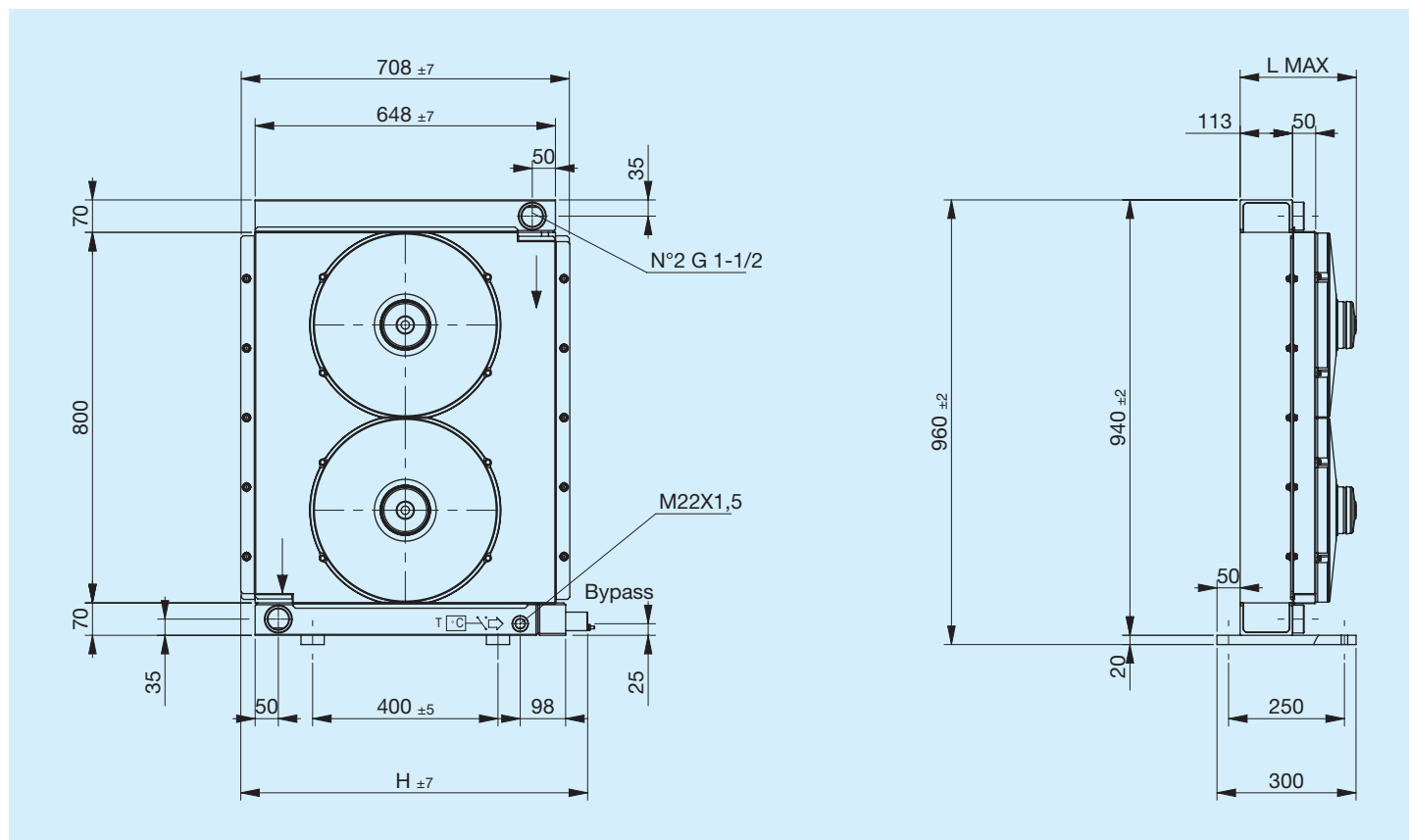


## A83

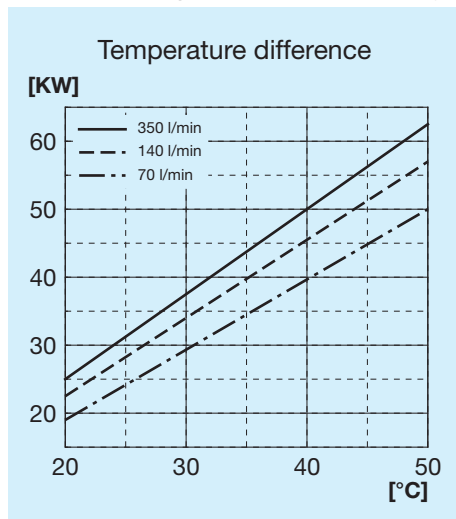


Before using the heat exchanger, carefully read the document entitled GENERAL OPERATING INSTRUCTIONS FOR HEAT EXCHANGER USE.

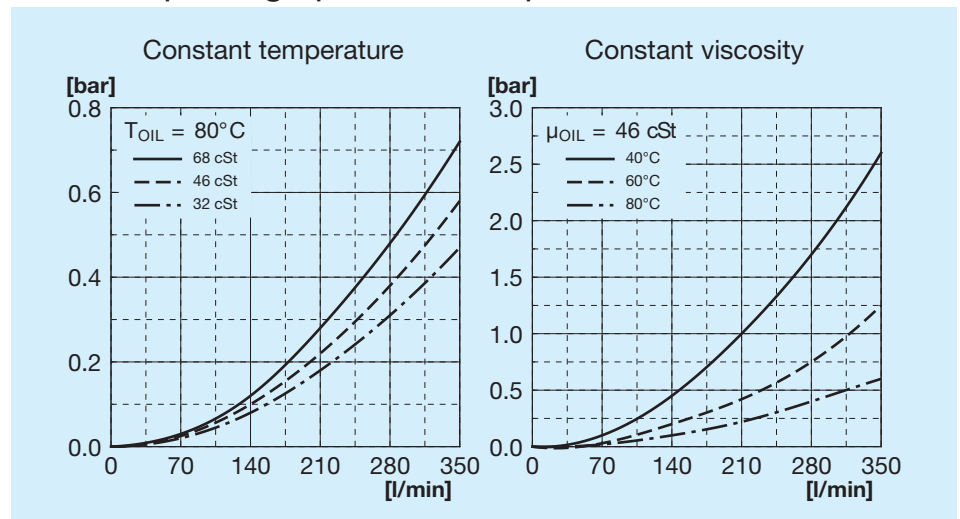


| Code        | Description                             | Ø Fan<br>mm | Air flow<br>m³/h | Voltage<br>V | Amperage<br>A | L Max<br>mm | H<br>mm | Weight<br>Kg | Capacity<br>l |
|-------------|-----------------------------------------|-------------|------------------|--------------|---------------|-------------|---------|--------------|---------------|
| FR633243103 | A83 2EAP 12V bypass T15 V.T. 6 bar 50°C | 2X385       | 2X4000           | 12           | 2X22          | 250         | 749     | 45           | 23            |
| FR633243104 | A83 2ESP 12V bypass T15 V.T. 6 bar 50°C | 2X385       | 2X4000           | 12           | 2X22          | 250         | 749     | 45           | 23            |
| FR633241003 | A83 2EAP 12V bypass T15 VNR 4.5 bar     | 2X385       | 2X4000           | 12           | 2X22          | 250         | 711     | 45           | 23            |
| FR633241004 | A83 2ESP 12V bypass T15 VNR 4.5 bar     | 2X385       | 2X4000           | 12           | 2X22          | 250         | 711     | 45           | 23            |
| FR633243113 | A83 2EAP 24V bypass T15 V.T. 6 bar 50°C | 2X385       | 2X4000           | 24           | 2X11          | 250         | 749     | 45           | 23            |
| FR633243114 | A83 2ESP 24V bypass T15 V.T. 6 bar 50°C | 2X385       | 2X4000           | 24           | 2X11          | 250         | 749     | 45           | 23            |
| FR633241013 | A83 2EAP 24V bypass T15 VNR 4.5 bar     | 2X385       | 2X4000           | 24           | 2X11          | 250         | 711     | 45           | 23            |
| FR633241014 | A83 2ESP 24V bypass T15 VNR 4.5 bar     | 2X385       | 2X4000           | 24           | 2X11          | 250         | 711     | 45           | 23            |
| FR633240003 | A83 2EAP 12V                            | 2X385       | 2X4000           | 12           | 2X22          | 250         | 710     | 45           | 23            |
| FR633240004 | A83 2ESP 12V                            | 2X385       | 2X4000           | 12           | 2X22          | 250         | 710     | 45           | 23            |
| FR633240013 | A83 2EAP 24V                            | 2X385       | 2X4000           | 24           | 2X11          | 250         | 710     | 45           | 23            |
| FR633240014 | A83 2ESP 24V                            | 2X385       | 2X4000           | 24           | 2X11          | 250         | 710     | 45           | 23            |

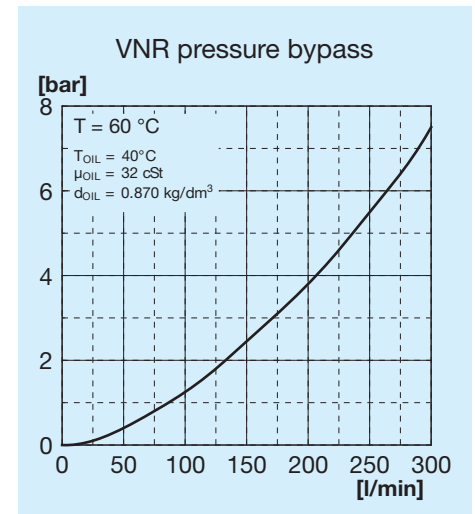
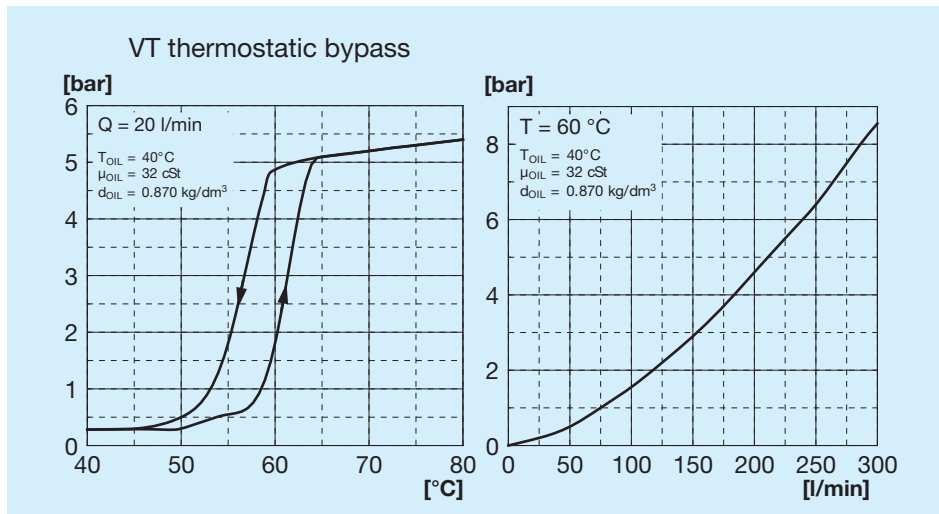
## Heat exchange (thermal) capacity



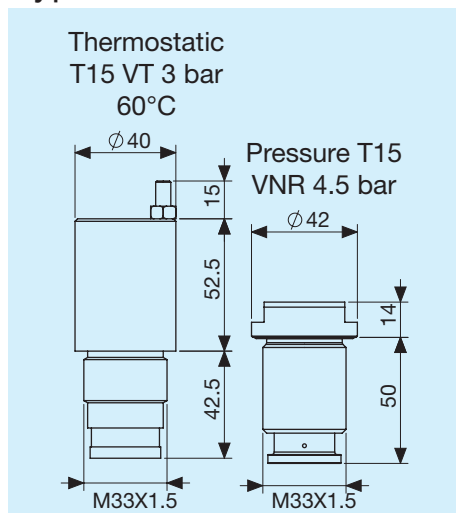
## Radiator passage pressure drop



## Bypass passage load loss

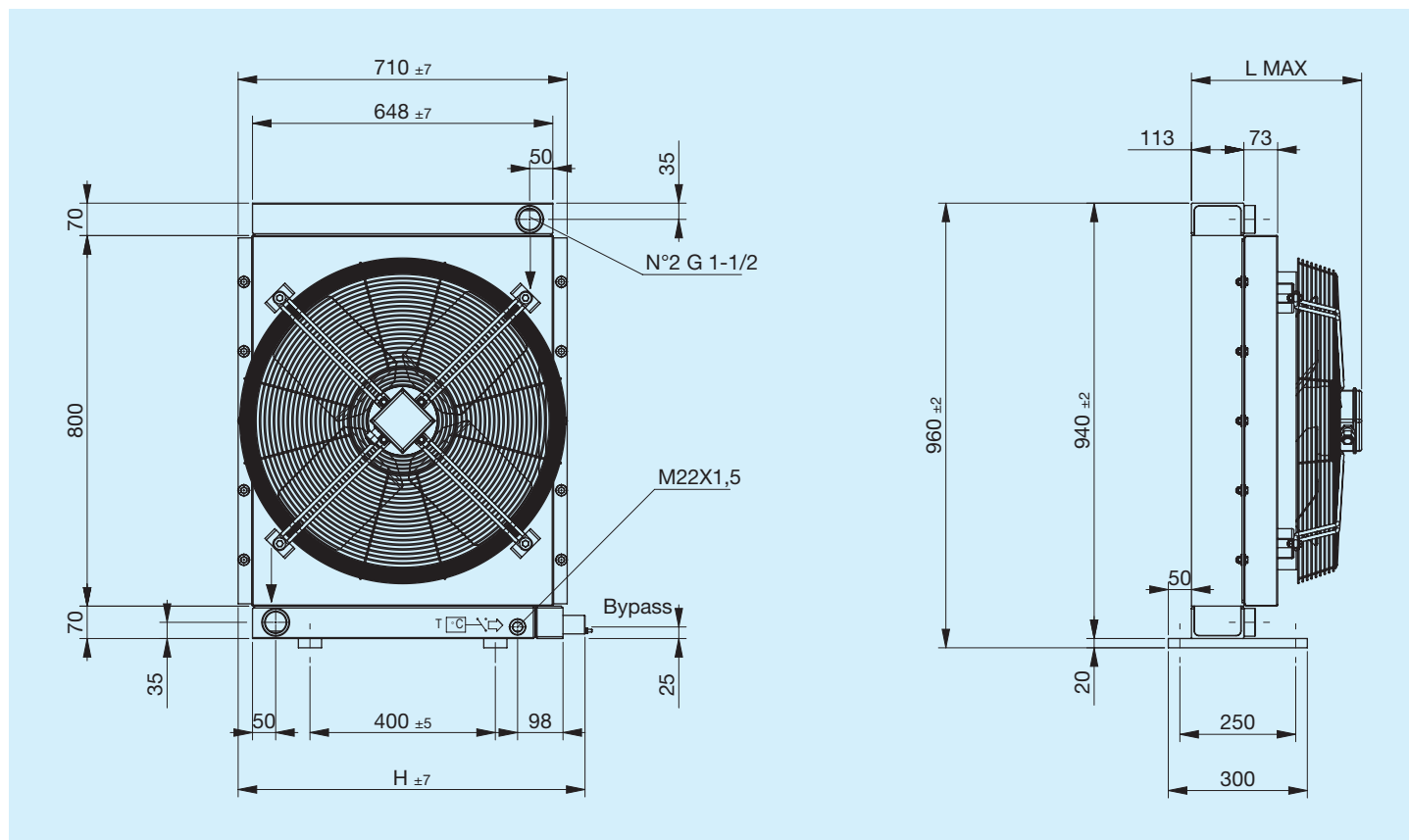


## Bypass valves



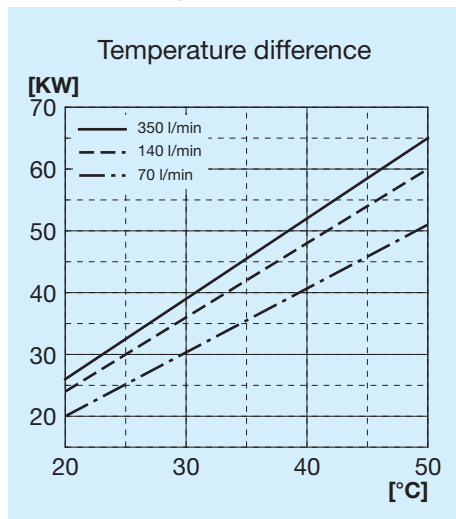
## Legend

|         |                                          |
|---------|------------------------------------------|
| A56     | Exchanger type                           |
| 1E      | 1 Fan unit                               |
| AP      | High power aspirating                    |
| SP      | High power blower                        |
| AX      | Extra high power aspirating              |
| SX      | Extra high power blower                  |
| 12V     | Fan unit voltage                         |
| 24V     | Fan unit voltage                         |
| T15 VT  | Thermostatic bypass valve 3 bar 60u00b0C |
| T15 VNR | Pressure bypass valve at 4.5 bar         |

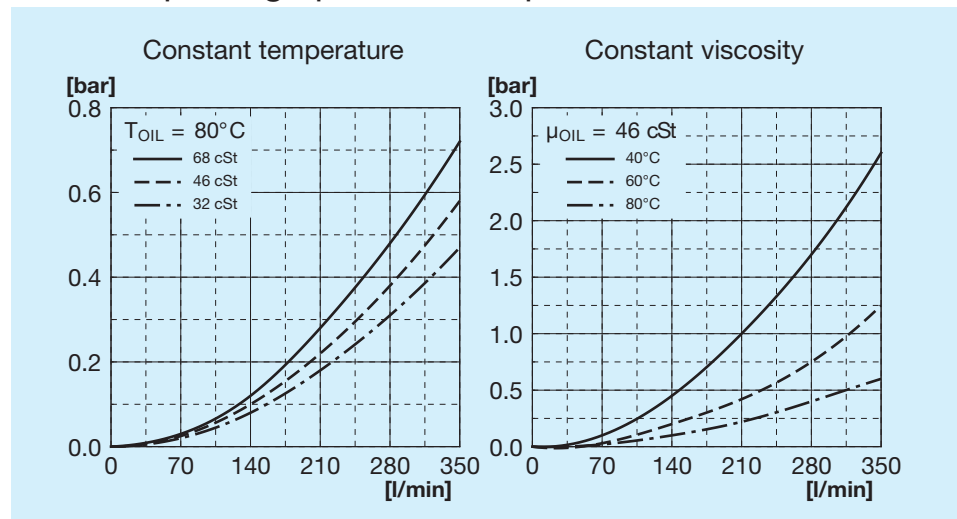


| Code        | Description                             | Ø Fan<br>mm | Power<br>W | Frequen-<br>cy<br>Hz | Velocity<br>min <sup>-1</sup> | IP<br>Rating | L Max<br>mm | H<br>mm | Weight<br>Kg | Capacity<br>l |
|-------------|-----------------------------------------|-------------|------------|----------------------|-------------------------------|--------------|-------------|---------|--------------|---------------|
| FR633243131 | A83 1EA 230V bypass T15 V.T. 6 bar 50°C | 630         | 600        | 50                   | 860                           | 54           | 359         | 749     | 52           | 23            |
| FR633243132 | A83 1ES 230V bypass T15 V.T. 6 bar 50°C | 630         | 600        | 50                   | 860                           | 54           | 359         | 749     | 52           | 23            |
| FR633241031 | A83 1EA 230V bypass T15 VNR 4.5 bar     | 630         | 600        | 50                   | 860                           | 54           | 359         | 711     | 52           | 23            |
| FR633241032 | A83 1ES 230V bypass T15 VNR 4.5 bar     | 630         | 600        | 50                   | 860                           | 54           | 359         | 711     | 52           | 23            |
| FR633243121 | A83 1EA 400V bypass T15 V.T. 6 bar 50°C | 630         | 570<br>920 | 50<br>60             | 900<br>990                    | 54           | 359         | 749     | 52           | 23            |
| FR633243122 | A83 1ES 400V bypass T15 V.T. 6 bar 50°C | 630         | 640<br>790 | 50<br>60             | 890<br>1005                   | 54           | 359         | 749     | 52           | 23            |
| FR633241021 | A83 1EA 400V bypass T15 VNR 4.5 bar     | 630         | 570<br>920 | 50<br>60             | 900<br>990                    | 54           | 359         | 711     | 52           | 23            |
| FR633241022 | A83 1ES 400V bypass T15 VNR 4.5 bar     | 630         | 640<br>790 | 50<br>60             | 890<br>1005                   | 54           | 359         | 711     | 52           | 23            |
| FR633240031 | A83 1EA 230V                            | 630         | 600        | 50                   | 860                           | 54           | 359         | 710     | 52           | 23            |
| FR633240032 | A83 1ES 230V                            | 630         | 600        | 50                   | 860                           | 54           | 359         | 710     | 52           | 23            |
| FR633240021 | A83 1EA 400V                            | 630         | 570<br>920 | 50<br>60             | 900<br>990                    | 54           | 359         | 710     | 52           | 23            |
| FR633240022 | A83 1ES 400V                            | 630         | 640<br>790 | 50<br>60             | 890<br>1005                   | 54           | 359         | 710     | 52           | 23            |

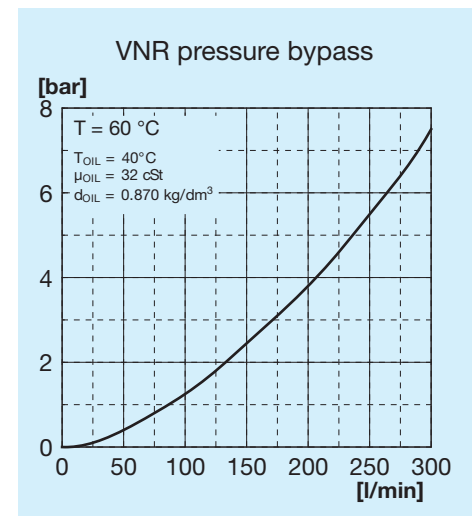
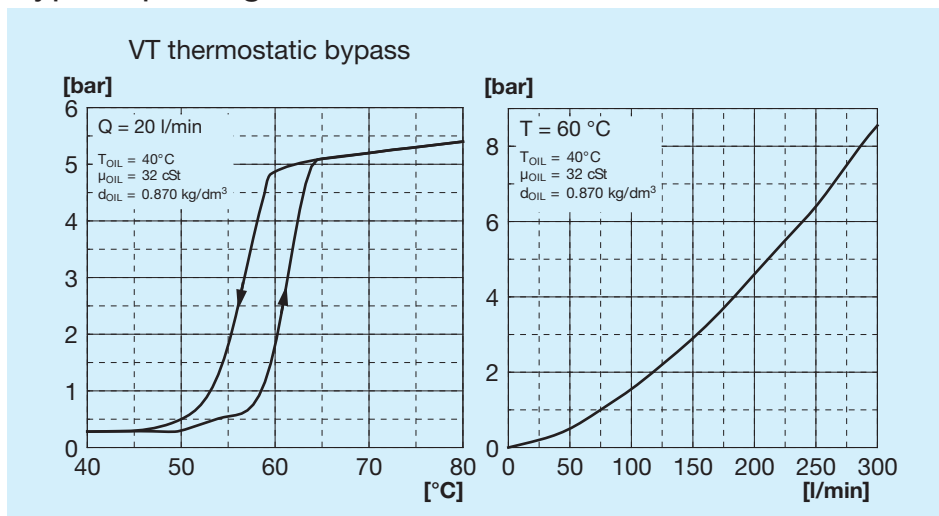
## Heat exchange (thermal) capacity



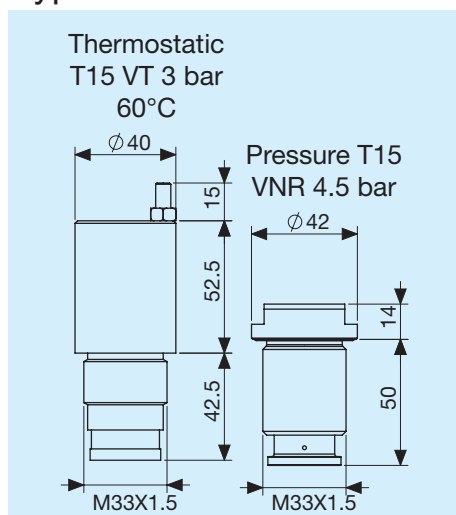
## Radiator passage pressure drop



## Bypass passage load loss

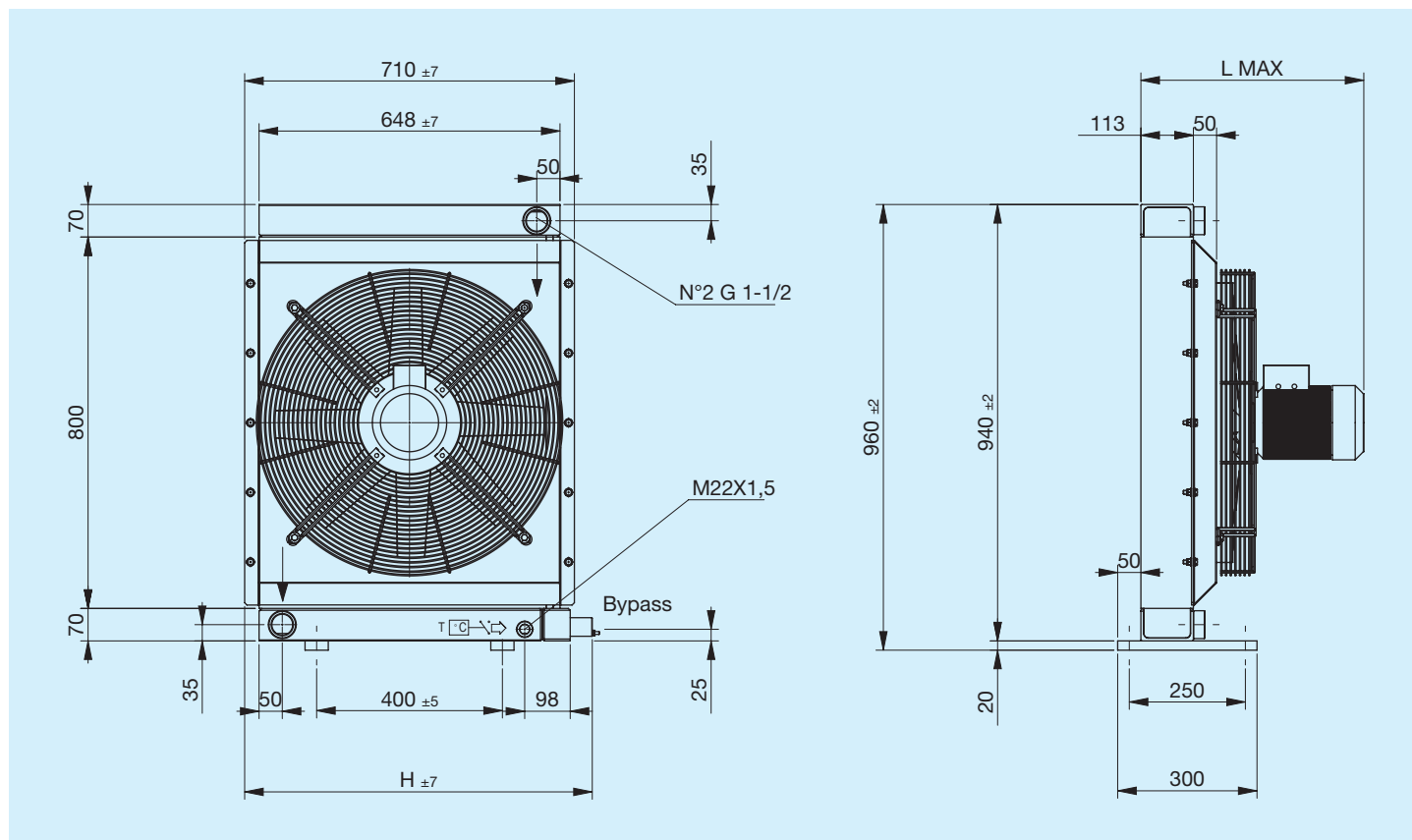


## Bypass valves



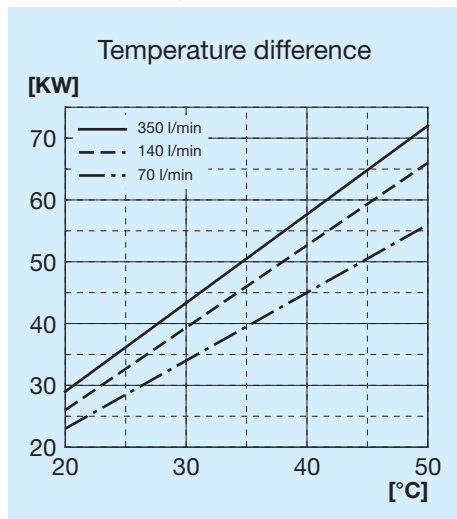
## Legend

|         |                                          |
|---------|------------------------------------------|
| A56     | Exchanger type                           |
| 1E      | 1 Fan unit                               |
| AP      | High power aspirating                    |
| SP      | High power blower                        |
| AX      | Extra high power aspirating              |
| SX      | Extra high power blower                  |
| 12V     | Fan unit voltage                         |
| 24V     | Fan unit voltage                         |
| T15 VT  | Thermostatic bypass valve 3 bar 60u00b0C |
| T15 VNR | Pressure bypass valve at 4.5 bar         |

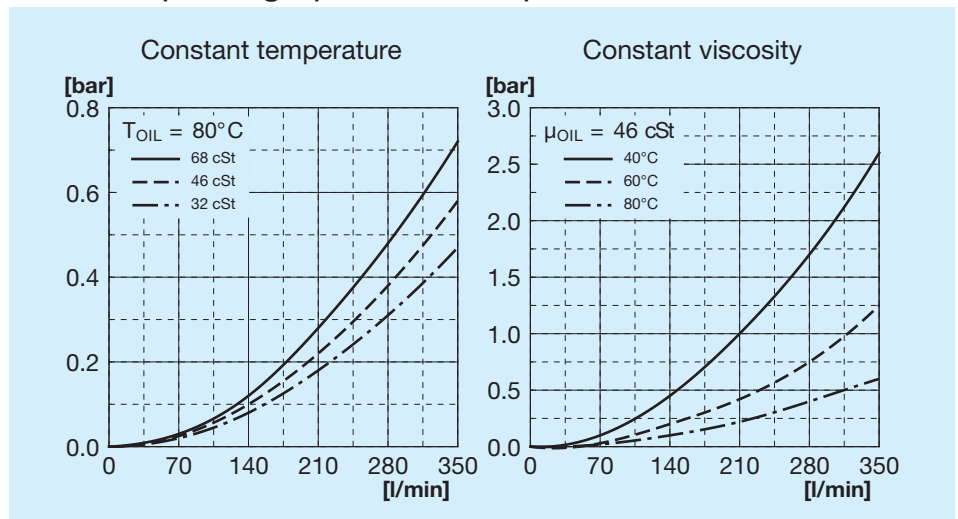


| Code        | Description                                 | Ø Fan<br>mm | Power<br>W | Frequen-<br>cy<br>Hz | Velocity<br>min <sup>-1</sup> | IP<br>Rating | L Max<br>mm | H<br>mm | Weight<br>Kg | Capacity<br>l |
|-------------|---------------------------------------------|-------------|------------|----------------------|-------------------------------|--------------|-------------|---------|--------------|---------------|
| FR633243141 | A83 1EA 220V-B14 bypass T15 V.T. 6 bar 50°C | 580         | 750        | 50                   | 1390                          | 65           | 477         | 749     | 60.5         | 23            |
| FR633243142 | A83 1EA 220V-B14 bypass T15 V.T. 6 bar 50°C | 580         | 750        | 50                   | 1390                          | 65           | 477         | 749     | 60.5         | 23            |
| FR633241041 | A83 1EA 220V-B14 bypass T15 VNR 4.5 bar     | 580         | 750        | 50                   | 1390                          | 65           | 477         | 711     | 60.5         | 23            |
| FR633241042 | A83 1EA 220V-B14 bypass T15 VNR 4.5 bar     | 580         | 750        | 50                   | 1390                          | 65           | 477         | 711     | 60.5         | 23            |
| FR633243151 | A83 1EA 380V-B14 bypass T15 V.T. 6 bar 50°C | 580         | 750        | 50                   | 1390                          | 65           | 477         | 749     | 60.5         | 23            |
| FR633243152 | A83 1ES 380V-B14 bypass T15 V.T. 6 bar 50°C | 580         | 750        | 50                   | 1390                          | 65           | 477         | 749     | 60.5         | 23            |
| FR633241051 | A83 1EA 380V-B14 bypass T15 VNR 4.5 bar     | 580         | 750        | 50                   | 1390                          | 65           | 477         | 711     | 60.5         | 23            |
| FR633241052 | A83 1ES 380V-B14 bypass T15 VNR 4.5 bar     | 580         | 750        | 50                   | 1390                          | 65           | 477         | 711     | 60.5         | 23            |
| FR633240041 | A83 1EA 220V-B14                            | 580         | 750        | 50                   | 1390                          | 65           | 477         | 710     | 60.5         | 23            |
| FR633240042 | A83 1ES 220V-B14                            | 580         | 750        | 50                   | 1390                          | 65           | 477         | 710     | 60.5         | 23            |
| FR633240051 | A83 1EA 380V-B14                            | 580         | 750        | 50                   | 1390                          | 65           | 477         | 710     | 60.5         | 23            |
| FR633240052 | A83 1ES 380V-B14                            | 580         | 750        | 50                   | 1390                          | 65           | 477         | 710     | 60.5         | 23            |

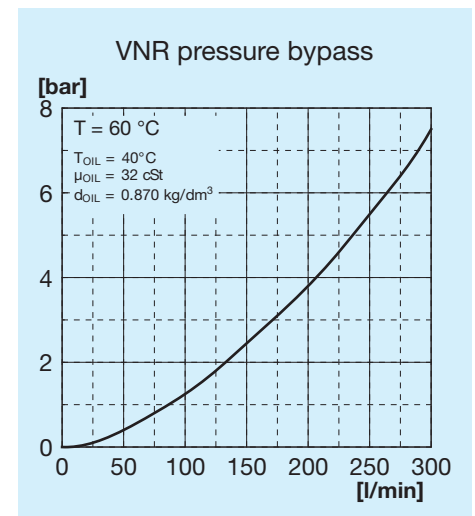
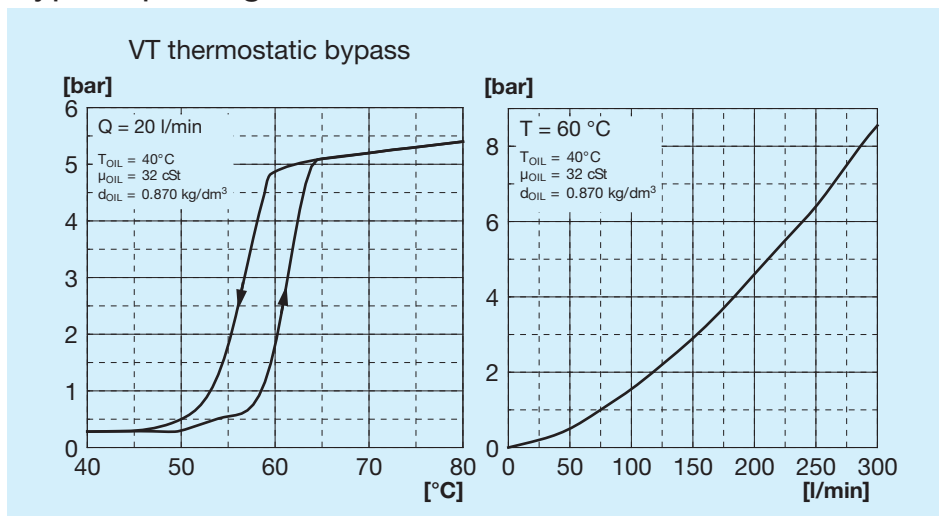
## Heat exchange (thermal) capacity



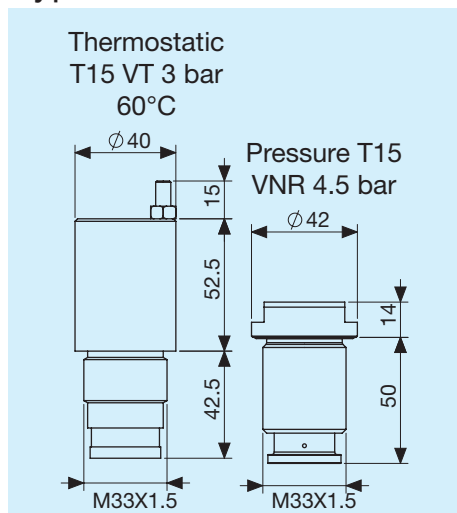
## Radiator passage pressure drop



## Bypass passage load loss

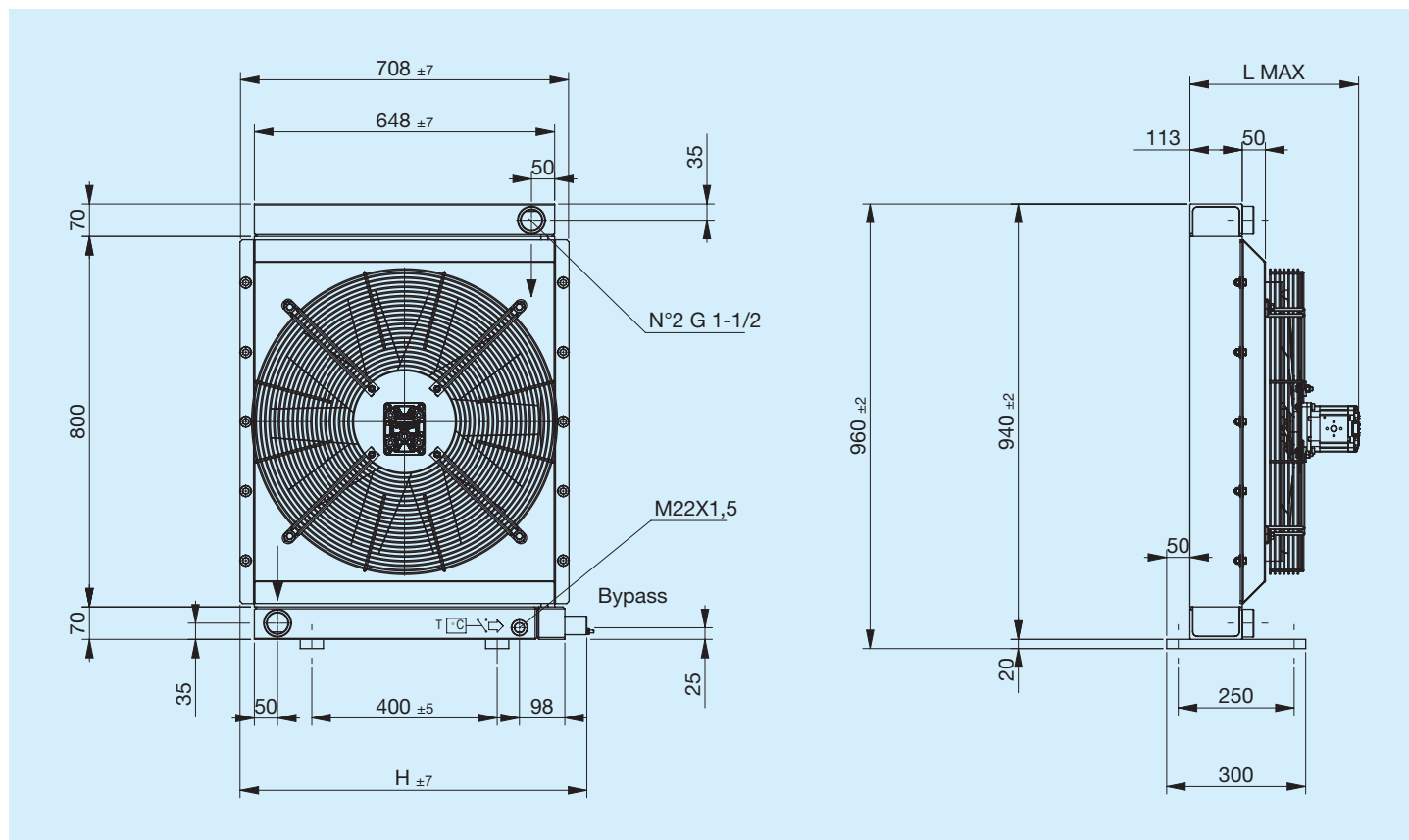


## Bypass valves



## Legend

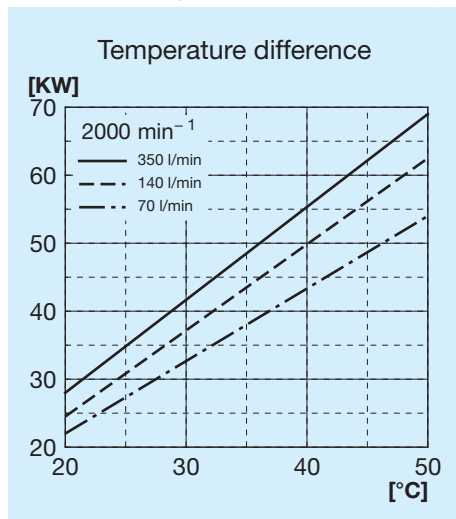
|         |                                          |
|---------|------------------------------------------|
| A56     | Exchanger type                           |
| 1E      | 1 Fan unit                               |
| AP      | High power aspirating                    |
| SP      | High power blower                        |
| AX      | Extra high power aspirating              |
| SX      | Extra high power blower                  |
| 12V     | Fan unit voltage                         |
| 24V     | Fan unit voltage                         |
| T15 VT  | Thermostatic bypass valve 3 bar 60u00b0C |
| T15 VNR | Pressure bypass valve at 4.5 bar         |



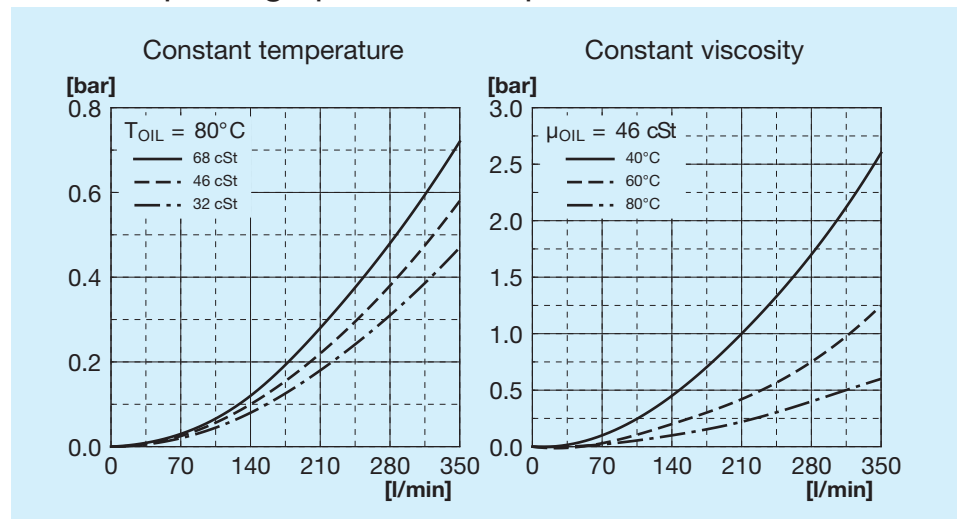
| Code | Description                                     | Ø Fan<br>mm | Displacement<br>motors<br>cm <sup>3</sup> /h | L Max<br>mm | H<br>mm | Weight<br>Kg | Capacity<br>l |
|------|-------------------------------------------------|-------------|----------------------------------------------|-------------|---------|--------------|---------------|
| 935  | A83 IA SETT.GR2 bypass T15 V.T. 6 bar 50°C      | 580         | —                                            | 300         | 749     | 53           | 23            |
| 936  | A83 IS SETT.GR2 bypass T15 V.T. 6 bar 50°C      | 580         | —                                            | 300         | 749     | 53           | 23            |
| 937  | A83 IA SETT.GR2 bypass T15 VNR 4.5 bar          | 580         | —                                            | 300         | 711     | 53           | 23            |
| 938  | A83 IS SETT.GR2 bypass T15 VNR 4.5 bar          | 580         | —                                            | 300         | 711     | 53           | 23            |
| 939  | A83 IA HYDR.MOT. GR2 bypass T15 V.T. 6 bar 50°C | 580         | 11                                           | 360         | 749     | 54           | 23            |
| 940  | A83 IS HYDR.MOT. GR2 bypass T15 V.T. 6 bar 50°C | 580         | 11                                           | 360         | 749     | 54           | 23            |
| 941  | A83 IA HYDR.MOT. GR2 bypass T15 VNR 4.5 bar     | 580         | 11                                           | 360         | 711     | 54           | 23            |
| 942  | A83 IS HYDR.MOT. GR2 bypass T15 VNR 4.5 bar     | 580         | 11                                           | 360         | 711     | 54           | 23            |
| 943  | A83 IA SETT.GR2                                 | 580         | —                                            | 300         | 710     | 53           | 23            |
| 944  | A83 IS SETT.GR2                                 | 580         | —                                            | 300         | 710     | 53           | 23            |
| 945  | A83 IA HYDR.MOT. GR2                            | 580         | 11                                           | 360         | 710     | 54           | 23            |
| 946  | A83 IS HYDR.MOT. GR2                            | 580         | 11                                           | 360         | 710     | 54           | 23            |



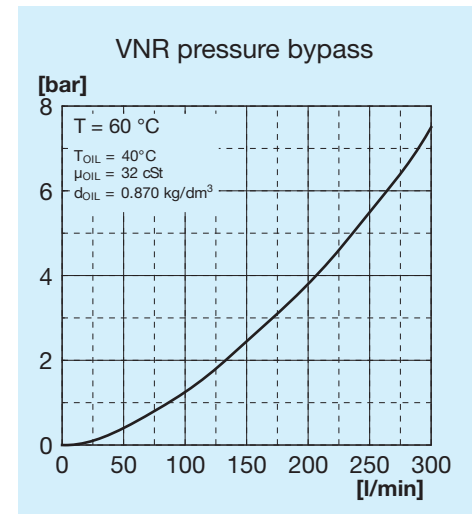
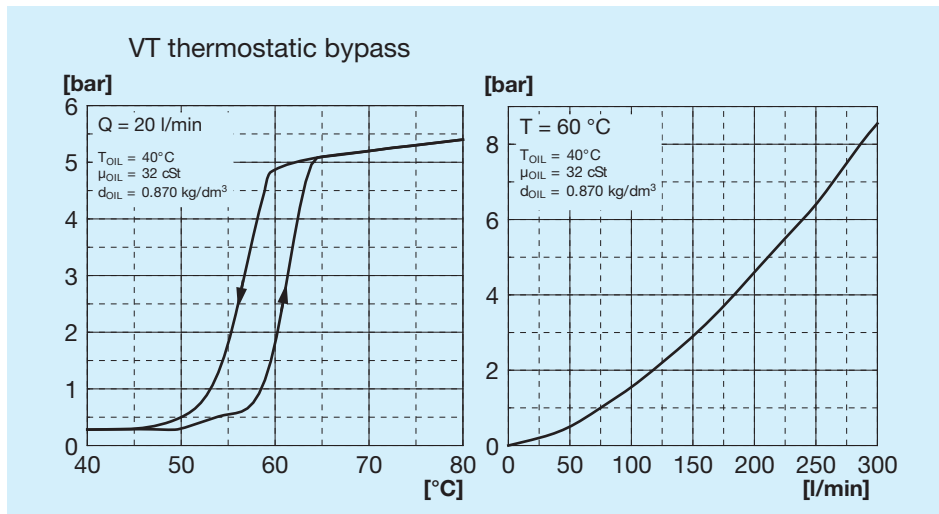
## Heat exchange (thermal) capacity



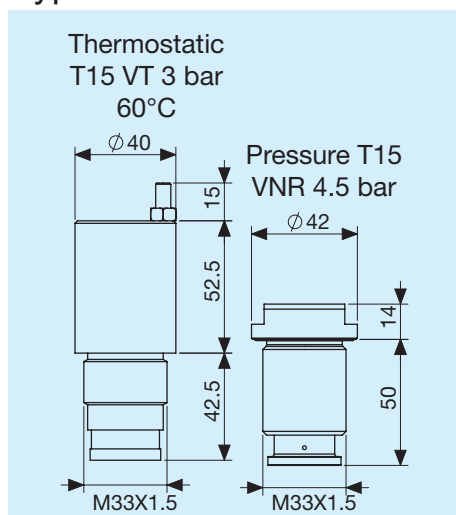
## Radiator passage pressure drop



## Bypass passage load loss



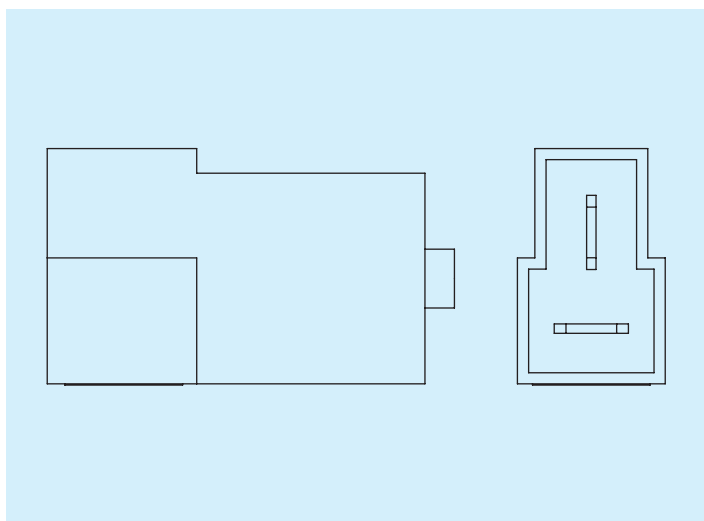
## Bypass valves



## Legend

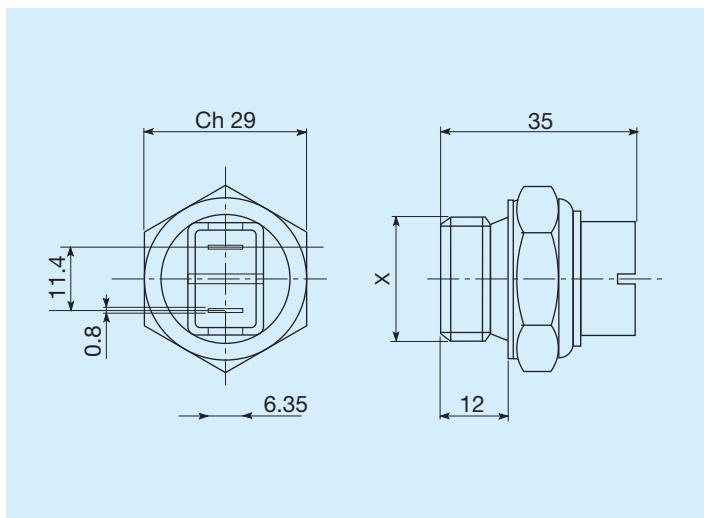
|         |                                          |
|---------|------------------------------------------|
| A56     | Exchanger type                           |
| 1E      | 1 Fan unit                               |
| AP      | High power aspirating                    |
| SP      | High power blower                        |
| AX      | Extra high power aspirating              |
| SX      | Extra high power blower                  |
| 12V     | Fan unit voltage                         |
| 24V     | Fan unit voltage                         |
| T15 VT  | Thermostatic bypass valve 3 bar 60u00b0C |
| T15 VNR | Pressure bypass valve at 4.5 bar         |

### Connector



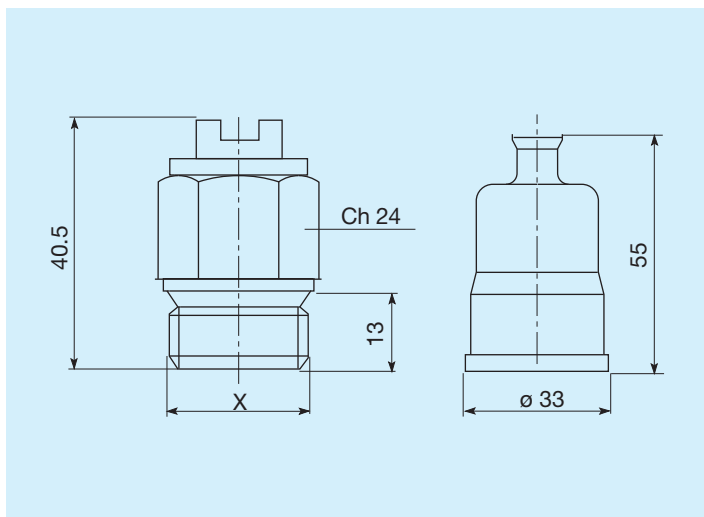
|               | Code   |
|---------------|--------|
| AMP connector | 180908 |

### Thermostats



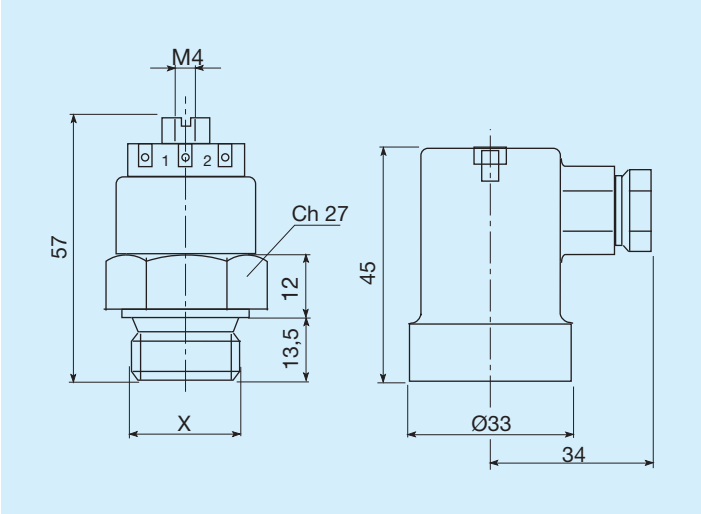
| Trigger temperature<br>°C |         | Code         |
|---------------------------|---------|--------------|
| 45 - 35                   | M22x1.5 | FR 361104535 |
| 60 - 50                   | M22x1.5 | FR 361106050 |
| 80 - 70                   | M22x1.5 | FR 361108070 |
| 82 - 68                   | M22x1.5 | FR 361108268 |
| 85 - 76                   | M22x1.5 | FR 361108576 |

### IP54 protected thermal switch



| Trigger temperature<br>°C |         | Code         |
|---------------------------|---------|--------------|
| 45 - 35                   | M22x1.5 | FR 361124535 |
| 50 - 40                   | M22x1.5 | FR 361125040 |
| 60 - 50                   | M22x1.5 | FR 361126050 |
| 70 - 60                   | M22x1.5 | FR 361127060 |
| 80 - 70                   | M22x1.5 | FR 361128070 |

IP65 protected thermal switch



| Trigger temperature<br>°C |         | Code         |
|---------------------------|---------|--------------|
| 45 - 35                   | M22x1.5 | FR 361154535 |
| 47 - 36                   | M22x1.5 | FR 361155040 |
| 60 - 50                   | M22x1.5 | FR 361156050 |
| 80 - 70                   | M22x1.5 | FR 361158070 |