

DM931 / DA931

ProBalance

Variable Orifice Double
Regulating Valves (VODRV)

PN16 / CLASS 125

Features & Benefits

- These are Y-Pattern globe valves supplied with two pressure test points P84 to provide flow measurement, regulation and isolation
- The Double Regulating feature allows the valve to be used for isolation and to be reopened to its pre-set position to maintain required flow rate
- Primarily used in injection or other circuits requiring a double regulating valve for system balancing
- Accuracy of flow measurement is $\pm 10\%$ at the full open position of the valve
- Some reduction in accuracy occurs at partial openings of the valve in accordance with BS 7350

Materials

PART	MATERIAL
Body	Ductile Iron
Bonnet	Ductile Iron
Bonnet Gasket	Non-asbestos
Disc (All sizes)	EPDM Coated Cast Iron
Disc Bush	Bronze
Stem	410 SS
Gland (65 to 150mm)	Brass
Gland (200 to 300mm)	Cast Iron
Gland Nut	Brass
Packing	Non-asbestos
Seat Ring	Bronze

Dimensions & Weights

SIZE (DN)	FACE- TO-FACE A (mm)	CENTRE- TO-TOP B (mm)	WEIGHT (kg)
65	290	262	15.8
80	310	267	19.5
100	350	300	28.0
125	400	325	37.5
150	480	340	50.5
200	600	525	123.0
250	730	575	192.0
300	850	645	251.0

Coefficients*

SIZE (DN)	FLOW (Kv)	HEAD LOSS (K)
65	85	4.9
80	111	5.5
100	146	9.2
125	250	7.3
150	380	6.5
200	600	7.8
250	1211	4.6
300	1521	6.0

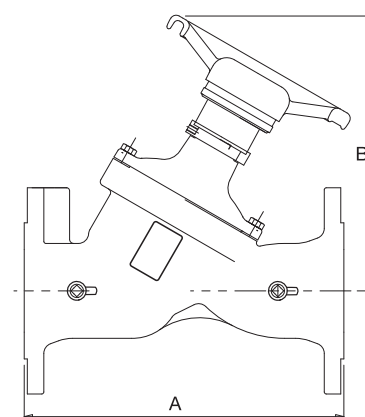
*Fully open position.



DM931

BALANCING VALVES

Dimensional Drawing



Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 120
PRESSURE (BAR)	16.0

Ratings align with BS EN 1092-2 PN16 (formerly BS 4504)



CHRYSSAFIDIS

Valid as of 01/04/12

SPECIFICATION: Conform to requirements of BS 7350: 1990

END CONNECTIONS: DM931 Ends are flanged to BS EN 1092-2 (formerly BS 4504) and DA931 Ends are flanged to ANSI B16.1 Class 125

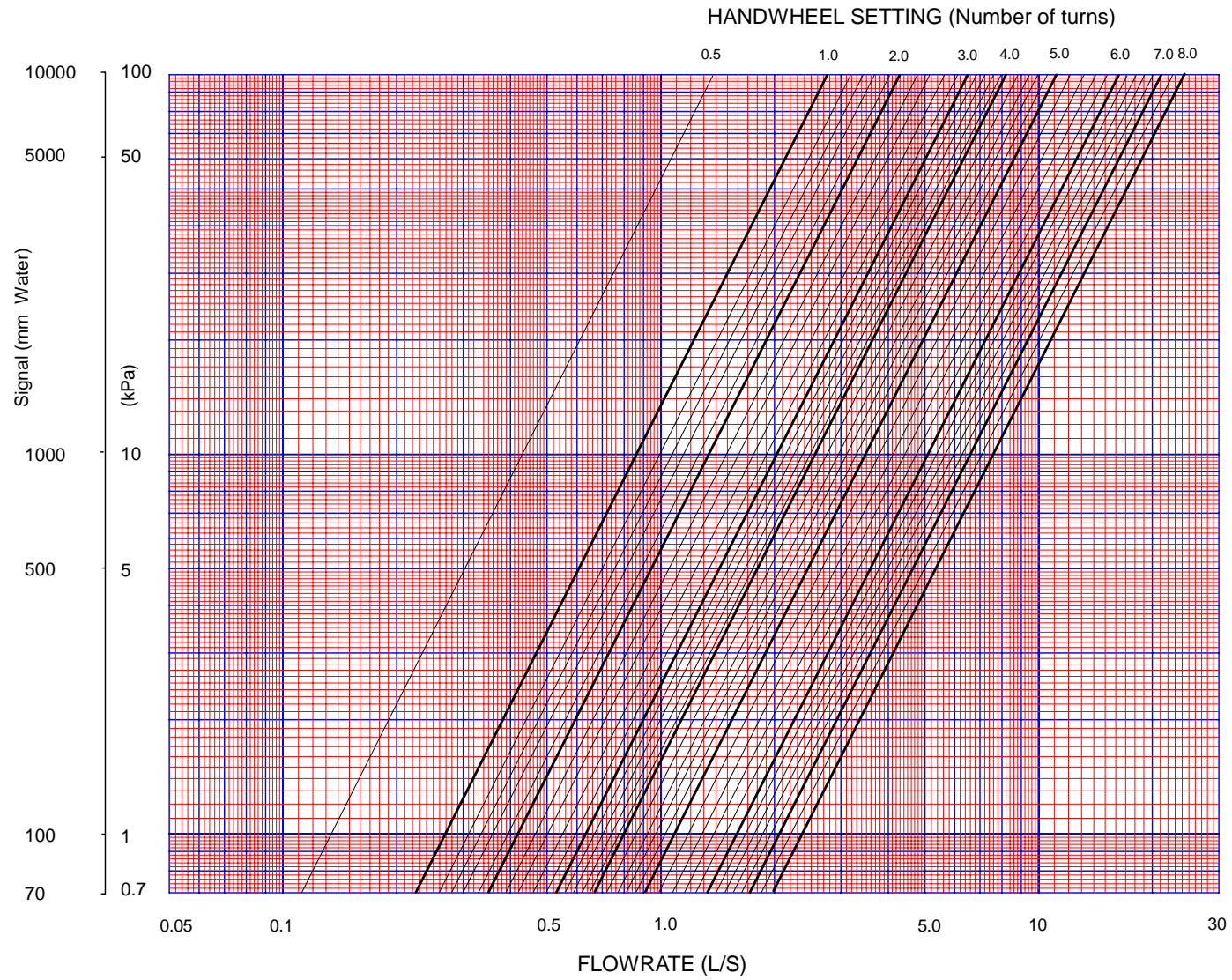
Every effort has been made to ensure that the information contained in this publication is accurate at the time of publishing. Crane Ltd assumes no responsibility or liability for typographical errors or omissions or for any misinterpretation of the information within the publication and reserves the right to change without notice.

Size 2 1/2" (65mm) DM931 / DA931



CHRYSSAFIDIS

Variable orifice double regulating valve for standard applications



Handwheel position	0.5	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
Kvs Value	5.0	10.0	12.5	15.0	19	23	29	39	57	74	85

Head/pressure loss

DM931/ DA931:

The loss resulting from the insertion of the valve in the pipeline equates to the signal measured at the pressure test valves

Calibration:

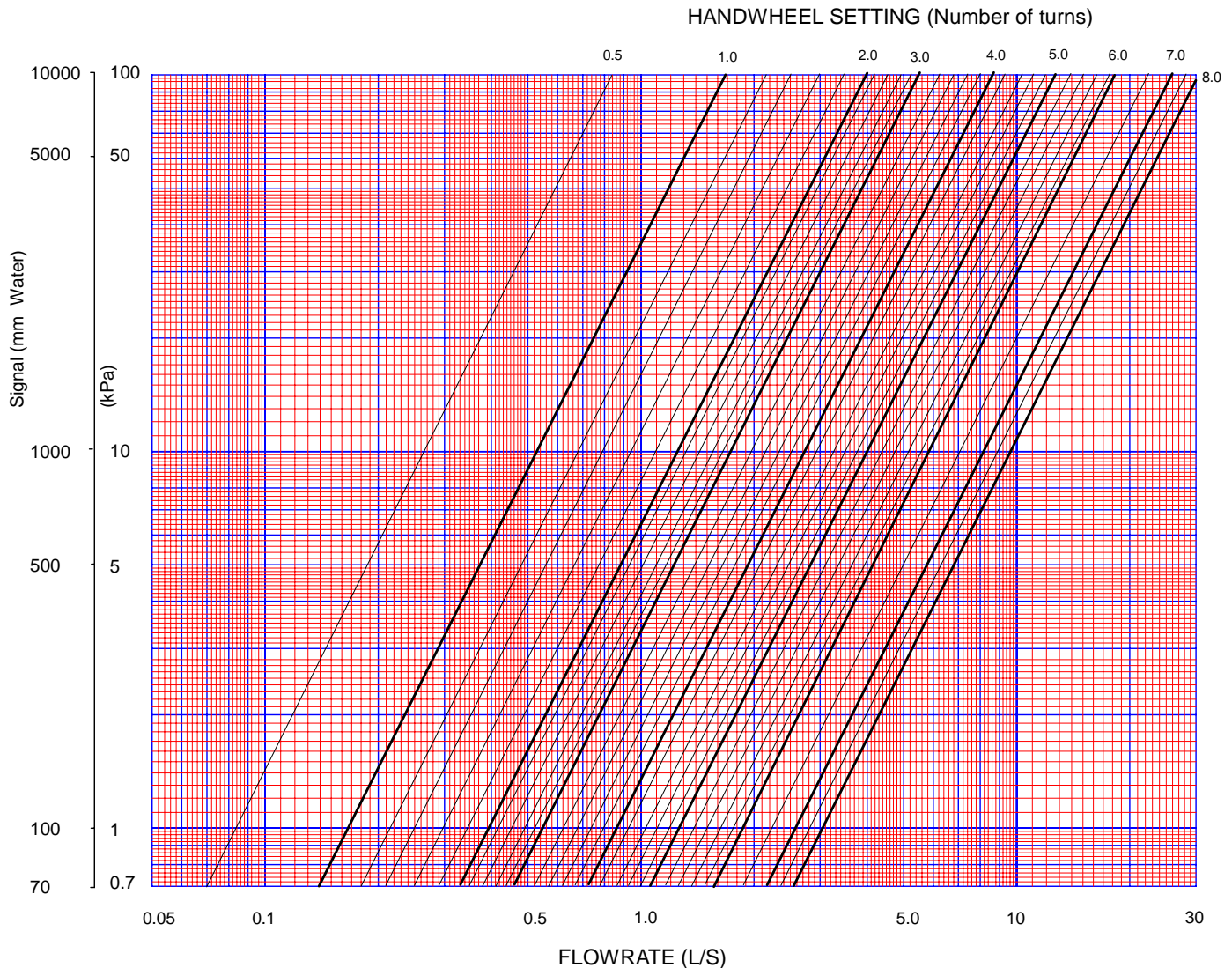
The above balancing valves have been calibrated using connecting pipework equivalent to BS1387 medium grade. Consult Crane Fluid Systems for calibration data associated with other pipe systems.



Size 3" (80mm)

DM931-DMV931-DA931-DMG931-DAV931-DAG931 CHRYSSAFIDIS

Variable orifice double regulating valve for standard applications



Handwheel position	0.5	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
Kvs Value	3.0	6.0	10	14	17	20	31	46	68	94	111

Head/pressure loss

DM931-DMV931-DA931-DMG931-DAV931-DAG931

The loss resulting from the insertion of the valve in the pipeline equates to the signal measured at the pressure test valves

Calibration:

The above balancing valves have been calibrated using connecting pipework equivalent to BS1387 medium grade.

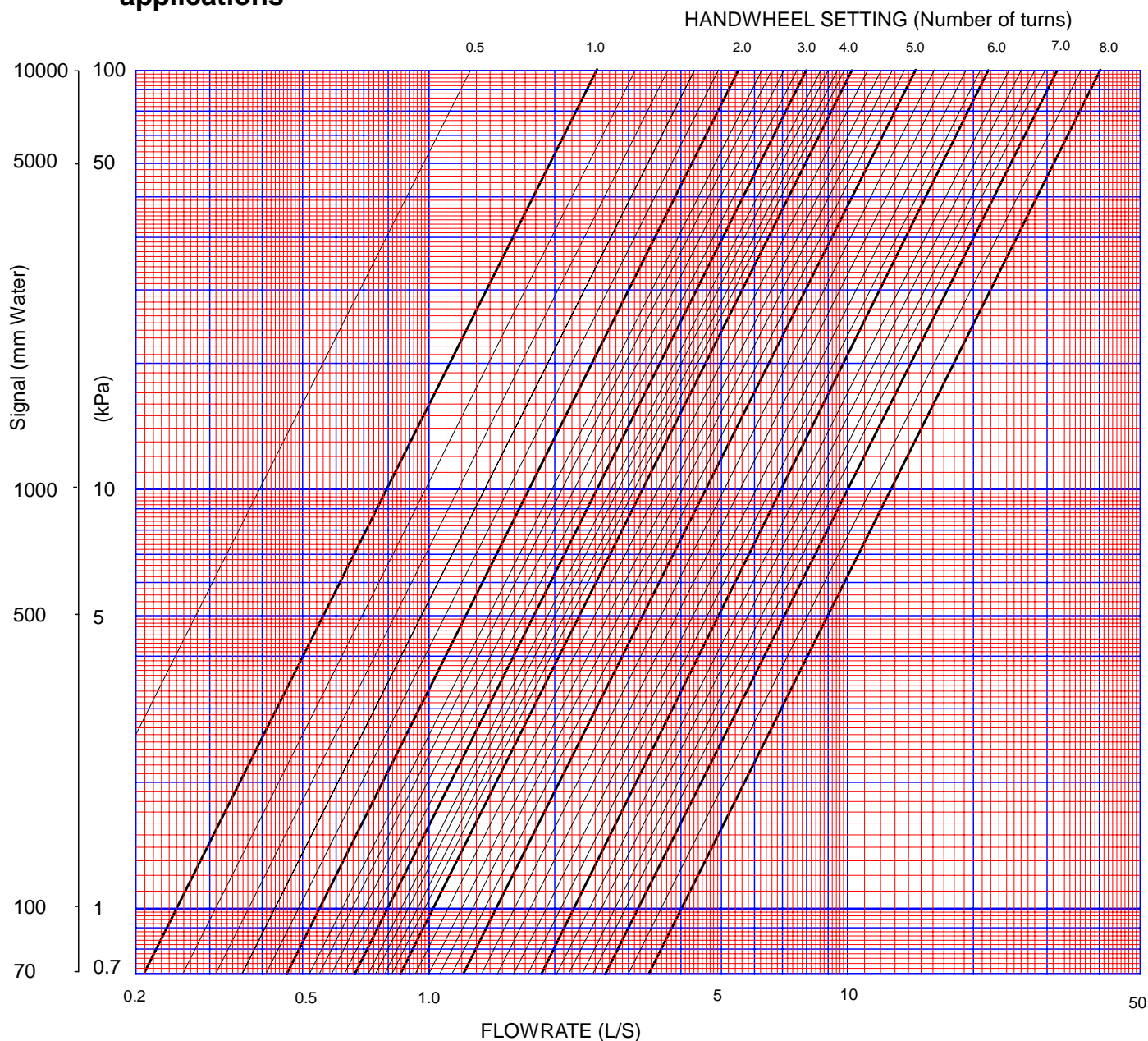
Consult Crane Fluid Systems for calibration data associated with other pipe systems.



Size 4" (100mm)

DM931-DMV931-DA931-DMG931-DAV931-DAG931 CHRYSSAFIDIS

Variable orifice double regulating valve for standard applications



Handwheel position	0.5	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
Kvs Value	4.5	9.0	14.5	20	24.5	29	37	52	80	114	146

Head/pressure loss

DM931-DMV931-DA931-DMG931-DAV931-DAG931

The loss resulting from the insertion of the valve in the pipeline equates to the signal measured at the pressure test valves

Calibration:

The above balancing valves have been calibrated using connecting pipework equivalent to BS1387 medium grade. Consult Crane Fluid Systems for calibration data associated with other pipe systems.

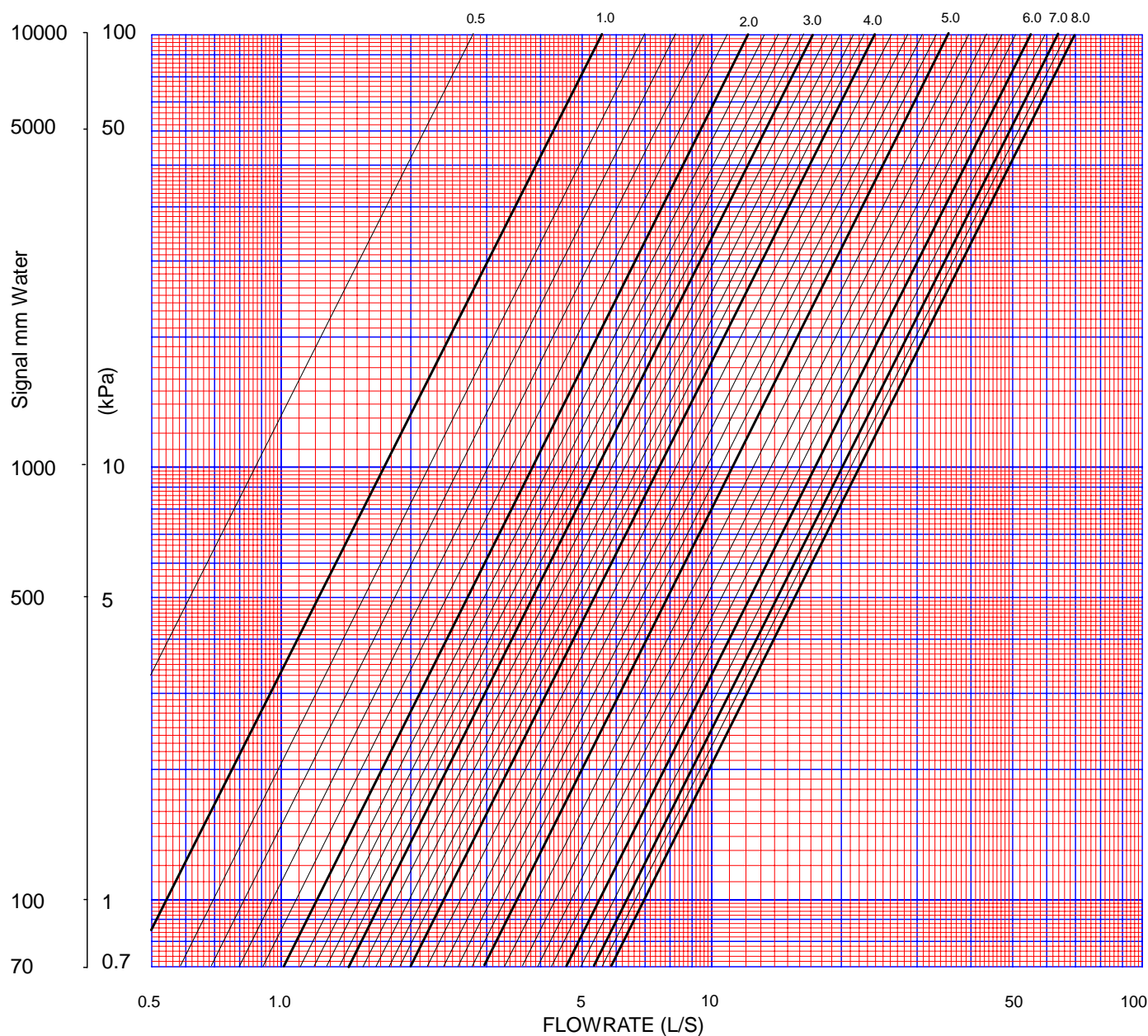


Size 5" (125mm)

DM931-DMV931-DA931-DMG931-DAV931-DAG931 CHRYSSAFIDIS

Variable orifice double regulating valve for standard applications

HANDWHEEL SETTING (Number of turns)



Handwheel position	0.5	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
Kvs Value	10	20	32	44	53	62	86	128	198	230	250

Head/pressure loss:

DM931-DMV931-DA931-DMG931-DAV93-DAG931:

The loss resulting from the insertion of the valve in the pipeline equates to the signal measured at the pressure test valves

Calibration:

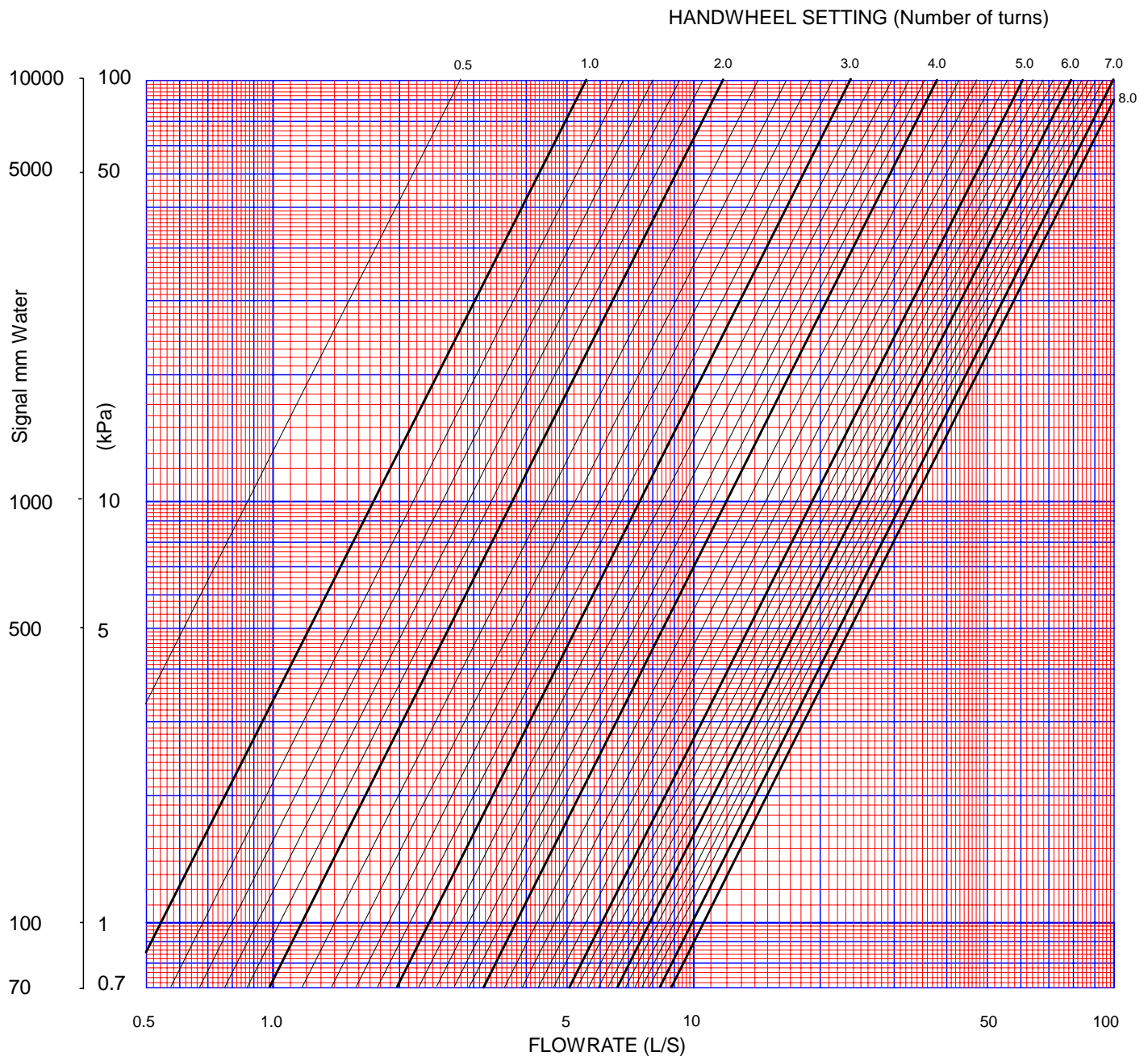
The above balancing valves have been calibrated using connecting pipework equivalent to BS1387 medium grade. Consult Crane Fluid Systems for calibration data associated with other pipe systems.



Size 6" (150mm)

DM931-DMV931-DA931-DMG931-DAV931-DAG931 CHRYSSAFIDIS

Variable orifice double regulating valve for standard applications



Handwheel position	0.5	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
Kvs Value	10	20	31	42	63.5	85	137	217	284	351	380

Head/pressure loss

DM931-DMV931-DA931-DMG931-DAV931-DAG931

The loss resulting from the insertion of the valve in the pipeline equates to the signal measured at the pressure test valves

Calibration:

The above balancing valves have been calibrated using connecting pipework equivalent to BS1387 medium grade.

Consult Crane Fluid Systems for calibration data associated with other pipe systems.

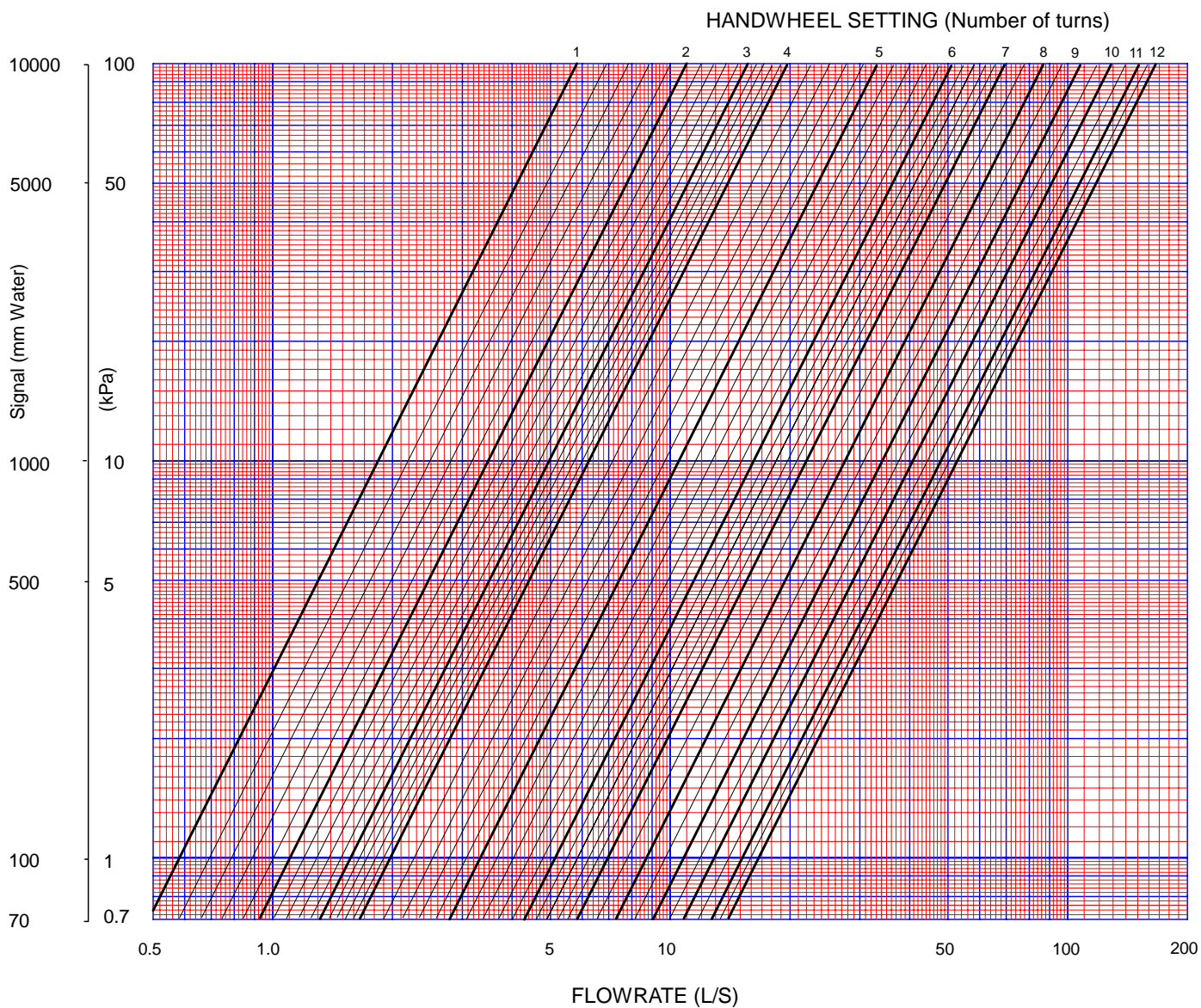


Size 8" (200mm)

DM931-DMV931-DA931-DMG931-DAV931-DAG931

CHRYSSAFIDIS

Variable orifice double regulating valve for standard applications



Handwheel position	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
Kvs Value	21	40	57	72	120	185	250	315	390	470	550	600

Head/pressure loss

DM931-DMV931-DA931-DMG931-DAV931-DAG931

The loss resulting from the insertion of the valve in the pipeline equates to the signal measured at the pressure test valves

Calibration:

The above balancing valves have been calibrated using connecting pipework equivalent to ANSI B36.10 Schedule 40

Consult Crane Fluid Systems for calibration data associated with other pipe systems.



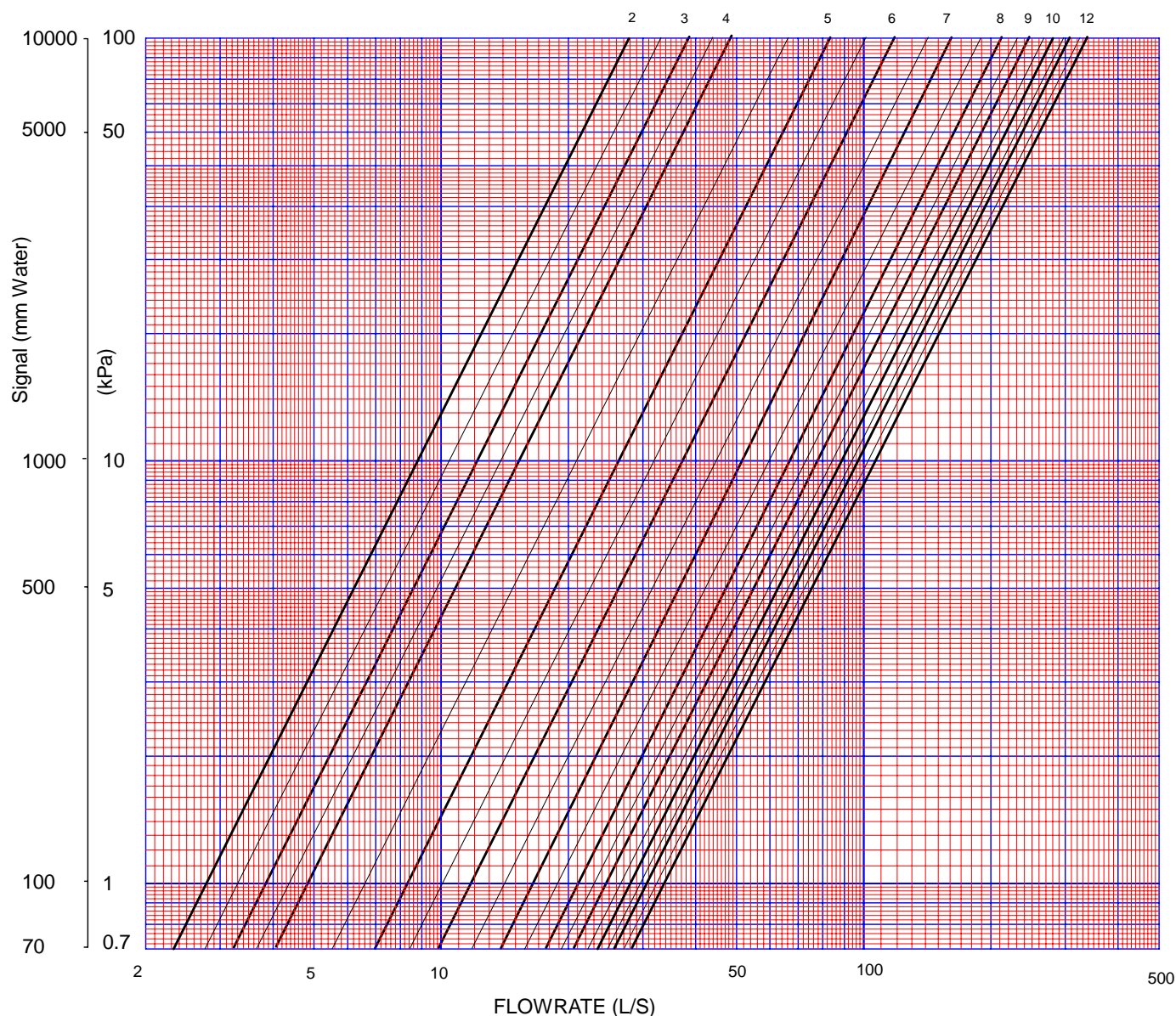
Size 10" (250mm)

DM931-DMV931-DA931-DMG931-DAV931-DAG931

CHRYSSAFIDIS

Variable orifice double regulating valve for standard applications

HANDWHEEL SETTING (Number of turns)



Handwheel position	2	3	4	5	6	7	8	9	10	11	12
Kvs Value	100	138	176	301	426	594	762	889	1015	1113	1211

Head/pressure loss

DM931-DMV931-DA931-DAG931-DMG931-DAV931:

The loss resulting from the insertion of the valve in the pipeline equates to the signal measured at the pressure test valves

Calibration:

The above balancing valves have been calibrated using connecting pipework approximating to ANSI B36.10 schedule 40. Consult Crane Fluid Systems for calibration data associated with other pipe systems.



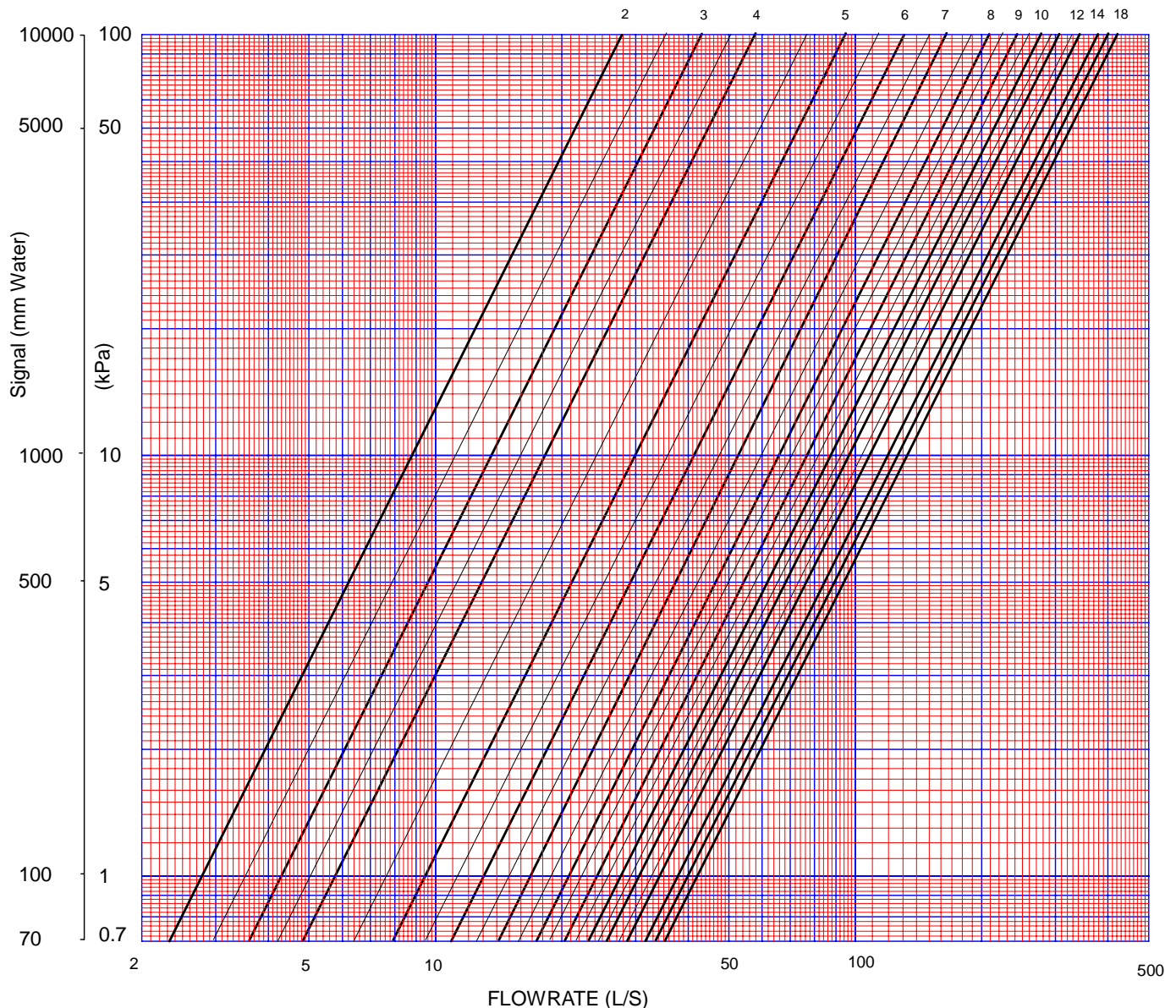
Size 12" (300mm)

DM931-DMV931-DA931-DMG931-DAV931-DAG931

CHRYSSAFIDIS

Variable orifice double regulating valve for standard applications

HANDWHEEL SETTING (Number of turns)



Handwheel Position	2	3	4	5	6	7	8	9	10	11	12	14	16	18
Kvs Value	100	155	210	341	471	610	749	872	994	1112	1230	1369	1438	1521

Head/pressure loss

DM931-DMV931-DA931-DAG931-DMG931-DAV931:

The loss resulting from the insertion of the valve in the pipeline equates to the signal measured at the pressure test valves

Calibration:

The above balancing valves have been calibrated using connecting pipework approximating to ANSI B36.10 schedule 40. Consult Crane Fluid Systems for calibration data associated with other pipe systems.