

File E28470
Project 09CA29987

May 4, 2010

REPORT
on
AUXILLIARY DEVICES

Gunther Spelsberg GmbH & Co. KG
Schalksmuhle, Germany

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DESCRIPTION

PRODUCT COVERED:

USL, CNL - Auxiliary Devices, Enclosure Series, Model TG PC followed by 88, 1208, 1212 or 1608 followed by 6 or 9, followed by -o and may be followed by -SV.

GENERAL:

These enclosures are intended for indoor or outdoor use constructed in accordance with the Standard for Industrial Control Equipment, UL 508 17th edition and CSA C22.2 No. 14-05, and with the applicable description pertaining to the Type 4X construction which is described in this Report. Bases and covers are light gray in color, cover may be clear. The cover is fixed with four or six screws **or quick-release fasters.**

RATINGS:

Environmental Rating:

Enclosures without quick-release faster **(/S)**: Type 4X and Type
12

Enclosures with quick-release faster (-SV): Type 12

NOMENCLATURE:

Example Type TG catalog number

| | | | | | | | |
|---|----|----|------|----|----------|-----------|------------|
| * | TG | PC | 1608 | -9 | t | -o | -S |
| | I | II | III | IV | V | VI | VII |

I Enclosure TG Series

II Polycarbonate Enclosure

III Suffix Number - Dimensions (length and width), see table 1

IV Suffix Number - Dimensions (high), see table 1

V **Cover material**

t - transparent

No suffix - gray colored

VI Sidewalls

o - smooth side walls

VII Cover fixing

/S -Screw

No suffix -Quick-release fastener

*

Table 1 - Polycarbonate Enclosure Dimensions

| Type of Enclosure | Dimensions in (mm) | | | Illustration |
|-------------------|--------------------|-------|--------|--------------|
| | Length | Width | Height | Reference |
| TG PC 88-6 | 84 | 82 | 55 | 1 |
| TG PC 88-9 | 84 | 82 | 85 | 2 |
| TG PC 1208-6 | 122 | 82 | 55 | 3 |
| TG PC 1208-9 | 122 | 82 | 85 | 4 |
| TG PC 1212-6 | 124 | 122 | 55 | 5 |
| TG PC 1212-9 | 124 | 122 | 85 | 6 |
| TG PC 1608-6 | 162 | 82 | 55 | 7 |
| TG PC 1608-9 | 162 | 82 | 85 | 8 |

CONSTRUCTION DETAILS:

General - The details of construction are covered in the following photographs and accompanying descriptive pages and illustrations.

Tolerances - All indicated dimensions are nominal, unless specified otherwise.

Markings - The following markings shall be provided:

1. Listee's name, type designation, type rating marked on product.
2. The enclosure shall include a marking that indicates mounting means are only those fastening holes located under the retention screws for the cover. These holes are external to the equipment cavity.
3. Enclosures shall include a marking that states the conduit hubs are to be connected to the conduit before being connected to the enclosure.
4. Enclosures shall include a marking that states the maximum conduit trade size to be connected is trade size 1.
5. Marking of the bonding means shall:
 - a. Be located where visible during installation, such as inside the cover, and
 - b. The word "CAUTION" in letters not less than 1/8 inch (3.2) high and the following or equivalent in letters not less than 1/16 inch (1.6) high: "Non metallic enclosures do not provide grounding means between conduit connections. Use of grounding hubs and jumper wires are required. Refer to packaging sheet for instructions, type and sizes".
6. The Marking shall provided by die stamping, ink stamping (permanent type ink) or Recognized (PGDQ2) marking labels intended for Indoor and Outdoor use.

CAT.NO. TG PC 1608-9

FIG. 1
FIG. 2
FIG. 3
ILL. 1
ILL. 2
ILL. 3
ILL. 4
ILL. 5
ILL. 6
ILL. 7
ILL. 8

General - Figure 1 shows a view of the complete enclosure of cat.no. TG PC 1608-9. All catalog numbers are identical to that shown except for the number of cover screws, and dimensions. See Table 1 and Ills. 1 through 8 for additional details.

Enclosure Base

1. Base - R/C (**QMFZ2/8**), designated XANTAR 22UR(f1), manufactured by DSM ENGINEERING PLASTICS INC, rated V-2, 125 °C, min. 2 mm **thick, gray**. For details see Ill. 1 to 8. (E43392)
2. Mounting Holes (four provided) - Size 4.2 mm dia., external to enclosure cavity and gasket. Cover screws must be removed to access mounting holes.

Enclosure Cover

3. Cover - R/C (**QMFZ2/8**), designated XANTAR 22UR(f1), manufactured by DSM ENGINEERING PLASTICS INC, rated V-2, 125 °C, min. 2 mm **thick, gray or clear**. For details see Ill. 1 to 8. (E43392)
4. Channel -2.2 mm wide, 3.5 mm deep, extends around the perimeter of the Cover to the Base (item 1).
5. Cover Screws /Lock (four or) - Stainless steel screws, AISI 304, 32 mm long, diameter 3 mm. Screw inserted into cover and held in place by stainless steel spring, AISI 304, 24 mm long. For details see Fig. 2 and 3.
6. Gasket Material (to Base and Door) - R/C (JMST2) Sonderhoff Chemicals GmbH type Fermapor K31-A 9808 and Fermapor K31-B-RF. Gasket is in liquid form and poured into channel (Item 4) with a mixture ratio of 4 to 1.

File E254144
Project 09CA29998

April 30, 2010

REPORT

on

BOXES, JUNCTION AND PULL

Gunther Spelsberg GmbH & Co. KG
Schalksmuhle, Germany

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DESCRIPTION

PRODUCT COVERED:

USL, CNL - Boxes, Junction and Pull, Enclosure Series, Model TG PC followed by 1612, 2012, 2015, 2516 or 3023, followed by 8, 9, 11 or 12, followed by -o and may be followed by -SV.

GENERAL:

These enclosures are intended for indoor or outdoor use constructed in accordance with the Standard for Enclosures for Boxes, Junction and Pull, UL50, CSA C22.2 No. 94.1-07 and UL50E, CSA C22.2 No. 94.2-07, and with the applicable description pertaining to the Type 4X construction which is described in this Report. Bases and covers are light gray in color, cover may be transparent. The cover is fixed with four or six screws **or quick-release fasteners**.

RATINGS:

Environmental Rating:

Enclosures without quick-release faster **(/S)** Type 4X, Type 12

Enclosures with quick-release faster (-SV) Type 12

NOMENCLATURE:

Example Type TG catalog number

| | | | | | | | |
|---|----|----|------|----|-----------|-----------|------------|
| * | TG | PC | 1612 | -9 | -t | -o | -S |
| | I | II | III | IV | V | VI | VII |

I Enclosure TG Series

II Polycarbonate Enclosure

III Suffix Number - Dimensions (length and width), see table 1

IV Suffix Number - Dimensions (high), see table 1

V **Cover material**

t - transparent

No suffix - gray colored

| | | |
|---|----|------------------|
| * | VI | Sidewalls |
|---|----|------------------|

o - smooth side walls

VII **Cover fixing**

/S -Screw

No suffix -Quick-release fastener

Table 1 - Polycarbonate Enclosure Dimensions

| <u>Type of Enclosure</u> | <u>Dimensions in (mm)</u> | | | <u>Illustration</u> |
|--------------------------|---------------------------|--------------|---------------|---------------------|
| | <u>Length</u> | <u>Width</u> | <u>Height</u> | <u>Reference</u> |
| *TG PC 1612-9 | 162 | 122 | 90 | 1 |
| *TG PC 2012-8 | 202 | 122 | 75 | 2 |
| *TG PC 2012-9 | 202 | 122 | 90 | 3 |
| *TG PC 2015-8 | 202 | 152 | 75 | 4 |
| *TG PC 2516-9 | 252 | 162 | 90 | 5 |
| *TG PC 2516-12 | 252 | 162 | 120 | 6 |
| *TG PC 3023-9 | 302 | 232 | 90 | 7 |
| *TG PC 3023-11 | 302 | 232 | 110 | 8 |

CONSTRUCTION DETAILS:

General - The details of construction are covered in the following photographs and accompanying descriptive pages and illustrations.

Tolerances - All indicated dimensions are nominal, unless specified otherwise.

Markings - The following markings shall be provided:

1. Listee's name, type designation, type rating marked on product.
2. The enclosure shall include a marking that indicates mounting means are only those fastening holes located under the retention screws for the cover. These holes are external to the equipment cavity.
3. Enclosures shall include a marking that states the conduit hubs are to be connected to the conduit before being connected to the enclosure.
4. Enclosures shall include a marking that states the maximum conduit trade size to be connected is trade size 1.
5. Marking of the bonding means shall:
 - a. Be located where visible during installation, such as inside the cover, and
 - b. The word "CAUTION" in letters not less than 1/8 inch (3.2) high and the following or equivalent in letters not less than 1/16 inch (1.6) high: "Non metallic enclosures do not provide grounding means between conduit connections. Use of grounding hubs and jumper wires are required. Refer to packaging sheet for instructions, type and sizes".
6. The Marking shall provided by die stamping, ink stamping (permanent type ink) or Recognized (PGDQ2) marking labels intended for Indoor and Outdoor use.

CAT.NO. TG PC 1612-9-O-SV

FIG. 1
FIG. 2
FIG. 3
FIG. 4
ILL. 1
ILL. 2
ILL. 3
ILL. 4
ILL. 5
ILL. 6
ILL. 7
ILL. 8

General - Figure 1 shows a view of the complete enclosure of Model No. TG PC 1612-9. All catalog numbers are similar to that shown except for the number of cover screws, and dimensions. See Table 1 and Ills. 1 through 8 for additional details.

Enclosure Base

1. Base - R/C (QMFZ2/8), designated XANTAR 22UR(f1) by DSM ENGINEERING PLASTICS INC, rated V-2, 125 °C, min. 2 mm thick, **gray**. For details see Ill. 1 to 8. (E43392)
2. Mounting Holes (four provided) - Size 4.2 mm dia., external to enclosure cavity and gasket. Cover screws must be removed to access mounting holes.

Enclosure Cover

3. Cover - R/C (QMFZ2), designated XANTAR 22UR(f1) by DSM ENGINEERING PLASTICS INC, rated V-2, 125 °C, min. 2 mm thick, **gray or clear**. For details see Ill. 1 to 8. (E43392)
4. Channel -2.2 mm wide, 3.5 mm deep, extends around the perimeter of the Cover to the Base (item 1).
5. Quick-release fastener Cover - provided only on enclosures with suffix "-SV" - Stainless steel screws, AISI 304, 32 mm long, diameter 3 mm. Screw inserted into cover and held in place by stainless steel spring, AISI 304, 24 mm long. For details see Fig. 2 and 3. Four or six provided.

Alternate Screws /Lock - Provided only on enclosures without "-SV" suffix - Stainless steel screws, AISI 304, 44 mm long, diameter 3 mm. Threaded section is 10 mm long. For details see Fig. 4. Four or six provided.

6. Gasket Material (to Base and Door) - R/C (JMST2) Sonderhoff Chemicals GmbH type Fermapor K31-A 9808 and Fermapor K31-B-RF. Gasket is in liquid form and poured into channel (Item 4) with a mixture ratio of 4 to 1.