

PolyGard® DGC-05 - LON Coupler

DESCRIPTION

Coupler for the connection of the DGC- 05 system to a LNS LON network via LON interoperable nodes.

APPLICATION

The RS485 LON coupler is employed for the transmission of the data to an open building visualization or facility system using LNS 2 or LNS 3 standard database systems (LONMaker, Neuron NL220, etc.).



FEATURES

- LON interoperable
- 56 SNVT for measuring points
- 6 SNVT for 6 relay groups with 5 relays each
- 12 SNVT for 12 analog outputs



SPECIFICATIONS

Electrical

Power supply	20- 28 VDC (reverse polarity protected)
Power consumption	80 mA
LON® interface	Standard network variables, SNVT according to LON Mark® Application Layer Interoperability Guideline version 3.1

Environmental

Humidity	15 - 85% RH non condensing
Working temperature	-5 °C to + 40 °C (23 °F to 104 °F)
Storage temperature	-20 °C to + 40 °C (-4 °F to 104 °F)

Physical

Enclosure	Plastic housing
Mounting	Snap fit for TS 35
Dimensions (W x H x D)	104 x 86 x 56 mm (4.1 x 3.4 x 2.2 in.)
Protection	IP 40
Weight	Weight 0,3 kg (0.66 lbs.)
Guidelines	EMC Directive 89/336/EEC Low voltage directive 73/23/EEC

Warranty

One year / material

ORDERING INFORMATION

DGC-05-RS-485-LON DA

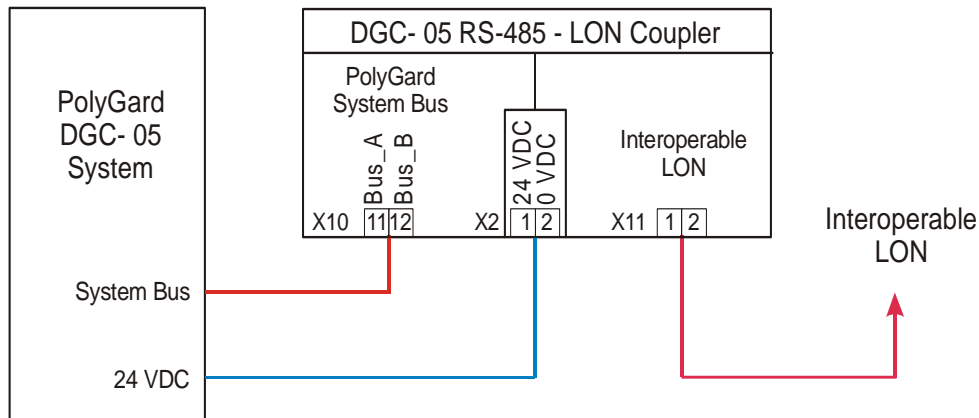
Versions

- DA 56 SNVT Meas. values on-board sensors (add. MP01–MP56)
4 SNVT relay groups, 2 SNVT analog outputs
- DB 42 SNVT Meas. values on-board sensors (add. MP57–MP98)
6 SNVT relay groups, 12 SNVT analog outputs
- NLA 28 SNVT Meas. values on-board sensors (add. MP01.1–MP28.1)
- CCA 28 SNVT Meas. values external sensors (add. MP01.2–MP28.2)
4 SNVT relay groups, 2 SNVT analog outputs
- NLB 20 SNVT Meas. values on-board sensors (add. MP29.1–MP48.1)
- CCB 20 SNVT Meas. values external sensors (add. MP29.2–MP48.2)
6 SNVT relay groups, 12 SNVT analog outputs

Example: RS 485-LON Coupler for 45 on-board sensors and 45 external Ex transmitters

Order No.: DGC-05-RS-485-LON NLA + DGC-05-RS-485-LON NLB

WIRING CONFIGURATION



LONMARK PRODUCT DETAILS

Product Datasheet (PDF)	PolyGard DGC-05- RS 485-LON Coupler
Device category	Gas concentration
Communication	TP/FT-10
LonMark version	3.2
LonMark object	0000 - Node Object 0001 – Open Loop Sensor Object to 00054 – Open Loop Sensor Object
Standard program ID	49:4F:50:2D:44:00:00:00

STANDARD NETWORK AND CONFIGURATION VARIABLES

Node Object

	nvi00Request	obj_Request
	nvo00Status	obj_Status
	nvoAlarm	Alarm
	nci_minSend	SNVT_Time_sec

If one unit is missing, the values will be set to the maximum presentable values:

nvo01:TOX 65535

nvo_Alarm 255 means: All bits are ON.

Changes of parameters are not admitted for safety reasons, therefore the data direction is clearly defined from the warning system to the open LON side! Retroaction is not possible.

MEASURED VALUES INDICATION

-Type DA

Sensor MP01	nvo01_TOX[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP02	nvo01_TOX[1]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP56	nvo01_TOX[55]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

Relay group 01	nvo_Alarm[0]	SNVT_count bit0=Rel1bit4=Rel5
Relay group 02	nvo_Alarm[1]	SNVT_count bit0=Rel6bit4=Rel10
Relay group 03	nvo_Alarm[2]	SNVT_count bit0=Rel11bit4=Rel15
Relay group 04	nvo_Alarm[3]	SNVT_count bit0=Rel16bit4=Rel20

Relay group 01	nvo_an_out[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Relay group 02	nvo_an_out[1]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

-Type DB

Sensor MP57	nvo01_TOX[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP58	nvo01_TOX[1]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP98	nvo01_TOX[41]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

Relay group 01	nvo_Alarm[0]	SNVT_count bit0=Rel1bit4=Rel5
Relay group 02	nvo_Alarm[1]	SNVT_count bit0=Rel6bit4=Rel10
Relay group 03	nvo_Alarm[2]	SNVT_count bit0=Rel11bit4=Rel20
Relay group 06	nvo_Alarm[5]	SNVT_count bit0=Rel26bit4=Rel30

Analog output 01	nvo_an_out[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Analog output 12	nvo_an_out[11]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

-Type NLA

Sensor MP01.1	nvo01_TOX[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP01.2	nvo02_COMB[0]	SNVT_lev_percent (0-100 %, 0,05 % step)
Sensor MP28.1	nvo01_TOX[27]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP28.2	nvo02_COMB[27]	SNVT_lev_percent (0-100 %, 0,05 % step)

Relay group 01	nvo_Alarm[0]	SNVT_count bit0=Rel1bit4=Rel5
Relay group 02	nvo_Alarm[1]	SNVT_count bit0=Rel6bit4=Rel10
Relay group 03	nvo_Alarm[2]	SNVT_count bit0=Rel11bit4=Rel15
Relay group 04	nvo_Alarm[3]	SNVT_count bit0=Rel16bit4=Rel20

Analog output 01	nvo_an_out[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Analog output 02	nvo_an_out[1]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

-Type NLB

Sensor MP29.1	nvo01_TOX[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP29.2	nvo02_COMB[0]	SNVT_lev_percent (0-100 %, 0,05 % step)
Sensor MP48.1	nvo01_TOX[27]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP48.2	nvo02_COMB[27]	SNVT_lev_percent (0-100 %, 0,05 % step)

Relay group 01	nvo_Alarm[0]	SNVT_count bit0=Rel1bit4=Rel5
Relay group 02	nvo_Alarm[1]	SNVT_count bit0=Rel6bit4=Rel10
Relay group 03	nvo_Alarm[2]	SNVT_count bit0=Rel11bit4=Rel16
Relay group 06	nvo_Alarm[5]	SNVT_count bit0=Rel26bit4=Rel30

Analog output 01	nvo_an_out[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Analog output 12	nvo_an_out[11]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

-Type CCA

Sensor MP01.1	nvo01_TOX[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP01.2	nvo02_TOX[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP28.1	nvo01_TOX[27]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP28.2	nvo02_TOX[27]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

Relay group 01	nvo_Alarm[0]	SNVT_count bit0=Rel1bit4=Rel5
Relay group 02	nvo_Alarm[1]	SNVT_count bit0=Rel6bit4=Rel10
Relay group 03	nvo_Alarm[2]	SNVT_count bit0=Rel11bit4=Rel15
Relay group 04	nvo_Alarm[3]	SNVT_count bit0=Rel16bit4=Rel20

Analog output 01	nvo_an_out[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Analog output 02	nvo_an_out[1]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

-Type CCB

Sensor MP29.1	nvo01_TOX[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP29.2	nvo02_TOX[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP48.1	nvo01_TOX[27]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Sensor MP48.2	nvo02_TOX[27]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)

Relay group 01	nvo_Alarm[0]	SNVT_count bit0=Rel1bit4=Rel5
Relay group 02	nvo_Alarm[1]	SNVT_count bit0=Rel6bit4=Rel10
Relay group 03	nvo_Alarm[2]	SNVT_count bit0=Rel11bit4=Rel16
Relay group 06	nvo_Alarm[5]	SNVT_count bit0=Rel26bit4=Rel30

Analog output 01	nvo_an_out[0]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)
Analog output 12	nvo_an_out[11]	SNVT_ppm Concentration (0-300 ppm, 1ppm step)