DS2

DATALOGIC



AREASCAN™ DETECTION AND MEASUREMENT LIGHT GRIDS WITH SERIAL OR ETHERNET INTERFACE

- 6 or 25 mm resolution
- Relative measurement precision ± 6 mm or ± 22.5 mm
- 150 - 1650 mm controlled heights
- Operating distance up to 10 m
- PNP and 0-10 V Analog output and RS485 or Ethernet interface

APPLICATIONS

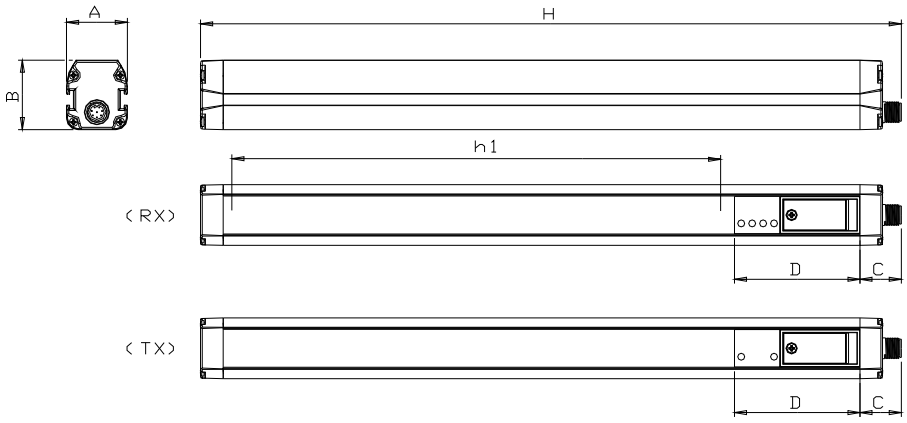
- Processing and Packaging machinery
- Food, Cosmetic, Pharmaceutical
- Electronics and mechanical assembling
- Conveyor lines and sorting systems

		DS2
Light array (controlled height)		150...1650 mm
Resolution		6 or 25 mm
Number of beams		21...231 (res= 6mm)
		6...66 (res= 25mm)
Light emission		IR LED
Response time		5...90 ms
Interface		serial RS485 or Ethernet
Setting		Dip-switches
		Graphic interface
Operating distance		0,3...5 m (res= 6mm)
		0,3...10 m (res=25mm)
Power supply	Vdc	24V +/- 20%
	Vac	
	Vac/dc	
Output	PNP	•
	NPN	
	NPN/PNP	
	relay	
	other	0...10 V Analog output
Connection	cable	
	connector	•
	pig-tail	
Approximate dimensions (mm)		35x40x(256...1726)
Housing material		aluminium
Mechanical protection		IP65

TECHNICAL DATA

Power supply	24 Vdc ± 20%
Consumption on emitter unit (TX)	250 mA max. load excluded
Light emission	IR LED 880 nm
Output	PNP; analog output
Output current	100 mA
Saturation voltage	1,5 V max.
Connection	M12 4-pole connector (TX), M12 8-pole and M12 4-pole type “D” connector (RX)
Dielectric strength	500 Vac, 1 min between electronics and housing
Insulating resistance	>20 MΩ, 500 Vdc between electronics and housing
Electrical protection	class I
Mechanical protection	IP65 (EN 60529)
Vibrations	0,5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)
Shock resistance	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
Housing material	painted aluminium (Pulverit 5121/0085 Black)
Lens material	PMMA
Operating temperature	0 ... 50 °C
Storage temperature	-25...70°C
Weight	1,9 - 4,6 kg

DIMENSIONS



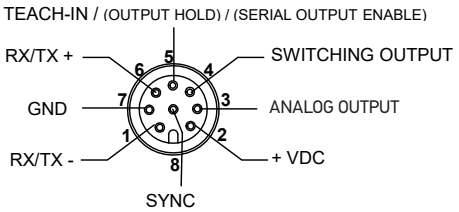
MODEL	A x B (mm)	H (mm)	C (mm)	D (mm)
DS2-05-07-015-XX	35 x 40	256	23.8	72.5
DS2-05-07-030-XX	35 x 40	403	23.8	72.5
DS2-05-07-045-XX	35 x 40	550	23.8	72.5
DS2-05-07-060-XX	35 x 40	697	23.8	72.5
DS2-05-07-075-XX	35 x 40	844	23.8	72.5
DS2-05-07-090-XX	35 x 40	991	23.8	72.5
DS2-05-07-105-XX	35 x 40	1138	23.8	72.5
DS2-05-07-120-XX	35 x 40	1285	23.8	72.5
DS2-05-07-135-XX	35 x 40	1432	23.8	72.5
DS2-05-07-150-XX	35 x 40	1579	23.8	72.5
DS2-05-07-165-XX	35 x 40	1726	23.8	72.5
DS2-05-25-045-XX	35 x 40	562	23.8	72.5
DS2-05-25-060-XX	35 x 40	713	23.8	72.5
DS2-05-25-075-XX	35 x 40	864	23.8	72.5
DS2-05-25-090-XX	35 x 40	1015	23.8	72.5

XX: JV for serial models or JE for ETHERNET models

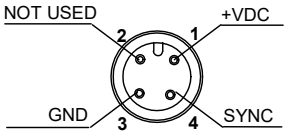
CONNECTIONS

M12 CONNECTOR - SERIAL VERSION

Receiver (RX)

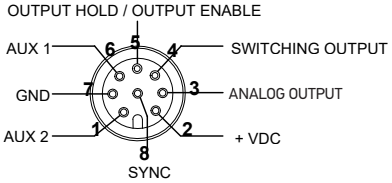


Emitter (TX)

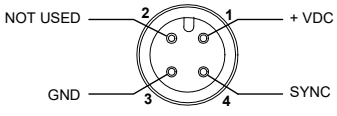


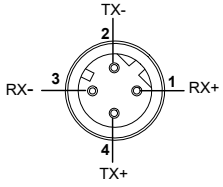
M12 CONNECTOR - ETHERNET VERSION

Receiver (RX)



Emitter (TX)





INDICATORS AND SETTINGS

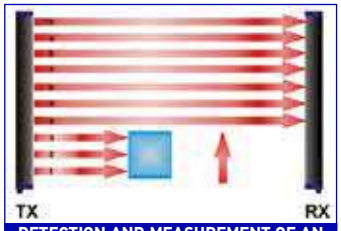




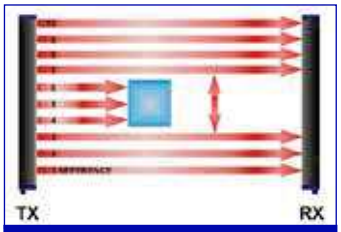




DETECTION MODE EXAMPLES



DETECTION AND MEASUREMENT OF AN OBJECT'S HEIGHT OR PROFILE



DETECTION MODE (TEACH-IN)

And more applications:
- Object height measurement (vertical mounting);
- Object width measurement (horizontal mounting);
- Object distance measurement (horizontal mounting);
- Object volume measurement (vertical and horizontal combination);
- Single or multiple object presence and/or position detection in a given area;
- Missing label detection on multiple lanes;
- Vertical warehouse drawers positioning;
- Box or other objects profiling on conveyors;
- Web edges or center guiding;
- Cartoners, stackers and palletizers.

RESPONSE TIME - SERIAL AND ETHERNET VERSION

	Tmin (msec)							Tmax (msec)
		T2	T3	T4	T5	T6	T7	
MODEL RS485	**CONFIGURATION**							
	Top beam				**Complete beams status**			
	Binary	**Binary**	**ASCII**	**ASCII**	**Binary**	**Binary**	**ASCII**	**ASCII**
	57600 baud	9600 baud	57600 baud	9600 baud	57600 baud	9600 baud	57600 baud	9600 baud
DS2-05-07-015-JV	5.5	12.5	5.05	13	5.5	15	6.5	10
DS2-05-07-030-JV	7	14	7	14.5	7	18	8.5	21
DS2-05-07-045-JV	8.5	15.5	8.5	16	8.5	21	10	24
DS2-05-07-060-JV	10	17	10	18	10	26	12	38
DS2-05-07-075-JV	11.5	18.5	11.5	19	11.5	31	15	44
DS2-05-07-090-JV	13	20	13	20	13	36	17	54
DS2-05-07-105-JV	14.5	21.5	14.5	22	14.5	40	19	62
DS2-05-07-120-JV	17	24	17	24	17	44	21	70
DS2-05-07-135-JV	18.5	25	19	26	19	48	23	80
DS2-05-07-150-JV	20	26.5	21	28	21	53	25	84
DS2-05-07-165-JV	22	28	23	30	23	56	28	91
DS2-05-25-045-JV	5	11	5	11	5	13	6	18
DS2-05-25-060-JV	5.5	12	5.5	12.5	5.5	14.5	6.5	19.5
DS2-05-25-075-JV	6	13	6	13.5	6	16	7	21
DS2-05-25-090-JV	6.5	13.5	6.5	14.5	6.5	17.5	7.5	22.5

MODEL ETHERNET	**CONFIGURATION**			
	Top beam		**Complete beams status**	
	Binary	**ASCII**	**Binary**	**ASCII**
DS2-05-07-060-JE	10	10	10	12
DS2-05-07-075-JE	11.5	11.5	11.5	15
DS2-05-07-090-JE	13	13	13	17
DS2-05-07-120-JE	17	17	17	21
DS2-05-07-150-JE	20	21	21	25
DS2-05-07-165-JE	22	23	23	28

MODEL SELECTION AND ORDER INFORMATION

OPTIC FUNCTION	CONTROLLED AREA (mm)	OPTICS INTERAXIS (mm)	OUTPUT	MODEL	ORDER No.
Measurement light curtain	147	6.75	PNP, 0-10V and RS485	DS2-05-07-015-JV	957501040
	294			DS2-05-07-030-JV	957501050
	441			DS2-05-07-045-JV	957501060
	588			DS2-05-07-060-JV	957501000
	735			DS2-05-07-075-JV	957501070
	882			DS2-05-07-090-JV	957501010
	1029			DS2-05-07-105-JV	957501080
	1176			DS2-05-07-120-JV	957501020
	1323			DS2-05-07-135-JV	957501090
	1470			DS2-05-07-150-JV	957501100
	1617			DS2-05-07-165-JV	957501030
	453	25		DS2-05-25-045-JV	957501110
	604			DS2-05-25-060-JV	957501140
	755			DS2-05-25-075-JV	957501120
	912			DS2-05-25-090-JV	957501130
	588	6.75	Voltage Analog and Ethernet	DS2-05-07-060-JE	957501150
	735			DS2-05-07-075-JE	957501160
	882			DS2-05-07-090-JE	957501170
	1176			DS2-05-07-120-JE	957501180
	1470			DS2-05-07-150-JE	957501190
	1617			DS2-05-07-165-JE	957501200

CABLES

TYPE	DESCRIPTION	LENGTH	MODEL	ORDER No.
Axial M12 Connector	4-pole, grey, P.V.C.	3 m	CS-A1-02-G-03	95A251380
		5 m	CS-A1-02-G-05	95A251270
		10 m	CS-A1-02-G-10	95A251390
	4-pole, P.U.R.	2 m	CS-A1-02-R-02	95A251540
		5 m	CS-A1-02-R-05	95A251560
	8-pole, black, P.V.C.	3 m	CS-A1-06-B-03	95ACC2230
		5 m	CS-A1-06-B-05	95ACC2240
		10 m	CS-A1-06-B-10	95ACC2250
	4-pole, shielded, grey, P.V.C.	3 m	CV-A1-22-B-03	95ACC1480
		5 m	CV-A1-22-B-05	95ACC1490
		10 m	CV-A1-22-B-10	95ACC1500
	8-pole, shielded, black, P.V.C.	3 m	CV-A1-26-B-03	95ACC1510
		5 m	CV-A1-26-B-05	95ACC1520
		10 m	CV-A1-26-B-10	95ACC1530
		15 m	CV-A1-26-B-15	95ACC2080
		25 m	CV-A1-26-B-25	95ACC2100
	4-pole, U.L., black, P.V.C.	3 m	CS-A1-02-U-03	95ASE1120
		5 m	CS-A1-02-U-05	95ASE1130
		10 m	CS-A1-02-U-10	95ASE1140
		15 m	CS-A1-02-U-15	95ASE1150
		25 m	CS-A1-02-U-25	95ASE1160
	8-pole, U.L., black, P.V.C.	3 m	CS-A1-06-U-03	95ASE1220
		5 m	CS-A1-06-U-05	95ASE1230
		10 m	CS-A1-06-U-10	95ASE1240
		15 m	CS-A1-06-U-15	95ASE1250
		25 m	CS-A1-06-U-25	95ASE1260
		50 m	CS-A1-06-U-50	95A252710
	4-pole, black	Connector-not cabled	CS-A1-02-B-NC	G5085002
	8-pole, black	Connector-not cabled	CS-A1-06-B-NC	95ACC2550
Ethernet cable M12/RJ45	4-pole	3m straight D coded	DATAVS-CV-RJ45D-03	95A901350