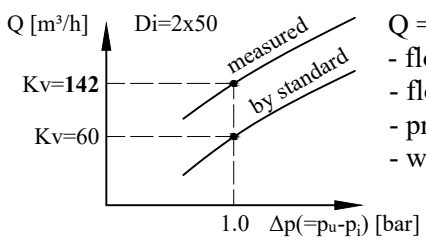
Advantages:

* Isolation **pre-valve** (2) **inside the hydrant**, automatic, self-blocking, which enables:
- **the use of a hydrant even when the main valve** (3) **is defective**,
- **that the other hydrants remain in operation even when the main valve seal is replaced**
- **to omit a** separate isolation valve **in front of the hydrant**,
- **lower cost** of procurement and maintenance of the hydrant network.

* **High flow: Kv=142 m³/h,** for Di=2x50
* **In case of breakage due to force F: the hydrant remains closed, and the part of the hydrant below the breakage point remains undamaged,**
* **Replacing the main valve seal: without digging up the ground and without disassembling the body,**
* **Possibility of blocking (6) unauthorized activation,**
* The main valve seal **is conical, self-flushing =** dirt retention prevented **= longer service life of the seal,**
* **Great strength of the** obturator and the body of the hydrant, MsT > 250 Nm,
* **Easy activation: Class 1, MOT < 50 Nm** (max allowed 125 Nm; Class 3),
* **Quick activation:** 1 turn until water appears, 8 turns until maximum flow (max. 15 turns allowed),
* **High reliability of the** drainage system **= two outlet openings, and self-flushing drainage valve**
* **The possibility of easy control** (7) **of the correctness of the hydrant,**
* **Obtutator tightness even after 1000 activations,**
* **The amount of residual water** in the hydrant body, < 80 cm³ (max. allowed 100 cm³),
* **Fast drainage, ≤5 min** (allowed max. 10 min/m),
* **Easy replacement of seat,** main valve (3) and pre-valve (2)
* **Drainage valve** (9.1) **repair;** from the outside, partial excavation, **and without dismantling the hydrant body.**(4)

Documents with the delivery of hydrant:
* Declaration of Performance,
  or Certificate of Constancy of Performance
* Instruction for safety work (installation, handling, inspection, maintenance, guarantee)

Flow of hydrant:



$Q = K_v \times (1000\Delta p / \rho)^{1/2}$
- flow..... Q = [m³/h]
- flow coefficient..... K_v = [m³/h]
- pressure difference..... Δp = [bar]
- water density..... ρ = [kg/m³]

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